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Why We Harm the Ones We Love: Proclivity and Predictive factors of Domestic Violence Perpetration

By

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VOLUME I of II

Thesis submitted in acknowledgement of the regulations set by
the University of Kent at Canterbury for the degree of Doctor
of Philosophy

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Declaration

I declare that this thesis entitled “Why We Harm the Ones We Love: Proclivity and Predictive Factors of Domestic Violence Perpetration” is the independent work of the author. The work herein was conducted during a full-time postgraduate studentship with the School of Psychology at the University of Kent (September 2013 – September 2017), funded through a Graduate Teaching Assistantship Scholarship. The author has not been awarded for any degree or any other university for the research included in this thesis.

Publications

Content within this thesis has been published in the following **journal articles**:

Ruddle, A., Pina, A., & Vasquez, E. (2017). Domestic violence offending behaviors: A review of the literature examining childhood exposure, implicit theories, trait aggression and anger rumination as predictive factors. *Aggression and violent behavior, 34*, 154-165.

Research included in this thesis has been presented at the following **conferences**:

Ruddle, A., Vasquez, E., & Pina, A. (2015, July). '*Angry thoughts could make you violent: The role of angry rumination as a predictor for domestic violence proclivity*'. Paper presented at the Division of Forensic Psychology Annual Conference (DFP), Manchester, UK.

Ruddle, A., Vasquez, E., & Pina, A. (2015, August). '*Thinking angry thoughts and violence: The role of angry rumination as a predictor for domestic violence proclivity*'. Paper presented at the European Association of Psychology and Law (EAPL), Nuremberg, Germany.

Ruddle, A., Duggan, M., Malovic, A., & Sagrillo-Scarpatti, A. (July, 2016). '*An (Un) just System? Policy, Prevention and Intervention in Gender Violence*'. Symposium accepted for presentation at the International Society for Justice Research conference (ISJR), Kent, UK.

Dedication

I would like to dedicate this thesis to my parents, Aubrey and Dakota Ruddle for their unwavering love and support, and for putting me through the best education possible. I appreciate their sacrifices and hard work and would not have been able to get to this stage without them.

I would also like to dedicate this thesis to all the victims and perpetrators of domestic abuse, with the anticipation that the work within this thesis will, in some way, contribute to the reduction of this tragic global problem.

It is said that even before a river falls into the ocean, it trembles with fear. It looks back at the whole journey, the peaks of the mountains, the long winding path through the forests, through the people, and it sees in front of it such a vast ocean that entering into it is nothing but disappearing forever. But there is no other way. The river cannot go back. Neither can you go back. Going back is impossible in existence; you can only go forward. The river has to take the risk and go into the ocean. And only when it enters the ocean will the fear disappear, because only then will the river know that it is not disappearing into the ocean; rather, it is becoming the ocean - Osho.

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This thesis would not have been possible without the immeasurable support, guidance and encouragement from my supervisor Dr Jane Wood. I am extremely grateful for the values of professionalism and attention to detail that Jane has instilled in me; she has been the most excellent example of the type of academic researcher and professional I aspire to be. – *Thank you Jane! I will always be eternally grateful to you for taking a chance on me, taking a leap of faith, and for constantly putting up signposts for me to follow in times of uncertainty and indecision.*

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Throughout this journey I've had the pleasure of making some great friends and colleagues from all walks of life, who have all in one way or another contributed to this

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Abstract

This thesis presents the development and validation of the first gender neutral domestic violence (DV) proclivity and predictors tool, as a contribution to addressing this major global public health concern, by reviewing existing DV tools and providing evidence for the development and validation of a DV proclivity scale. An examination of the literature suggests that there are three potential predictive factors of (DV) proclivity and perpetration (i.e., childhood exposure to DV, angry rumination, implicit theories), that are theoretically related to common DV behavior (i.e., interpersonal aggression). For instance, researchers have observed that angry rumination prolongs aggressive priming (Pedersen et al., 2011) that increases the likelihood of displaced aggression (Vasquez, Denson, Pedersen, Stenstrom & Miller, 2005), which is associated with the pattern of DV behavior. Therefore, the current research was aimed towards the development of a single DV tool that (1) assessed these three predictors; (2) measured DV proclivity; and (3) was gender neutral – i.e., assesses both male and female perpetrators.

To this end, seven empirical studies are presented in this thesis. Studies 1 and 2 were conducted to develop, finalise and replicate the final DV Proclivity scale (DVPPT; Ruddle et al., in prep), based on factor analyses and the assessment of its psychometric qualities (i.e., the internal consistency and validity). Studies 3 and 4 were conducted to determine the concurrent validity of the DVPPT by assessing the constructs of the DVPPT alongside measures theoretically suggested to be positively and negatively associated with DV (i.e., displaced aggression). Study 5 explores the role of traditional gender role beliefs in relation to DV proclivity, and DV myth acceptance and victim blame are examined as potential additional predictors of DV proclivity. The last two studies (Study 6 and 7) were conducted

to revise the DVPPT to make it more accessible for individuals with literacy difficulties, specifically dyslexia, following participant feedback from the previous studies.

Collectively, these results demonstrate the good internal reliability, concurrent validity, and gender neutrality of the DVPPT and the DVPPT (Dyslexia-R). In addition, childhood exposure to DV, angry rumination and implicit theories are shown as predictors of DV, and traditional gender role beliefs as a predictor of DV proclivity. Following this, the findings of the current research are summarised, limitations discussed and the directions of future research are presented.

Introduction and Outline of Thesis

“People are more likely to be killed, physically assaulted, hit, beaten up, slapped or spanked in their own homes by other family members than anywhere else, or by anyone else in our society” (Gelles & Cornell, 1990, p. 11).

1. Background and Aims of Thesis.

1.1. The Problem. Domestic violence (DV) is an increasing public health problem that has detrimental consequences for victims (i.e., primarily intimate partners and/or children). It places a strain on the economy and the general welfare of society, and negatively impacts the futures of the perpetrators family. Historically, DV research has focussed on victims of DV due to the high prevalence and the negative physical and mental health consequences they suffer such as depression and anxiety (Capaldi, Knoble, Shortt, & Kim, 2012; Coker et al., 2002). For example, the life-time prevalence of females who experience physical or sexual violence has been estimated to be between 15% to 71%, of which the majority fell between 29% to 62% (Rettenberger & Eher, 2013). However, recently, there has been a shift in focus towards DV perpetrators, specifically the exploration of gender differences between male and female perpetrators, both in heterosexual (Hester, 2013; Kernsmith, 2006) and same-sex relationships (Seelau & Seelau, 2005; Tesch, Bekerian, English, & Harrington, 2010); in DV-related cognitive distortions (Dempsey & Day, 2011; Larkins et al., 2015; Pornari, Dixon, & Humphreys, 2013); perpetrators’ motivations (Bair-Merritt et al., 2010; Langhinrichsen-Rohling, McCullars, & Misra, 2012); and DV treatment evaluations (Kernsmith, 2005; Langlands, Ward, & Gilchrist, 2009).

Following the recent developments in DV literature considering DV perpetrators, the aim of the current thesis is to investigate DV proclivity through the integration of known and exploratory predictive factors of DV perpetration, to inform the development of a DV Perpetrator Proclivity and Predictors tool. This exploration is important as there is currently

no published research, to the author's knowledge, that has explored DV proclivity, and/or constructed a single tool to assess: (1) known predictive factors of DV (e.g., childhood exposure to DV); (2) new risk factors that are related to DV behavior such as angry rumination; (3) DV proclivity to more different forms of DV; and (4) DV-related implicit theories.

1.2 What we know about DV Perpetrators. What we do know from past research is that DV perpetrators are a highly heterogeneous offending group (Dixon & Browne, 2003). This is supported by the varied nature of DV outcomes for victims, leaving the formulation of predictable patterns of offending behavior inconsistent across the literature. Researchers have developed DV perpetrator typologies as a way to categorise types of DV offenders and understand how certain situational and individual factors influence DV perpetration.

The most widely cited DV perpetrator typology is *Holtzworth-Munroe and Stuart's (1994) threefold model* (e.g., Hamberger, Lohr, Bonge, & Toli, 1996; Jacobson & Gottman, 1998), which outlines three types of DV offenders. These are 'Family Only' batterers, 'Generally Violent/Antisocial' batterers and 'Dysphoric/Borderline' batterers. From these clusters, the 'family only' category and the 'generally violent/antisocial' type of batterers are of most interest in the current research. This is due to the focus on developmental predictors and motivations that influence DV proclivity that are not influenced by mental health disorders and/or learning disabilities. While factors associated with individuals with mental health disorders and/or learning disabilities are important to consider, they are not within the scope of the current project.

According to the Holtzworth-Munroe and Stuart's (1994) typology, the 'family only' subgroup were categorised to be the least violent in comparison to the other subgroups, and the abuse was directed only to their family. The 'generally violent/antisocial' group of batterers were the most violent, both towards their intimate partners and outside the family.

Within this subgroup, it was found that the batterers also were likely to have a history of anti-social behavior, substance misuse, criminal behavior, arrests and not likely to conform to social norms (Holtzworth-Munroe, 2000). This distinction between these two subgroups is important as it highlights the homogeneity of DV offenders and shows that different developmental and social factors influence each type in a different way. For example, socialisation processes, childhood experiences, and attachment have been shown to vary across the three subgroups (Holtzworth-Munroe, 2000). It also enables researchers to identify other subtypes of DV offenders (e.g., Dixon & Browne, 2003; Johnson et al., 2006), and work towards understanding the differences across the subtypes to better inform treatment.

Another widely cited DV typology, built using the feminist perspective of the role of control within a DV relationship, to help understand DV is *Johnson's Control Typology* (Johnson, 1995). Johnson's model suggests that DV offenders can be categorised into one of four groups, namely: 'intimate terrorism', 'violent resistance', 'situational couple violence' and 'mutual violent control' (Johnson, 1995; Johnson, 2010). This typology suggests that DV is based on control and the context in which this is exhibited, rather than simply the use of violence (Johnson, 2010). This distinction in context being defined as either *intimate terrorism* or *situational couple violence*. Specifically, *intimate terrorism* is when males exert behaviors of coercive control over females in heterosexual relationships. Whereas, *situational couple violence*, is when males use control towards their partner following particular situations of conflict that occur/escalate (Johnson, 2010).

When considering the distinctions between both subgroups, Johnson (2006) found that males were more violent than females, even in the situational couple violence subgroup. He found that the frequency and severity of violence was higher in the intimate terrorism group compared to the situational couple violence group. And, a third key difference was that wives in the intimate terrorism groups reported that they rarely responded to their partner's

violence, however this was not the case among the wives in the situational couple violence group. These differences highlight the importance of understanding subgroups of offenders, as they differ in behaviors, and therefore presumably motivations, cognitions and attitudes towards DV. Also, it highlights the usefulness of collecting information from both males and females, which is not common across DV literature.

Therefore, while there is still more to unpick across these typologies, it remains clear that one's development, childhood experiences and adjustment impact their life trajectory, and this is the focus of the current research. Specifically, to explore key developmental predictors and how they influence DV proclivity. In addition, across both types of offender/offending behavior, it is evident that there are different contributing factors, however both motivated by this drive to exert power over an intimate partner. For example, considering intimate terrorism, the controlling behaviors that are practiced relate to emotional/psychological abuse, which is currently difficult to psychometrically assess. The current research considers this in its design and assesses how specific proposed and evidenced developmental factors/predictors (e.g., childhood exposure to DV, angry rumination and implicit theories) are related to self-reported DV proclivity toward physical abuse, sexual abuse, emotional abuse and financial abuse/controlling behaviors. Therefore, although Johnson's typology helps to contextualise DV to some extent, and provides valuable information about the couple and their violent and controlling behaviors, it does not explain any motivational factors that are linked to psychosocial, cognitive or behavioral constructs.

Generally, early research into DV perpetration focussed on identifying risk factors and common characteristics to provide more information to reduce high recidivism rates, and better inform DV interventions. The most cited predictive factors across the literature include exposure to DV during childhood (e.g., Bevan & Higgins, 2002; Murrell, Christoff, & Henning, 2007); family violence (e.g., Moylan et al., 2010); a history of drug and/or

substance abuse; mental health problems; and unemployment (e.g., Riggs, Caulfield, & Street, 2000; Stith, Smith, Penn, Ward, & Tritt, 2004). Many of these have been used to inform assessment of offenders, DV screening, and other forms of tools used within the field of DV. Some other common characteristics include: heterosexual males in their late twenties to early thirties, and psychological dysfunction/mental health problems. (e.g., Anderson, 2014). From this, it is clear that DV is an on-going societal problem that needs more research focused on the development and persistence of pro-DV offending attitudes, in line with prevalent psychosocial and cognitive behavioral factors that contribute to DV. However, before discussing contributing factors of DV offending attitudes, it is important to first discuss the most relevant theoretical explanations for the phenomenon in general.

1.3. The Main Theoretical Frameworks that Explain DV *Perpetration*. The main theories that have been linked to DV include: Feminist Theory (also discussed within a Sociocultural context, Bell & Naugle, 2008), Social Learning Theory (Bandura, 1977), Conflict Theory (e.g., Adams, 1965), Attachment Theory (e.g., Whitaker et al., 2006), Social Situational/Stress and Coping Theory (e.g., Furnham & Brochner, 1986; Lazarus & Folkman, 1984), Resource Theory (e.g., Atkinson, Greenstein & Lang, 2005), Exchange/Social Control Theory (Gelles, 1983), Nested Ecological Theory (Dutton, 1995), and Patriarchy (e.g., Dutton & Nicholls, 2005). In a recent review of feminist, social learning and ecological theories of DV, it was concluded that no single theory could explain DV, but that each of these perspectives contributed in some way (Ali & Naylor, 2013a). This was further supported by another review conducted on the biological and psychological perspectives for DV (Ali & Naylor, 2013b). For the purposes of this thesis, the focus is on theories/approaches that contribute to the explanation of DV proclivity and perpetration from a developmental perspective (i.e., theories concerned with an individual's development and

predictors of DV perpetration). These will be discussed in two main clusters; (1) Feminist approaches, and (2) Sociological perspectives.

1.3.1 Feminist approaches. The **feminist approaches** to domestic violence (DV), particularly intimate partner violence, are predominant perspectives that conceptualises DV as being motivated by control and power, stemming from traditional patriarchal views that endorse male dominance over females in heterosexual relationships (e.g., Anderson, 1997; Bagshaw, 2011; Dobash & Dobash, 1979). One important aspect of these traditional patriarchal views are the **traditional gender roles** that males and females have within society, and similarly within their homes. The term ‘gender roles’ has been defined as “expectations about what is appropriate behavior for each sex” (Weiten 1997, p.325). Examples of traditional gender role beliefs previously researched include endorsing attitudes that males should be masculine, strong, and provide financially for the family; and females should be feminine, delicate and should primarily stay at home and take care of the household and children (e.g., Kerns & Fines, 1994). Feminist researchers posit that DV is the result of a males need or drive to exert power and control over their female partner in order to fulfil their traditionally acceptable role as a male. Studies have found that the severity of the DV can be attributed to gender differences in how strongly males hold these traditional gender role attitudes compared to females (Leonard & Senchak, 1996), which may help explain why more heterosexual males have been historically reported as DV perpetrators (e.g., Henning, 2004; Murrell, Christoff & Henning, 2007).

Researchers have looked at the developmental processes and sustainability of traditional gender role beliefs and have found that many individuals learn the nature of traditional gender roles during childhood (i.e., through parental modelling), and when reinforced through socialisation processes (i.e., peer groups, school, television), are more likely to view them as being acceptable in adulthood (e.g., Bell & Naugle, 2008; Mihalic &

Elliot, 1997). This is problematic, as it suggests, according to the feminist perspective, that males in particular, who have been exposed to modelled traditional gender roles from an early age, and go through gender role socialisation, may be more likely to exert behaviors that are driven by the need for power and control to ensure these roles are maintained in adulthood. While this appears plausible for some individuals who engage in DV, it does not explain what other factors may contribute to the cognitive, behavioral and social development of these beliefs. It also does not seem to consider the role of other **adverse childhood experiences** that may occur during this developmental phase such as household substance abuse, incarceration, or mental illness in one's family, that have been shown to relate to harmful life events in later life (e.g., Dube et al., 2001; Felitti et al., 1998).

Similarly, Dube et al. (2003) found that adverse childhood experiences (e.g., emotional, physical, and sexual abuse; forms of neglect; witnessing DV) were related to illicit drug use, and they suggest this may be a way by which these individuals try to escape or disassociate from the emotional strain, feelings of anger and anxiety that is caused by these experiences (Dube et al., 2003). They also highlight that this is more likely among individuals who struggle with emotional regulation and those that feel helpless in chaotic, dysfunctional family environments (Dube et al., 2003). This is important as it shows how the presence of DV within a home has a long-lasting impact on the life trajectory of a child, and plays a vital role in how they interpret similar situations and the types of attitude they form towards DV behaviors generally. Likewise, it is during the early stages of development when an individual begins to develop cognitive representation of their social environment through social information processing (Anderson, 1995) and the creation of cognitive scripts and schemas, which they go onto rely on in future interactions. Therefore, to this end, the current project aims to explore how other common risk factors of DV perpetration may interact with the gender role socialisation, specifically, how witnessing DV and/or being a victim of DV

may influence these beliefs. The role of other cognitive beliefs and thought processes that may develop at a similar time to these traditional gender role beliefs will also be explored as potential contributing factors, specifically the role of implicit theories related to DV and angry rumination. These constructs will be discussed in more detail in the next chapter.

In line with traditional gender roles, there are **tactics** males use to exert control over females, such as physical violence, threatening behavior, aggression and sexual coercion (e.g., Feder & Henning, 2005). The negative physical and mental health impact these tactics have on their victims (e.g., physical injury, PTSD, depression) has been widely researched (see Campbell et al., 2002), and highlights the need for further research. Across the literature there are two key models which are the most relevant to the current research in contributing to our understanding of the tactics used by perpetrators. Both models illustrate behavioral patterns of the perpetrator toward the victim in order to maintain control and power, and they may help us understand why the victim may stay in the relationship, according to the feminist perspective. These are the Power and Control Wheel (Pence & Paymar, 1993), and the Cycle Theory of Violence (Walker, 1980), also referred to as the ‘cycle of abuse’.

Firstly, the ‘**Power and Control wheel**’ (see Figure 1) was developed as a framework to depict male batterers DV behavior/tactics (e.g., isolation, coercive control), that are used towards their female partners (Pence & Paymar, 1993), in order to satisfy, to some extent the male offenders need for control and power. This model presents eight non-physically abusive behaviors that batterers use to exert power and control over their partners. These tactics are irregular and unpredictable (Burge, Katerndahl, Wood, Becho, Ferrer & Talamantes, 2016), and make it more difficult for the victim to develop any strategies that may help (i.e., negotiation, help-seeking).

Figure 1. An illustration of the Power and Control Wheel

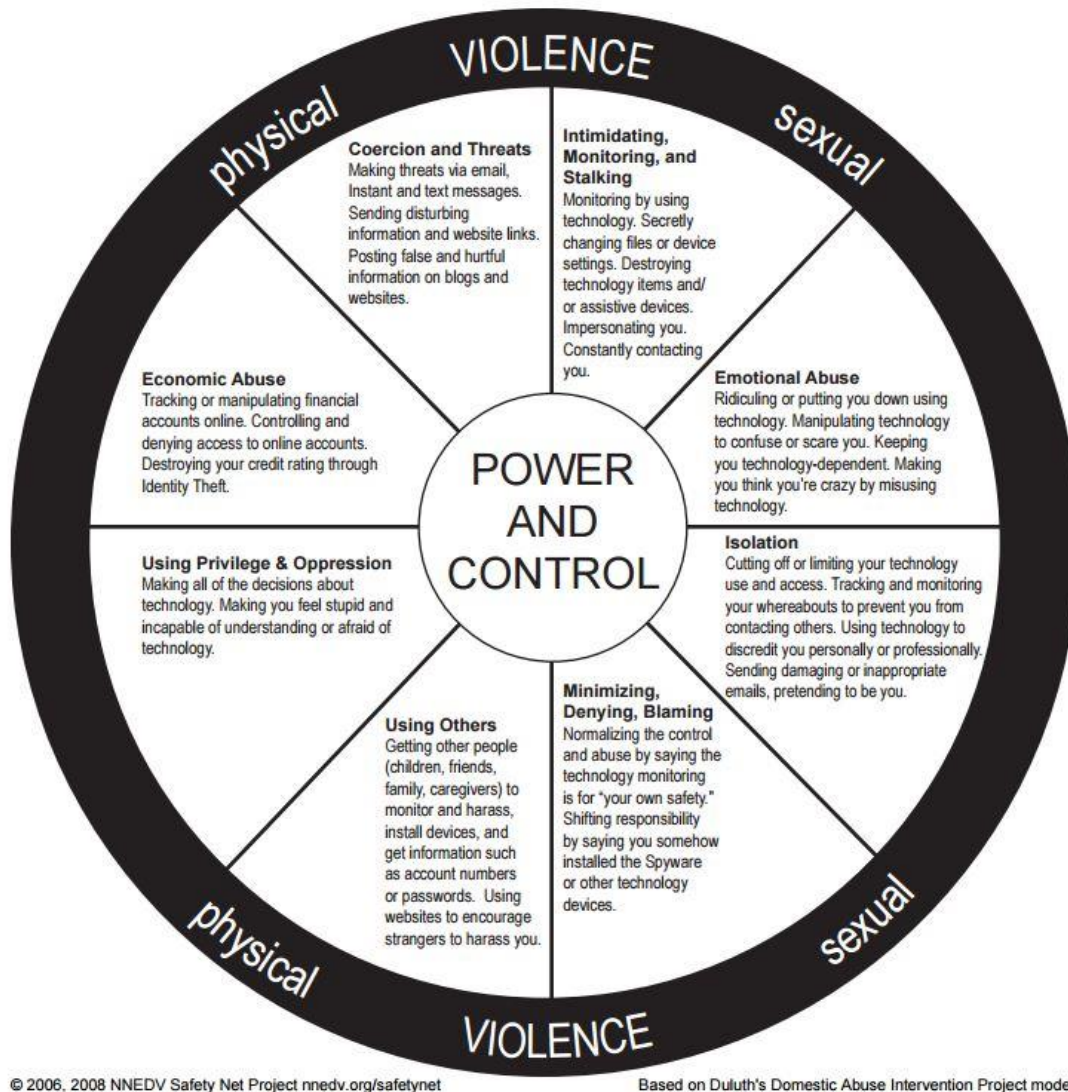


Figure 1. A pictorial representation showing the Power and Control Wheel. Adapted from “Power and Control Wheel” by DC Volunteer Lawyers Project. Copyright 2016 by DC Volunteer Lawyers Project.

This framework is used in the Duluth Model (Pence & Paymar, 1993) of DV offender treatment and has been adapted for many psychoeducational interventions (e.g., Dutton & Corvo, 2006). While this model has been developed to aid the rehabilitation of DV offenders,

its focus on male offenders originally, and on two core behavioral drives, is viewed as a limitation, given the progression of DV perpetrator research (i.e., female offenders, offenders from same-sex relationships). There still remains gaps in our knowledge regarding different subcategories of DV offenders, and their motivations (immediate and premeditated) for their behaviors.

However, from the subcategories that have been developed, specifically Johnson's typology (Johnson, 2010), the power and control wheel has been used to support it. For instance, this framework shows that within a DV relationship, according to feminist theory, the abuser can use a range of tactics that are conceptualised as coercive control, for example, isolation (Pence & Paymar, 1993), which is inherent for offenders who belong to the *intimate terrorism* subgroup. Although there is still more to learn about subcategories of offenders, some of the common DV behaviors that are included in the Power and Control Wheel (e.g., coercive control), have been suggested as learned behaviors during childhood and into adulthood from parents and primary caregivers (e.g., Hanberger et al., 1996). It is this aspect of DV that is of most interest to the current project, the contributory factors and developmental predictors of DV offending, and how exposure to DV during childhood may impact offender cognitions, motivations, coping strategies or processing methods (i.e., rumination), and developing normalised pro-DV attitudes.

Secondly, the '*cycle of abuse*' (see Figure 2), is comprised of four stages; (1) the build-up/tension stage; (2) the abuse/violent incident; (3) the reconciliation phase; and (4) the honeymoon/peaceful stage.

Figure 2. An illustration of the Cycle of Abuse

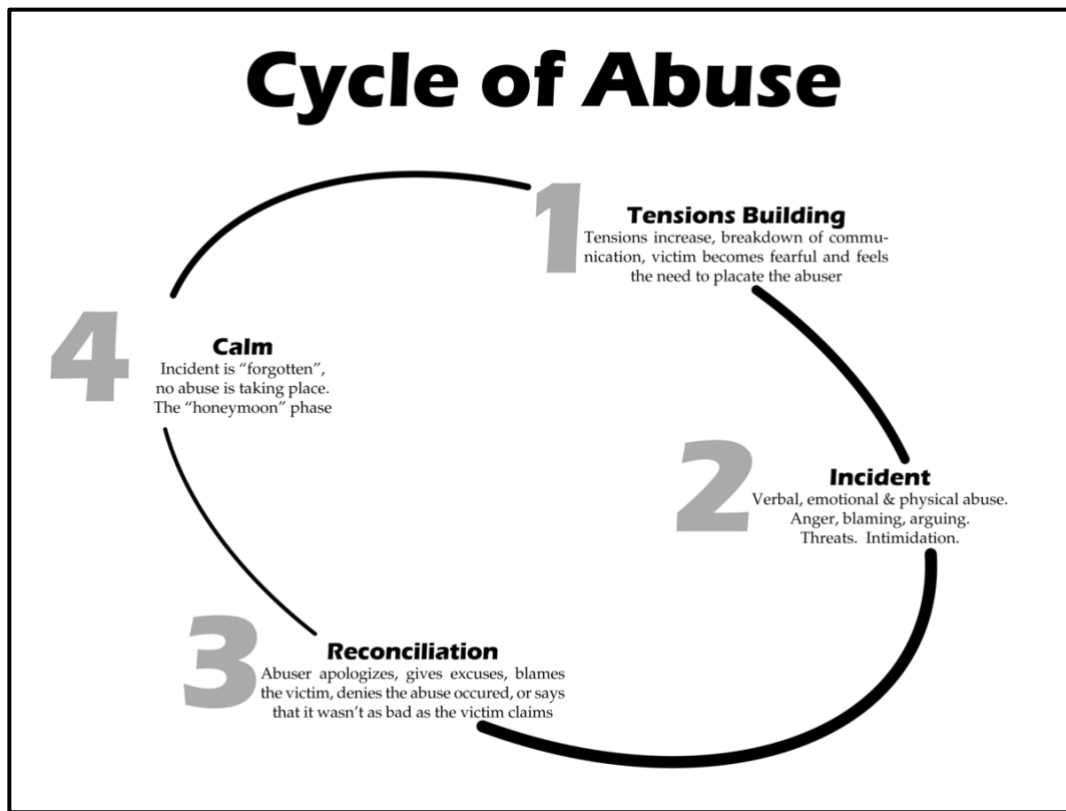


Figure 2. A pictorial representation showing the four stages of the Cycle of Abuse. Adapted from "Cycle of Abuse" by Wikipedia. Copyright 2009 by Avanduyn.

This cycle is regular and predictable, however, for some couples the entire cycle can last a few days, for others it could last a single day or a number of years. In some relationships, the victim accepting the violence, and processing it as an isolated incident, potentially attributing it to alcohol for example, can lead to strengthening the bond between them, however, it can also increase the chances of the violence happening again (Burges et al., 2016). It is also worth noting that in some relationships, the female may induce the violence (phase 2) out of fear, anxiety or to try and have more control of when the DV incident will occur and may be able to attribute it to a particular motive more easily (Young, & Gerson, 1991).

This perspective has also been criticised as some researchers find it does not account for why the target of the abuser is always the wife/spouse (e.g., Ali & Naylor, 2013a). One explanation for this could be that the majority of perpetrators recruited in developmental studies may have been of a similar typology, for example, Holtzworth-Munroe and Stuart's (1994) 'family only' batterer, as outlined previously. However, while this may be one explanation based on common behaviors and risk factors, the current thesis aims to help explain this through potential immediate antecedents for DV behaviors. For example, it is plausible, that a contributing explanation for why the target is usually an intimate partner is that through the process of triggered displaced aggression, the partner is the most consistently available target (Vasquez et al., 2013). Following an anger inducing incident, the perpetrator would return home, and if he/she has not fully processed/dealt with their anger, this is likely to be released through an act of aggression (e.g., verbal, physical, psychological), towards their partner. In addition, the role of angry rumination which enhances displaced aggression through prolonging aggressive primes (Vasquez et al., 2013), may help to further explain this dynamic. The role of angry rumination in DV perpetration and proclivity will be discussed in more detail in Chapter 1.

Subsequently, while this cycle helps us understand how some DV relationships work, it is not the case for all DV offender and victim relationships, and the most reliable research currently is limited to heterosexual relationships with male perpetrators. It does provide a valuable insight into the dyad, and illustrates the pattern of violence from the offenders' perspective, however, it is limited in its ability to assess/determine the cognitions, beliefs, and attitudes that immediately precede the violence. This is one of the current aims of this project, as it is important to understand forensic cognitions towards offending, behavioral motivations that may be influenced by childhood experiences and normalised attitudes, and the thought processes that may have directly impacted the DV. For instance, looking at the cycle of

abuse, it could be plausible that in-between each phase the offender is ruminating on what occurred in the previous phase and how to act or react. It could also be that the DV incident was heavily influenced by situational triggers that have an impact on their temperament or social informational processing abilities (e.g., high cognitive load), resulting in normalised violent behavior or displacement of anger/aggression. These aspects are discussed further in the next chapter.

In view of these models, and our current knowledge of the feminist perspective of DV, there are some limitations. One main criticism is the primary focus on gender, more specifically, the role of male power and dominance towards female victims as the pivotal explanation for DV. This single factor approach that is focused on gender has been heavily criticised as it does not consider/acknowledge the existence of females' use of power and control over males within an intimate relationship. In line with feminist ideals, DV is purported to solely occur within heterosexual relationships through the use of male power over women. Critics such as Dutton and Corvo (2006) have challenged this and stated that there is a symmetry of violence between males and females (known as **gender symmetry**). They have suggested that '*bilateral violence*' (Dutton & Corvo, 2006, p. 458), as they refer to it, is in fact the most common form of DV, and that male perpetrators and female victims in heterosexual relationships are the least common (Stets & Straus, 1992, cited in Dutton & Corvo, 2006).

This is however based on prevalence statistics that only take into account reported DV, and it is important to remember that within the dyad males and females exert different forms of violence and aggression (e.g., Archer, 2000), the nature of the DV is very complex in the patterns of behaviors exerted (e.g., coercive control, financial abuse, emotional abuse), and is heavily influenced by contextual and individual factors (e.g., temperament, mood). The current research aims to explore specific factors that will help shed some light on how

behavioral, cognitive, developmental and social aspects of one's development may lead to holding pro DV attitudes and engaging in DV in adulthood. These are specifically, angry rumination, childhood exposure to DV and the endorsement of implicit theories, and will be discussed in more detail in the next chapter.

Another criticism in relation to gender symmetry addresses the limits of this single socially constructed phenomenon in explaining the complex dynamics of DV. Johnson (2006), suggests one reason for this societal perception could be due to bias sampling through the use of what he refers to as 'agency data' (p. 1004), for samples such as women's shelters, hospitals, police records and courts. However, it is important to remember that regardless of what we know so far about DV, gender is only one aspect of an individual's identity, and although this to some extent influences how others treat an individual, for instance the perceptions people have towards female victims of sexual crimes (e.g., Grubb & Turner, 2012; Whatley & Riggio, 1993), there are other factors that contribute to oppressive and abusive behaviors, and indeed DV. For instance, researchers have emphasised the importance of how the role of power, oppression and inequality towards other factors such as age, ethnicity, sexuality and class, also influence DV, not only gender (e.g., Sokoloff & Dupont, 2005).

Specifically, how the existence of structural inequalities such as "racism, ethnocentrism, class privilege and heterosexism intersect with gender oppression" (Sokoloff & Dupont, 2005, p. 39) contribute towards fostering pro attitudes towards DV perpetration and proclivities. This is important as it enables researchers to gain a better understanding of what influences DV among individuals from diverse backgrounds (e.g., the type of additional strains to development and lifestyle; the role of cultural norms and attitudes towards DV; how same-sex partners cope with DV when belonging to a culture that may not

accept/believe that homosexuality and/or DV exists), and the impact the co-occurrence of these identities has on DV.

For example, researchers have suggested that according to the feminist perspective, DV enables the criminal justice system to further minimise the power and independence of a female victim by introducing laws and regulations that dictate what victims should do (Ali & Naylor, 2013a). In addition, it was only recently that an awareness of male victims and/or victims within same-sex relationships cast doubts on the overarching premise of feminist research into DV. There are some feminist approaches that may be relevant to the wider scope of DV, such as learned helplessness for all victims regardless of gender, however, research into the dynamics of other patterns of DV remain somewhat underdeveloped. A contemporary theory that has taken this into account, while retaining the feminist ideologies, is the **Intersectionality Theory** or Integrative Feminism (e.g., Mann, 2000; Sandberg, 2013), which will be discussed further in the next section.

1.3.2. The sociological perspectives. The **Sociological perspective** attributes DV to social norms and how individuals interact with the wider social context in informing their attitudes and behavior within a relationship. For instance, social norms could influence the beliefs and attitudes individuals have/form towards violence within an intimate relationship, such as condoning violence and aggression towards an intimate partner or family member (e.g., Murrell, Christoff, & Henning, 2007; Whitfield, Anda, Dube, & Felitti, 2003). This could be as a by-product of exposure to childhood abuse or interparental violence (Spaccarelli, Coatsworth & Bowden, 1995), where these attitudes are learnt and are reinforced through external societal normative values. Sociological theories (e.g., the Resource Theory, Social Control Theory, Social Situational/Stress and Coping Theory) have been used to explain DV; specifically the impact that the wider social context has on the behaviors experienced by the couple. From these, one key theory that has been discussed in

relation to DV is the Strain Theory (Merton, 1939) which suggests that violence is a result of frustrations people have towards difficulties they may be facing in the wider social context (Lawson, 2012). This viewpoint is different from the feminist views which emphasises the role of gender, focused on the use of power and control by males towards females within the relationship. While the justifications for these oppressive and violent behaviors may stem from societal expectations and traditional gender roles (e.g., Blackstone, 2003), most feminist theorists use this single factor gendered approach to explain DV.

As introduced earlier, one theory that highlights the complex role society and societal norms have in informing beliefs and opinions surrounding DV victims and perpetrators is the **Intersectional Theory** or Integrative Feminism (e.g., Mann, 2000; Sandberg, 2013). Intersectionality emphasises the importance of how the role of power, oppression and inequality towards other factors such as age, ethnicity, sexuality and class, also influence DV, not only gender (e.g., Sokoloff & Dupont, 2005). Specifically, how the existence of structural inequalities such as “racism, ethnocentrism, class privilege and heterosexism intersect with gender oppression” (Sokoloff & Dupont, 2005, p. 39) contribute towards fostering pro attitudes towards DV perpetration and proclivities.

For instance, considering masculinity stereotypes that exist across white males and males of colour that have been socially constructed (MacDowell, 2013), stereotypical heterosexual white males have been said to have “qualities such as intelligence, self-reliance, leadership, breadwinning ability, competitiveness, competence and aggression” (MacDowell, 2013, p. 547), and stereotypical views for black males include them being “animalistic, crime-prone, and sexually unrestrained” (MacDowell, 2013, p. 547). Therefore, individuals who are more susceptible to being influenced by societal values and beliefs through socialisation processes would be more likely to perceive and interpret instances of DV in a biased way in line with these stereotypical views. Similarly, associations have been found

between those who endorse traditional gender role beliefs and blame the victim, after having formed normative attitudes towards DV, in particular, a male perpetrator and female victim within a married context (e.g., Nabors & Jasinski, 2009). While this is only an example of how one category can influence the perceptions of DV, there are multiple factors (e.g., class, sexuality) that make up the intersectionality of DV that requires more attention.

It is clear that intersectionality of DV widens the scope of influence on individual differences and the development of attitudes and beliefs of what constitutes an intimate relationship. This is also important to consider as it enables researchers to gain a better understanding of what influences DV among individuals from diverse backgrounds (e.g., the type of additional strains to development and lifestyle; the role of cultural norms and attitudes towards DV; how same-sex partners cope with DV when belonging to a culture that may not accept/believe homosexuality and/or DV exists), and the impact the co-occurrence of these identities has on DV. For instance, research has shown that highly severe and lethal forms of DV occurs among women of colour from poor socio-economic backgrounds (e.g., Benson & Fox, 2004), and it is still unclear how different individual, cultural and structural factors may influence this. For instance, even though all individuals are exposed to specific cultural and societal messages about gender roles and relationship, this does not explain why some males are not violent, abusive or controlling towards their intimate partners. Without assessing individuals' attitudes and beliefs towards societal norms and values, such as traditional gender norms, and observing how these are related to known predictors of DV, it will remain an area in need of further research.

One theoretical explanation for DV that considers multiple factors that are predictive of abuse at each level of the social ecology is the **Nested Ecological Model** (Dutton, 1995). This model builds on our current understanding of DV predictors and works towards isolating

factors that may contribute to individuals forming DV proclivity and/or having inhibitions towards DV perpetration.

1.3.3. The nested ecological theory (Dutton, 1995). This theory remains a widely referred to perspective in explaining DV (Schumacher, Feldbau-Kohn, Smith Slep, & Heyman, 2001). It comprises of four levels (i.e., the individual, relationships, the community and society), and suggests that it is the interaction between society and the individual at each level, that contributes to DV (see Figure 3 for Model).

Figure 3. An Illustration of the Nested Ecological Theory

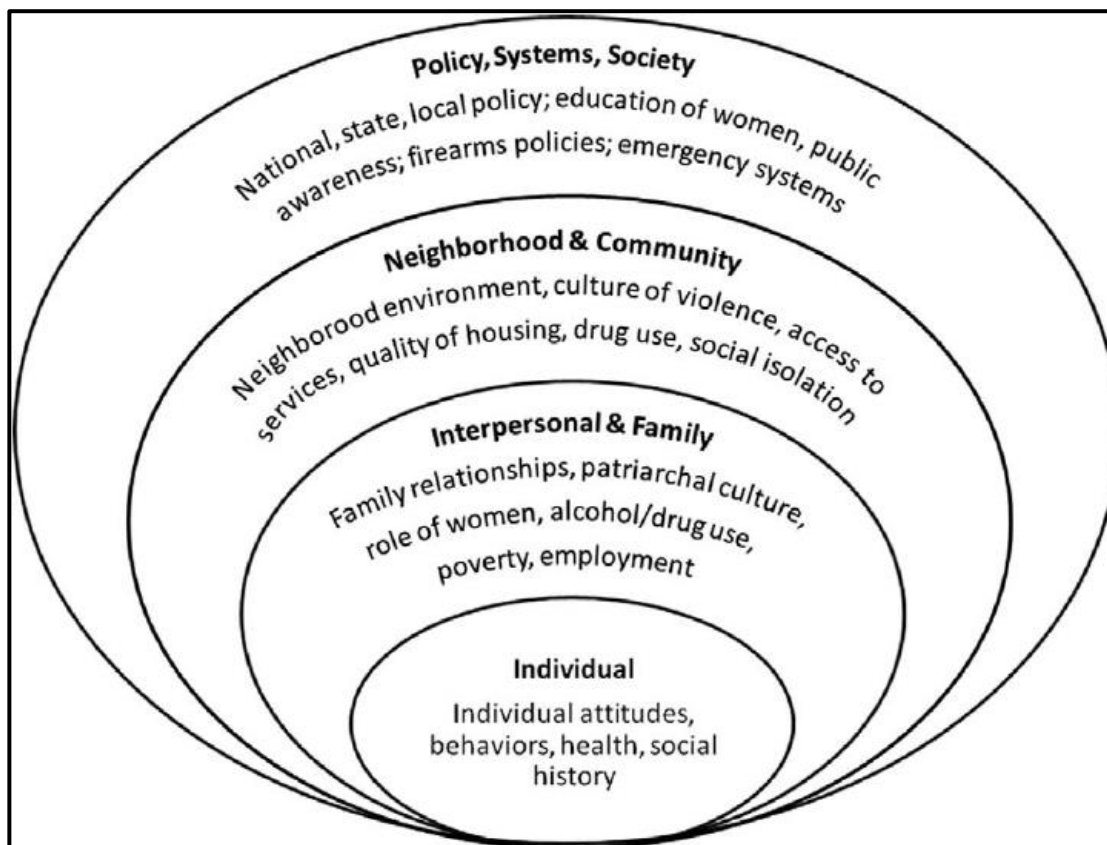


Figure 3. This is a model to represent the Nested Ecological Theory, showing how factors within each domain could play a role in explaining DV. Adapted from “Neighborhood environment and intimate partner violence: A systematic review” by K. Beyer, A. B. Wallis,

and L. K. Hamberger, 2015, *Trauma, Violence, & Abuse*, 16(1), p. 20. Copyright by PubMed Central.

Considering the complex nature of DV, it is important to explore how well the nested ecological model conceptualises DV through a multidimensional approach that considers a range of individual, social and sociocultural factors. Firstly, the individual level (also referred to as the ontogenic level), includes individual differences (e.g., biological, contextual, behavioral) and how these factors influence how an individual will interact with the other levels in shaping their understanding and perceptions of DV and intimate relationships. For example, factors that have been shown to be risk/predictive factors of DV and therefore influence DV proclivity and pro-attitudes of DV, include childhood exposure to DV, high levels of testosterone, disorganised or insecure attachment (e.g., Capaldi, Knoble, Shortt, & Kim, 2012), low levels of serotonin (e.g., Birger et al., 2003); education level, self-esteem and hostility (e.g., Heise, 1998), and will be discussed in more detail in the next chapter. From these examples, it is clear that any one of these factors could feed into how an individual may engage with elements in the second level (also known as the microsystem). For instance, the likelihood that an individual may have poorer interpersonal relationships if they have not had the opportunity to develop emotional/self-regulation skills due to severe childhood abuse (e.g., Stevens, Gerhart, Goldsmith, Heath, Chesney, & Hobfoll, 2013). Also, considering male perpetrators specifically, it has been shown that the absence of a father figure or having an abusive, rejecting father, for example, has been shown to foster abusive, angry and mood cycles in males in adulthood (Heise, 1998).

Likewise, the absence of a secure attachment to a primary caregiver may also impact their interpretations of gender roles and socialisation processes in schools with their peers (Schwartz, Dodge, Pettit, & Bates, 1997). Other cultural or societal norms may more easily influence individuals who are seeking attachment, a sense of belonging or who are looking

for structure. Other individuals may have the drive to maintain the strict cultural, familial or societal norms (e.g., gender roles) that are practiced at home, in school, and this could impact the nature of their relationships with their peers. These attitudes and beliefs could be reinforced and normalised (Leach, 2003), or be viewed as uncommon and lead to damaging externalising or internalising behaviors, that have long-term developmental implications (discussed in the next chapter). However, it is important to consider intersectionality of DV, and how these factors play out differently across individuals from rural areas, different races, ethnicities, classes, and the potential harmful implications this may have. For example, research has shown that males who have control of the finances in the family, have a wife who is unemployed or not on a very high income, and have children younger than 5 years old are at risk of being abusive towards their wives (Heise, 1998). In addition, alcohol has also been found to exacerbate the abuse and violence within a relationship, and some research suggests one behavioral attribution for this is that males feel they are not responsible for their behavior and cannot be held accountable (Heise, 1998). However, it must be noted that this is not the case for all abusive men or men who drink alcohol.

The third level (also referred to as the exosystem), involves the wider social context outside the home (e.g., neighbourhood, occupation, school), and highlights potential avenues for individuals to become at risk of DV. For example, families who have little support available to them such as support groups or religious networks, may find it more difficult to seek help when they are undergoing stress at work, or during a family conflict, and this could lead to social isolation (Heise, 1998), especially within families who live in more rural areas (Lanier, & Maume, 2009). Social support has been found by researchers to be a protective factor for individuals exposed to childhood abuse and DV in adulthood (Muller, Goebel-Fabbri, Diamond, & Dinklage, 2000). The socioeconomic status of a family can be a main predictor as it is not only poverty that may influence how an individual engages with their

social environment, both during childhood and in adulthood, but it is also how poverty influences males and their perceptions of themselves (Heise, 1998). For example, some men who endorse strong traditional gender roles may be impacted more by the stress and frustration of not being able to provide enough for their family, and not fully conforming to the role as the breadwinner/provider of the family. Without acknowledging the intersectionality of DV, it is difficult to fully understand how exactly individuals who either have a low socioeconomic status, belong to an ethnic minority, from a culture/society that endorses traditional gender roles, cope with DV victimisation, especially in the absence of extended family members for support.

The third level also includes other avenues of influence such as the media, which can help to reinforce existing attitudes and beliefs and inform harmful/violent behaviors. For example, there is a substantial amount of research linking violent video games with anti-social and violent behavior (e.g., Gentile, Lynch, Linder, & Walsh, 2004). When you consider the influence of other factors across the all levels in the nested ecological model (e.g., high testosterone, family dysfunction, substance/drug abuse, childhood exposure to DV), it becomes easier to grasp the potential knock on effect one risk factor can have on DV proclivity. There are however protective factors, that reduce this risk (e.g., Carlson, McNutt, Choi, & Rose, 2002; Martinez-Torteya, Anne Bogat, Von Eye, & Levendosky, 2009; Muller et al., 2000).

The outer most level (also known as the macrosystem), includes the role of society, culture, and the policies and practices that may influence DV. It is in this level of the model where the role of societal norms and values and stereotypes have on the belief and attitudes individuals form towards DV, and the extent to which certain cultures and societies permit (even implicitly), violence/abuse within an intimate relationship. Given the focus of the current project is on predictors and immediate antecedents to offending, it is important to

consider how the manner in which an individual engages with society, the pressures, expectations and diversities, help shape their beliefs and attitudes towards DV. For example, one predictor being explored in the current project is the role of DV related implicit theories, which can be evidenced using this model. Specifically, previous research has found male violence towards women to be linked to males' sense of entitlement over women (Heise, 1998), and is facilitated/reinforced by a society that endorses strong traditional gender roles, enforced by specific policies and procedures and/or lack of governing or punishment towards males. This particular implicit theory is called 'relationship entitlement' (Pornari et al., 2013), and will be discussed in more detail in the next chapter.

Another example to highlight the relevance of this theory is through a hypothetical situation. Assuming an individual is at risk of forming pro-DV attitudes and proclivities due to childhood exposure to DV, is being bullied at school for being a recluse and is getting into a lot of fights, plays violent video games a lot to escape his family and does not know how to adequately manage his emotions, he/she may begin to believe certain abusive/violent behaviors are normal between an intimate couple, and these could be further reinforced by what he/she sees in their neighbourhood or local community. While this is just one example of how this model can explain onset of DV, one major limitation is that it (1) does not account for individuals who may have risk factors in the individual level, and live within a culture with strong societal acceptance of intimate partner violence and do not become violent/abusive; (2) does not fully explain how these DV behaviors are learnt, reinforced and maintained; and (3) does not provide a lot of information about the immediate antecedents to the specific forms of DV behavior. For instance, it is not clear what thought processes or motivations directly impact DV offending.

In summary, in this model, all four levels do overlap which indicates the importance of understanding how these interlinked factors and the variables within them could lead to

DV perpetration. For instance, the interaction of developmental factors such as personality, cognitive distortions, insecure attachment, and post traumatic symptoms (e.g., Corvo et al., 2008; Dutton et al., 2006), alongside socio-behavioral factors such as low self-esteem, poor communication skills, substance abuse, and lack of assertiveness (Ali & Naylor, 2013a). However, one key limitation of this model is that it is informed by what is known about the traditional family structure, and does not necessarily encompass all the additional stresses and factors that may contribute to DV that exists in same-sex families, or single parent family structures. The patriarchal family structure fuels the norms and approves male dominance in certain cultural contexts. While the scope of the project does not directly focus on same-sex relationships and single parent households, it is worth noting the importance of the diversity within families, and the impact societal values and norms have on them.

In line with other researchers, it is apparent that this model is not definitive but is useful in steering future research into gender-based abuse/violence (Heise, 1998). One of the main aims of this thesis is to explore DV perpetration from the viewpoint of developmental predictive factors, to consider how an individual's DV proclivity could be influenced throughout their life trajectory. One theoretical explanation that incorporates this developmental aspect well, is the **Intergenerational Transmission of Violence**.

1.3.2. Intergenerational transmission of violence. The Intergenerational Transmission explanation of DV, uses the principles of the social learning theory (Bandura, 1977) to suggest that individuals attain knowledge and understanding about violence and abuse from childhood through behaviors learnt from their violent/abusive parents through imitation or vicarious learning, and display these behaviors in adulthood (e.g., Corvo, Dutton, & Chen, 2008). One prevalent type of DV that has been supported by this model is physical violence (e.g., Sappington, 2000). However, while there are studies that support this explanation (e.g., Jackson, 1996), there are also a number of limitations.

For instance, researchers have suggested that many of the studies that support this explanation are studies that have used distinctive samples such as children from clinical settings, anecdotal reports or children from shelters (e.g., Walker, 1979). Some studies have found significant support for this explanation among females and not males (e.g., Mihalic & Elliot, 1997), and others have observed the opposite, that family violence in childhood leads to males becoming violent in adulthood and not females (e.g., O'Keefe, 1997). Other studies, reported in a meta-analysis conducted by Stith et al. (2000), found that males who had self-reported being victimised during their childhood by their parents, went on to become perpetrators and victims in adulthood, and females with childhood exposure to DV, were more likely to be victimised in adulthood.

It is clear that there is inconsistency across the literature in the support for the intergenerational transmission explanation for DV, and this highlights the importance of taking a more multidimensional approach and considering specific aspects within an individual's development that may make them more or less likely to hold pro-DV attitudes and beliefs, and potentially become a DV offender in adulthood. The current project aims to address some key developmental aspects that will build on what we know about exposure to DV in childhood and DV perpetration. It will also consider how other forms of DV such as psychological and emotional abuse are influenced by developmental factors, as this has not been widely researched in line with the intergenerational transmission perspective. Gender differences will also be considered, as there remains some disparity across the literature in the impact childhood DV has on males and female's proclivity towards DV.

In light of the above discussion of the relevant theoretical perspectives on DV, it is clear that DV is a complex phenomenon, that has multiple predictors, is impacted by childhood experiences, societal norms and beliefs, and how individuals interpret, and navigate their environment through socialisation processes and the reinforcement of

normative behaviors and attitudes. While no set trajectory from childhood to adulthood is generalizable, it is evident that childhood exposure to DV is an important factor to consider when investigating attitudes towards DV and DV proclivity. It is to this end that the current thesis aims to explore novel and evidenced predictive factors and DV proclivity, linked to the social, cognitive and behavioral factors that may start to develop in childhood. Specifically, this thesis aims to assess factors related to childhood exposure to DV, as well as proclivity questions linked to other forms of DV (e.g., controlling behavior and psychological abuse). This will provide more detailed information about: (1) what forms of DV exposure may influence types of DV behavior in adulthood; (2) the socio-cognitive processes that could play a role in the development and reinforcement of DV behavioral tendencies; and (3) identify gender differences that may exist in how males and females process experiences of childhood abuse, including only witnessing others being abused, and how this may impact their adult relationships.

1.4. The Focus on attitudes towards DV Perpetrators. Additional reasons for targeting research towards DV perpetrators in this thesis is to provide information in order to better inform research and early interventions of DV related to the attitudes and beliefs individuals have about DV perpetration. Also, previous findings suggest that attitudes may not differ between individuals who have offended/have an inclination towards DV and those who have not (Eckhardt & Dye, 2000), which highlights the importance of assessing other constructs in addition to attitudes (i.e., proclivity, implicit theories and behavioural tendencies). The key reason for why the current thesis focuses on DV perpetration is primarily to identify individuals who self-report having DV proclivities, being exposed to DV during their childhood, may have developed angry ruminative tendencies and/or hold DV-related implicit theories that may motivate and facilitate any DV beliefs or behaviors, that may be being inhibited or practiced. This is achieved by (1) the identification of specific

evidenced and proposed key predictive factors of DV perpetration (i.e., exposure to childhood DV, angry rumination, DV-related implicit theories, DV proclivity and enjoyment propensity towards DV); and (2) the development of a tool to assess these factors in relation to DV proclivity. This would enable the following: (1) to gain an enhanced understanding of the *exposure to DV during childhood*, which is one of the strongest/most prevalent predictive factors that has been previously identified; (2) to explore and identify *angry rumination* within the context of an intimate relationship as an additional predictive factor; (3) to assess the *proclivity, enjoyment propensity*, and the influence of known DV-related *implicit theories* (i.e., ‘violence/behavior is acceptable’, ‘women/less abusive partner are to blame’, ‘women/less abusive partner are objects’, ‘entitlement’, and ‘need for control’) of DV perpetration, for four key forms of DV (i.e., physical violence, financial abuse or controlling behavior, psychological or emotional abuse and sexual violence or assault).

2. Overview of thesis

Chapter 1 presents a review of the available literature examining childhood exposure to DV, implicit theories related to DV, angry rumination and generalized trait aggression as predictive factors of DV perpetration. Within this thesis, these four inter-related constructs are considered to be the main predictive factors to explore in relation to DV perpetration and the attitudes individuals form towards DV, as they are all thought to develop as early as childhood, and to be reinforced through socialization processes (i.e., peer groups). It is proposed here that examining these factors provides a more in-depth understanding of DV perpetrator proclivity; in particular, angry rumination, which has not been examined within the context of DV, is identified as an important psychological process within DV proclivity. It is concluded that the inclusion of these factors into early interventions and/or psychometric tools/measures aimed at reducing DV would be highly beneficial.

Chapter 2 presents literature on different DV prediction tools; an evaluation of the most cited DV instruments and brief discussion of key risk assessments is conducted; and some limitations of these tools are discussed regarding their ability to assess DV proclivity and attitudes towards DV perpetration. Following this, the importance and necessity of a DV proclivity tool that includes the predictive factors discussed in Chapter 1 is highlighted, alongside the benefits of developing a proclivity scale and discussing how similar tools have been developed and used (i.e., Rape Proclivity Scale).

Chapter 3 re-emphasises some key limitations of current DV tools in assessing DV and discusses current research and practical benefits of the development of a DV proclivity and predictors tool. In particular, this Chapter provides justifications for assessing the exposure to DV, angry rumination and implicit theories as predictive factors, and discusses in more detail how these are inter-related and may influence DV proclivity and perpetration. The first two empirical studies (Studies 1 and 2) conducted during the development of the DV proclivity and predictors tool (DVPPT) are then presented to show how findings demonstrate the statistical internal consistency and reliability of the DVPPT to assess 'relationship angry rumination', 'childhood exposure to DV', and 'DV proclivity and DV-related implicit theories'.

Chapter 4 presents two correlational studies (Studies 3 and 4) which establish the convergent and discriminant validity of the DVPPT. In addition, the gender neutrality of the DVPPT was assessed, as one of the main aims of the current thesis was to develop a tool that could be used with both males and females. Following this, the predictive power of the DVPPT in predicting both generalised trait aggression and DV tactics/behavior was assessed. The results of both studies demonstrate that the DVPPT has good construct validity. The DVPPT is also shown to be a gender neutral tool, and a significant predictor of generalised trait aggression that is able to predict more DV behavior than aggression or gender measures

alone. This highlights both the gender neutrality of the DVPPT and the gendered nature of existing DV tools.

Chapter 5 reports a study (Study 5) that investigates the relationship between traditional gender role beliefs (i.e., ambivalent sexism towards men and women), DV proclivity, DV myth acceptance and attribution of blame in DV situations. The differences between males and females across these four constructs are also assessed, along with the predictors of DV proclivity. The study shows that these four constructs are both statistically and conceptually related to each other, which has not, to the author's knowledge, been examined before this thesis. The results suggest that DV myth acceptance and victim blaming attitudes are significant predictors of DV proclivity. However, participants were prone to desirable responding, and gender did not predict DV proclivity. This shows the gender neutrality of the DV proclivity component of the DVPPT, and suggests that the other gendered measures were phrased in a way that impacted individual's need to respond desirably.

In addition, in assessing the predictors of DV proclivity and implicit theories, hostile sexist attitudes, DV myth acceptance and victim blaming attitudes are identified. Again, the gender neutrality of the DVPPT is supported because there were no gender differences in DV proclivity. For DV proclivity and implicit theories, gender does link to responses, and this may be because individuals engage in deeper cognitive processing of the DV scenarios while answering the questions on implicit theories. Interestingly, in assessing the predictors of DV proclivity and implicit theories, participants were not prone to desirable responding.

Chapter 6 presents the final two studies (Studies 6 and 7) in the thesis, which were conducted following participant feedback on previous studies. In particular, some participants who have literacy difficulties, specifically dyslexia, found some questions difficult to interpret/answer. In light of this, the DVPPT is revised to address this issue and to make it

more accessible to a wider population. Following this, Study 7 is conducted to statistically validate the revised version of the DVPPT, the DVPPT (Dyslexia-R). The results from Study 7 demonstrated the need for a DV tool that is accessible to a wider population of individuals, including those with literacy difficulties, which is important in order to maximise the utility of the DVPPT.

Chapter 7 summarises and evaluates the findings of the current thesis. The development and value of the DVPPT are discussed in relation to informing early interventions of DV perpetration and the predictive power and gender neutrality of the DVPPT are highlighted. Following this, the discussion of some methodological limitations of the current research is presented (e.g., the use of self-report measures). Directions for future research are also suggested (e.g., the inclusion of conducting experimental work investigating various samples) and the development of a revised a short form of the DVPPT and the DVPPT (Dyslexia-R).

Chapter One

Domestic violence offending behavior: A review of the literature examining childhood exposure, implicit theories, trait aggression and angry rumination as predictive factors.

1. Introduction

Domestic violence (DV) is an increasing and complex global public health concern. Research on its prevalence and associated costs to the victims has thrived. Reports by the World Health Organization found the lifetime prevalence of physical and sexual DV to be between 15 and 71% for women across 10 different countries (Garcia-Moreno, Jansen, Ellsberg, Heise, & Watts, 2006). Similarly, other studies have reported a prevalence of DV homicide to reach 13.5% across 66 countries (Stöckl et al., 2013). The majority of instances of DV are cases of revictimization (Kershaw, Nicholas & Walker, 2008); in the UK alone in 2010, 63% of reported cases of DV involved repeat victims (Flatley, Kershaw, Smith, Chaplin, & Moon, 2010). Common consequences of DV for the victims include Post Traumatic Stress Disorder (PTSD), depression, anxiety and physical injuries (e.g., Coker et al., 2000; Taft et al., 2007). These consequences significantly impact the overall psychological well-being of an individual and can be difficult to identify and address without seeking professional help. Although research on DV has historically focused on victims, researchers and practitioners have more recently shifted attention to its perpetrators. Thus, research has begun to explore the consequences of DV for the perpetrators (Walker et al., 2010), the role that implicit theories of DV might play on predicting violence among male and female offenders (Weldon & Gilchrist, 2012), and how clinicians and practitioners could support perpetrators, alongside victims of DV (Larkins et al., 2015).

The increased focus towards DV perpetrators has been predominantly due to high recidivism rates, which strongly suggest that this type of violence is a serious issue that requires large resources to address. For example, the risk of repeat assault from DV

perpetrators who have received no treatment reached a staggering 68% (Dobash, Dobash, Cavanagh & Lewis, 1999); and for individuals who had been engaged in an intervention, recidivism estimates had been approximately 30% (e.g., Babcock, Green & Robie, 2004). This suggests that DV assessments and rehabilitation programs need more research attention in order to reduce reoffending. As a result, researchers need to engage in more comprehensive and in-depth consideration and examination of the factors related to DV.

The current Chapter has three primary goals: 1) to outline the literature on developmental risk factors of DV perpetration; 2) introduce and discuss factors that have, hitherto, received relatively little attention in the literature, namely, implicit theories of DV, trait aggression, and angry rumination; and 3) propose and discuss how these factors may be inter-related to influence DV perpetration. More specifically, it is proposed that angry rumination is an important factor linking developmental risk factors (e.g., early exposure to violence) to other psychological factors involved in DV.

Before discussing the previously-listed factors, however, the difficulties and issues with developing a proper and complete definition of DV needs to be examined. Such a discussion is important because the lack of a consensus on what defines DV has the potential to impede any progress towards a more complete understanding and treatment of this offending behavior. In addition, it is important to note that this review was based on a thematic approach to encompass these four inter-related domains (i.e., childhood exposure to DV, implicit theories of DV, trait aggression, and angry rumination) and used the following search terms, various combinations of them and related concepts: ‘domestic violence’; ‘intimate partner violence’; ‘childhood exposure’; ‘abuse/abuser’; ‘implicit theories’; ‘cognitive distortions’; ‘angry rumination’; ‘generalized trait aggression’; ‘predictors’; ‘risk factors’; ‘developmental’; ‘offender/offending’; ‘perpetrator’ and ‘recidivism’.

2. Defining Domestic Violence

Lack of consensus among researchers and practitioners regarding a universal definition for DV. This has been an ongoing problem that hinders the development of valid etiological theories and effective interventions (Bowen, 2011), and could be due to the variability in interpersonal behavior, individual and situational factors related to DV. For instance, the term ‘domestic violence’ has been used to include all forms of violence and abuse that occur within a familial household (see Langlands, Ward, & Gilchrist, 2009; Klopper, Schweinle, Ractliffe, & Elhai, 2014; Ogbonnaya & Pohle, 2013), but, specific behavior that constitutes DV are not made explicit (e.g., physical violence). Others focus their definition of DV explicitly on physical violence and assault and do not assess the presence of other forms of behaviors linked to DV (Richardson, Coid, Petruckevitch, Chung, Moorey & Feder, 2002).

This introduces some ambiguity in how DV is interpreted and understood, and reduces the consistency and reliability across DV studies. In turn, this inconsistency has led to less reliable findings on public perceptions, attitudes and behavior of DV (Carlson & Worden, 2005; Hegarty et al., 1999). For example, previous studies have found some individuals to report emotionally abusive behavior, such as giving their spouse the silent treatment or telling them to stay at home as “sometimes” spouse abuse (Johnson & Sigler, 1995). Similarly, other researchers have defined DV as behavior performed by a male partner towards their female partner that includes physical assault, acting in a threatening manner and/or being intimidating (Abbott, Johnson, Koziol-McLain & Lowenstein, 1995).

Some researchers have tried to overcome this confusion by using different terms that represent the individuals involved in DV. For example, for physical and/or sexual violence and psychological abuse between past or current intimate partners the term ‘intimate partner violence’ is commonly used (e.g., Carpenter & Stacks, 2009; Ernst et al., 2009; Hester, 2012;

Roehl & Guertin, 2014; Whitfield, Anda, Dube, & Felitti, 2003). Other researchers have stated that 'DV' should be used as an umbrella term to refer to what occurs when one partner is abused by another in an intimate context; this includes both male and female victims and same sex partner violence (Holt, Buckley, & Whelan, 2008). Notably, however, this approach does not mention the occurrence of DV towards children within the home, and thus, limits the impact of research that aims to address DV on a broader, all-inclusive level.

Generally, previous definitions are found to not adequately represent DV. More precisely, (1) they are too specific in their depiction of DV behavior and do not include information about persons involved or the context (e.g., Wilt & Olson, 1996), and/or (2) they present a broad representation of DV that provides no conceptual information about DV predictors or behavior (e.g., Dutton et al., 2006). Therefore, DV perpetration research lacks consensus due to differing definitions used and this, in turn, can pose methodological issues that produce poor empirical data.

In addition, differences in the definition of DV employed across studies and the specific type of behavior and perpetrator that they reflect means that significant numbers of participants and researchers may misinterpret what is meant by abuse, violence, or offender. As a substantial amount of information learnt about DV perpetration is achieved through the use of self-report measures and assessments, it is assumed that, if these tools are varied in their conceptual depiction of DV, then the information gained, although valuable, is limited. There is little certainty that across numerous samples, the participants have interpreted DV in the same way, or indeed, that researchers and clinicians have used the same definitions/terminology or have conceptualized DV in the same way, as a universal definition does not exist. This may be one explanation for the gaps in our knowledge of DV perpetration, which is used to inform DV perpetration treatment programs. As a result, this could have an impact on high DV recidivism rates.

In light of these issues, in order to increase the conceptual clarity of DV, the research in this thesis will use the term *Domestic Violence* (DV) for which the definition will include all documented forms of DV (i.e., emotional/ psychological, physical violence/abuse, sexual assault/abuse, controlling/threatening behavior, and coercion), that occurs predominantly between intimate partners (e.g., boyfriend and girlfriend, married, long-term relationships), and towards children both within and outside the household by a parent/primary caregiver (biological or non-biological). As there is no universal consensus for definitions for DV behaviors, the following definitions/behaviors will be used to illustrate the four forms of DV focused on in this research:

- *Emotional/psychological abuse* towards an intimate partner includes “criticizing, ridiculing, jealous control, purposeful ignoring, threats of abandonment, threats of harm, and damage to personal property” (Sackett & Saunders, 1999, as cited in Reed & Enright, 2006, p. 920). Likewise, other behavior may include: “being insulted or made to feel bad about oneself; being humiliated in front of others; being intimidated or scared on purpose; or being threatened directly, or through a threat to someone the respondent cares about” (Garcia-Moreno, Jansen, Ellsberg, Heise & Watts, 2006, p. 13).
- *Physical violence/abuse* may be depicted by the following behaviors, Assault, hitting, slapping, punching, kicking, hair-pulling, biting, pushing; rough handling; scalding and burning; inappropriate or unlawful use of restraint; involuntary isolation or confinement; misuse of medication (e.g. over-sedation); or unauthorised restraint (Social Care Institute of excellence, 2018).
- *Sexual abuse/assault* is defined as ‘any unwanted sexual act or activity. It includes rape, sexual assault, child sexual abuse, sexual harassment, female

genital mutilation, trafficking, sexual exploitation, and ritual abuse' (Centre for Action on Rape or Abuse, 2016).

- *Controlling/threatening behavior* is illustrated by “one partner (commonly the man) using threats and emotional abuse to maintain control over the other partner (commonly the female)” (Antai, 2011, p. 511). Additionally, this type of behavior can be defined as “the control motives of the violent member(s) of the couple, motives that are identified operationally by patterns of controlling behavior that indicate an attempt to exercise general control over one’s partner” (Johnson, 2006, p. 1003).

Overall, Domestic Violence (DV) in this thesis will refer to ‘*any form of behavior associated with DV perpetration (e.g., physical violence, sexual assault, controlling/threatening act) that occurs both between partners and towards family members within the home by parents (biological or non-biological)*’.

3. Predictors of DV Perpetration

Researchers have identified key risk factors for DV perpetration, which include: family/developmental factors (e.g., attachment styles, poor family relationships, witnessing parental violence, developmental psychopathology); individual/behavioral factors (e.g., generalized trait aggression, positive attitudes towards violence, substance abuse); contextual factors (e.g., poor relationships/networks with peers, low socio-economic status); and cognitive factors (e.g., distorted cognitions about relationships, hostile attitudes and beliefs) (e.g., Capaldi et al., 2012; Costa et al., 2015; Eckhardt & Crane, 2014; Ernst et al., 2007; Howard et al., 2010; Mbilinyi et al., 2012; Murrell et al., 2007; Roehl & Guertin, 2014; Stuart et al., 2013; Trevillion, Oram, Feder, & Howard, 2012; Whitfield et al., 2003). Among these factors, the exposure to DV during childhood has been one of the most prevalent predictors

for DV perpetration (e.g., Capaldi et al., 2012; Carpenter & Stacks, 2009; Mbilinyi et al., 2012; Milaniak & Widom, 2015; Whitfield et al., 2003).

Researchers examining the consequences of DV exposure during childhood have found that these experiences have adverse psychosocial, cognitive (e.g., memory, learning) and behavioral outcomes (Stenberg et al., 1993). In particular, mental health problems (e.g., depression and anxiety), poor emotional regulation, a tendency towards aggression and violence, and having positive attitudes towards violence, are important outcomes (Card, Stucky, Sawalani, & Little, 2008; Malinosky-Rummell & Hansen, 1993; Ward, 2000). Researchers have suggested that these consequences may originate from forming poor attachments to parents/primary caregivers (e.g., Dutton & White, 2012), and acquiring negative behavior and attitudes through social learning processes that have been reinforced by peers who share similar attitudes towards violence (e.g., Dodge, Pettit, Bates, & Valente, 1995). The current research presents additional explanations for why and how some individuals acquire these attitudes, thinking processes and justification for their actions.

In addition, other studies have found that early abusive experiences affect children differently, especially across gender and age (e.g., Costa et al., 2015). For example, children as young as one year (Department of Health, 2013) are vulnerable to lasting effects on their development from experiencing domestic abuse. According to relatively recent statistics, 34-54% of male victims of childhood abuse are likely to become DV perpetrators themselves (Margolin & Gordis, 2004). This suggests that for some individuals, exposure to DV during childhood places them on a developmental path that enhances their proclivity towards engaging in DV in later life.

Further, victims of childhood abuse are more likely to subsequently become re-victimized (Whitfield et al., 2003) or develop a history of engaging in DV offending behavior in adulthood (Murrell et al., 2007). These findings highlight the importance of identifying

predictors of DV perpetration and proclivity that may develop during childhood in order to understand the processes that bring about perpetration and recidivism. However, it is worth noting that the nature of the exposure to DV (i.e., whether individuals experienced or witnessed the abuse) can lead to different life trajectories that impact violent tendencies. However, this thesis focuses primarily on the factors influencing attitudes towards DV perpetration and proclivities.

The key predictors of DV perpetration found to develop specifically during childhood (among individuals exposed to DV) and negatively influence important developmental processes will be reviewed. These are: 1) *developmental and social* processes (e.g., social information processing); 2) *physical and psychological* processes, such as emotional regulation, which is the ability to cope with extreme emotions such as anger and jealousy (Cole, Martin, & Dennis, 2004; Cook et al., 2005); 3) *interpersonal* skills (Davies & Cummings, 1994); and *cognitive* processes, such as executive functioning, spatial working memory (Gould, Clarke, Heim, Harvey, Majer & Nemeroff, 2012) and other cognitive deficits, visual impairments and language difficulties (Carpenter & Stacks, 2009; Huth-Bocks & Hughes, 2007). In the next section, some important outcomes of childhood exposure to DV are discussed.

3.1. Developmental and Social Processes.

3.1.1. *Ineffective social processing.* A developmental outcome linked to individuals who have been exposed to DV during childhood is ineffective social processing; i.e., impaired social cognition and problem solving (Azar et al., 2016). Poor social processing has been observed to negatively affect levels of social competency, academic performance and social interactions in victims of childhood abuse (Wolfe, Crooks, Lee, McIntyre-smith, & Jaffe, 2003). In the absence of care and adequate nurturing from a primary caregiver, as is common in DV households, a child does not have the opportunity to learn how to suitably

engage in social interactions in which emotional regulation plays a key role. Investigations into the effects of childhood DV have found that, through poor social processing, individuals experience more internalizing behavioral problems (e.g., anxiety), and are more at risk of being re-victimized in adulthood (Carpenter & Stacks, 2009; Moylan et al., 2010). The extent to which revictimization occurs is also partly dependent on other factors, such as gender, family and individual characteristics.

According to McFall's (1982) social informational processing model, in order for an individual to become socially competent within their environment they must learn how to skillfully navigate each of three stages of processing social information (i.e., decoding, decision-making and enactment). Researchers have found that exposure to childhood abuse impairs the ability to carefully process their environment, as individuals become hyper-vigilant to possible threats. As a result, they are often prone to acting aggressively (Dodge, Pettit, Bates, & Valente, 1995).

Other researchers have examined two main types of social information processing, hostile attribution biases and negative emotional responses that influence aggression in adulthood (Chen, Coccaro, Lee & Jacobson, 2012). They found that individuals who had experienced more severe childhood maltreatment and emotional abuse/neglect were aggressive in adulthood when they experienced negative emotional reactions, in comparison to those who experienced little/no abuse. Instead, individuals who experienced childhood maltreatment and reported being aggressive in adulthood were found to show more hostile attribution biases towards other individual's perceived/anticipated behavior towards them. This is problematic as it could lead to patterns of learned behavior in individuals who may develop aggressive tendencies following social interactions that have ended well for the aggressor, therefore acting as positive reinforcement for future instances.

3.1.2. *Development of traditional gender role beliefs.* Other research has considered the role of childhood exposure to marital violence and gender role beliefs on forming attitudes that condoned DV perpetration (Lichter & McCloskey, 2004). They found that, on the whole, the way in which an individual thought about gender roles played an important part in the development of attitudes towards DV, regardless of whether they had been exposed to DV during childhood. This suggests that the ways in which children process events that occur within the home between their parents plays an important role in shaping their attitudes and proclivities towards DV in adulthood. The findings from this Study supported the intergenerational theory explanation of DV perpetration and proclivities, as discussed in the previous section.

Similarly, considering social cognitive theory in explaining DV (see the previous section), researchers have also found that some individuals develop cognitive scripts for traditional gender role beliefs that they use to make sense of relationship dynamics, in particular, supporting the role of male dominance (Bem, 1993). Subsequently, other researchers have noted that gender role beliefs can form during childhood through socialisation processes such as: learning gender roles based on the beliefs and attitudes of their parents; the media; how the dyad interacts as a couple; peer-relations and class room settings (Birns, Cascardi, & Meyer, 1994).

Additionally, violence among dating couples (i.e., college students), has been found to be an increasing problem. Previous studies have found physical violence among college students to range between 20% (e.g., Shook et al., 2000) and 50% (e.g., Straus & Ramirez, 2007). In particular, there have been associations found between physical aggression, strong gender beliefs, attitudes which support violence, and DV (e.g., Berkel, Vandiver, & Bahner, 2004; Graham-Kevan & Archer, 2003). In view that the research in this thesis aims to explore DV behavior and predictors related to aggression and offense-supportive beliefs, the

consideration of gender roles as an additional underlying factor that precedes DV, and which could therefore contribute to DV proclivity and perpetration, is important.

Therefore, an exploration of gender roles and DV may provide more information about why males and females engage in different forms of DV (Hester, 2013); to gain a wider understanding of how each gender may justify their offending; and, to determine whether gender roles are an additional predictor of DV proclivity.

3.2. Psychological Processes.

3.2.1 *Self-regulation and emotional self-regulation.* The examination of how the trauma and stress arising from exposure to DV is vital in understanding the impact DV has on an individual's development and adjustment in adulthood. Another crucial developmental factor linked to DV offending is the inability to emotionally regulate (Beech, Ward, & Fisher, 2006; Carpenter & Stacks, 2009). This factor is important because it plays an essential role in facilitating problem solving, attentional focus, and developing and maintaining social relationships (Cole, Martin & Dennis, 2004). For instance, it has been shown that some individuals are abusive towards their partners as a way of expressing negative emotions (e.g., anger), which they have not learnt to appropriately regulate (for a review, see Langhinrichsen-Rohling, McCullars, & Misra, 2012).

One explanation of the relationship between exposure to DV and future DV perpetration is that these abusive experiences augment the levels of trauma and stress infants undergo (Koenen, Moffitt, Caspi, Taylor, & Purcell, 2003; Pepler et al., 2000), which is sometimes exacerbated by the fact that they may not have been taught how to self-regulate by their primary caregivers due to neglect (McIntosh, 2002). For some DV victims (usually the mother) who have developed a mental health condition (e.g., depression), the level of proper attention and care they are able to provide to the infant is significantly reduced. In other words, mental health conditions can leave primary caregivers emotionally unequipped to

provide the necessary support that infants need to learn how to self-regulate. As a result, infants are likely to grow up with poor emotional regulation and other behavioral and developmental impairments that reduce normal functioning later in life. In particular, impairments in an individual's ability to regulate their own emotions influence how a person interacts with others (e.g., Carpenter & Stacks, 2009), particularly during negative or ambiguous situations.

Past researchers have shown that from a young age, poor emotional-regulation has a negative impact on how an individual interprets social interactions among their peers (Moynan et al., 2010), which can influence their future behavior. For instance, due to limited emotional regulation, some individuals may be more prone to engaging in externalizing and/or internalizing behavior that have been associated with DV perpetration. For example, links have been found between individuals who have poor emotional regulation and attention deficits, due to childhood DV (i.e., either witnessed/experienced abuse), and a higher likelihood of developing aggressive tendencies in later life (Carpenter & Stacks, 2009). The next section will discuss the internalizing and externalizing behavior in more depth.

3.2.2. *Externalizing and Internalizing processes.* Victims of abuse during childhood are more likely to display higher levels of externalizing and internalizing behavior than those who have not (Holt et al., 2008). It has been suggested that those who experience child abuse, display externalizing behavior (e.g., delinquency and violence perpetration) and internalizing behavior (e.g., withdrawal) as a way of processing/coping with the abuse (Stenberg et al., 1993; Wolfe et al., 2003). Some researchers have attributed the externalization/internalization of maladaptive processes and attitudes to whether an individual would be more likely to become a DV perpetrator or become revictimized in adulthood, if exposed to DV during childhood (Baldry, 2003; Holt et al., 2008). Therefore, it may be that how individuals interpret their abusive experiences could be an indication of

whether they are more likely to internalize or externalize these experiences. For instance, some researchers have noted girls to engage in more internalizing behavior to reflect on the abusive experiences and process feelings of self-blame. In contrast, boys tend to display more externalizing behavior as a way of processing feelings of being threatened as a result of the abuse (Holt et al., 2008). This may explain the higher prevalence of male perpetrators of DV and intimate partner aggression among individuals with a history of childhood abuse, compared to females (Office of National Statistics, 2015).

Subsequently, given that membership of, and identification with, social groups is an essential aspect of the transition from childhood to adulthood, it is important to consider how these externalizing and internalizing behaviors impact an individual's primary social interactions (e.g., peer group relations). For instance, Holt and colleagues (2008) found that, in addition to poor emotional regulation during social interactions, individuals who have been domestically abused during childhood have a higher tendency to engage in internalizing behavior, which makes some more vulnerable to bullying from their peer groups. While this research suggests there are links to childhood victims of DV being more vulnerable to revictimization from their peers, it also explains why some childhood victims are more likely to be victims of DV later in life.

Other researchers have looked at children who are victims of DV and display more maladaptive externalizing behavior and have found that they tend to engage in peer bullying (Corvo & Delara, 2010), which is a predictor of DV perpetration (Baldry, 2003). Among these individuals, those who are also part of a deviant peer group are more likely to engage in DV perpetration (e.g., injuring their partner) in adulthood (Ehrensaft et al., 2003). Researchers have attributed this association between childhood victimization, externalizing behavior and adult DV perpetration to how an individual reacts to the aggressive cues from their peer group. Specifically, individuals who get angry and engage with aggressive cues,

tend to become bullies following positive feedback from others; alternatively, those who dismiss and do not react to cues are at risk of being bullied themselves (Bowes et al., 2009; Cunningham & Baker, 2004).

As childhood is a crucial period of an individual's development, the feedback individuals receive from their peers and a variety of social interactions play a vital role in how they choose to act in similar situations in future. In particular, during instances where an individual has acted aggressively towards another person, and the behavior is interpreted as favorable by their peers, one can expect the aggressive act to be positively reinforced. As a result, aggression may be perceived as normal behavior, which increases the risk that aggression or violence will be a more habitual, common response, to future negative interactions. Another form of reinforcement is through the formation of aggressive cognitive scripts, which occurs following instances when individuals act aggressively out of anger or as an expression of negative emotions and interpret this behavior as context-appropriate (Birkley & Eckhardt, 2015). For example, an aggressive script can also be formed from exposure to violent stimuli (i.e., media), whereby the violent action/response that an individual is exposed to may become routed in their cognitive processing of similar events of what is an appropriate way of acting/reacting in a similar environment (Ferguson et al., 2008).

Other researchers have pointed out that children can be exposed to more than one form of DV at a time (Boudouris, Straus, Gelles, & Steinmetz, 1982), which is likely to exacerbate the negative outcomes of victimization. It has been suggested that children who do experience more than one form of abuse, whether they are directly victimized or witness another family member being abused, are the most at risk of engaging in internalizing and externalizing behavior (Stenberg et al., 1993). It is individuals who match these criteria that are at higher risk of facing a variety of severe social, behavioral and cognitive problems in

the future. Seemingly, the type of attachment formed between a child and their mother/primary caregiver, has been also shown to influence whether they are more likely to process past events through internalization or externalization.

3.2.3. *Disorganized attachment style.* Given that attachment styles are not the main focus of this review, we only discuss the form of attachment that has been specifically linked to DV. Attachment is an important developmental process that influences the way individuals interact socially, learn how to self-regulate and adapt to different environments, from childhood to adulthood. Attachment type is also one of the main influences of an individual's life trajectory following DV experiences (Levendosky, Huth-Bocks, Shapiro & Semel, 2003). The type of attachment previously associated with DV (either witnessing or experiencing abuse) is termed, 'disorganized' attachment, also referred to as 'disorientated' or 'Type D' attachment. Infants who have formed this attachment style tend to show fear-related behavior towards their caregiver; they tend to freeze or stay still around their caregiver, are likely to seek out attachment from others in the presence of their caregiver, and show contradictory behavior, such as seeking comfort, followed by avoiding their caregiver (Breidenstine, Bailey, Zeanah, & Larrieu, 2011). This form of attachment has been shown to develop between an infant and their primary caregiver as a result of a chaotic environment, usually involving fear, unresolved trauma or rejection (Alexander, 1992). Other research has noted that a disorganized attachment style is associated with an infant being more at risk of developing PTSD and other anxiety disorders in later childhood, as well as future psychopathy (Breidenstine et al., 2011). These findings are supported by associations between DV and mental health conditions (e.g., Coker et al., 2002).

Research into predictive factors of DV in adulthood suggest that children who were classified as having had a 'disorganized' attachment style are most likely to be affected by long lasting outcomes of childhood DV when compared to those who had formed secure

attachments. It is among this group of individuals, for example, that the most common types of externalizing behavior displayed towards their peers at school, included forms of aggression and violence (Dozier, Stovall, Albus, & Bates, 2001; Weldon & Gilchrist, 2012). The type of feedback these individuals received from their peers would predict the extent to which aggressive and violent behavior is reinforced or discouraged. Similarly, this feedback could contribute to the formation of aggressive scripts or schemata related to undesirable behavior (i.e., DV). A more in-depth discussion of aggression in relation to DV perpetration will be presented later in this review.

Another important factor in DV perpetration involves the role of implicit theories, which have relatively recently received research attention in this area. The next section discusses how exposure to early abuse may influence the development of implicit theories, which in turn, can trigger, facilitate, and maintain future DV.

3.2.4. Implicit Theories (ITs).

3.2.4.1. Definitions of implicit theories in relation to offending behavior.

The most widely used definition of Implicit Theories (ITs) incorporates the mental schemas or cognitive scripts that individuals construct about the world, which they use to predict, rationalize and explain interpersonal interactions (Ward & Keenan, 1999). From cognitive developmental research, offender-related ITs have generally been defined as cognitive distortions, interlocking ideas and concepts individuals use to navigate their social environment (Pornari, Dixon, & Humphreys, 2013; Ward, 2000; Ward & Keenan, 1999). The process by which ITs develop has previously been suggested to parallel how children acquire their ‘theory of mind’ (Gopnik & Wellman, 1992).

Others have referred to ITs as maladaptive beliefs and attitudes (Dempsey & Day, 2011), and in the context of offenders, as offense-supportive cognitions (Ó Ciardha & Gannon, 2012). Offenders who hold specific ITs, which have been suggested to relate to

their offending behavior, use these distorted schemas to rationalize their offending behavior. ITs may also be directly involved in producing negative behavior.

Within this thesis it is proposed that the formation of ITs could explain the distorted beliefs that some individuals have towards their partners. Previously, researchers have suggested that ITs could be used to explain offending behavior (Polaschek & Ward, 2002), as offenders have through their life course formed these schemata/cognitive associations to explain and make sense of their own and others' actions (Ward & Keenan, 1999). It has also been posited that individuals may use ITs to save on cognitive resources, which would mean that in instances that may be anxiety-inducing or demand more cognitive/information processes, an individual would be more likely to use an IT to interpret specific behavior or solve problems (Ó Ciardha & Gannon, 2012). It can be theorised therefore that individuals could form these distorted thoughts during childhood, as a result of experiencing DV and constructing explanations for the abuse they are directly experiencing or are witnessing. Thus, in the following section, the main ITs thought to be involved in violent and sexual offences are reviewed, in addition to DV-related ITs, as these two offending populations share similarities with DV perpetrators.

3.2.4.2. *Implicit Theories of DV perpetrators*

The majority of research investigating ITs held by offenders has focused on individuals who have committed sexual and violent crimes (e.g., child molesters). Only over the last decade have researchers' focus shifted to other offender groups, such as firesetters (see Gannon & Barrowcliffe, 2012) and DV perpetrators (see Gilchrist, 2009). Past research with DV offenders has primarily involved male offenders who have served a sentence, and to date, these findings are mainly reliant on self-reports. This section reviews previous research into how specific ITs have been associated with DV offending.

Ward (2000) initially proposed that ITs could develop from childhood by suggesting that it is during the crucial developmental stages that children begin to form cognitive scripts to explain and predict behavior between the self and others. It is through this that they are able to understand the world around them, and thus, successfully conform to behavioral norms. Expanding on this explanation, researchers who have applied Ward's principle to adult offenders have found that many tend to view their victims in a self-serving and distorted manner (Ward & Keenan, 1999). They are more likely to use set ITs to rationalize their offending behavior, as these distorted cognitions and beliefs about their interactions with the victim appear to make sense to them. They are able to achieve this through interpreting the victim's reaction to the abuse, based on the specific belief systems they have in relation to a particular social interaction.

Applying this explanation to DV perpetration, this thesis proposes the possibility that children exposed to DV vary in how they process the abuse, and in some instances, try to justify the abusive behavior and blame themselves for provoking the abuser. In instances when children have witnessed their mother being abused, they may form a distorted view of females (e.g., as weak, deserving of this treatment) or abusing others is the way to control them. As a result, they may build a relationship based on what they have learnt from observing an abusive relationship (Margolin & Gordis, 2004).

Research also shows that some individuals who are exposed to DV during their childhood are also likely to form an insecure attachment with their primary caregiver (Ward, Hudson & Marshall, 1996), which may negatively influence their interpretation of any inter-parental conflict they witness. Another finding supporting the influence of these interpretative biases came from a comparative Study between offenders and non-offenders and their childhood histories. The researchers found that offenders acquired 'theory of mind' later than non-offenders (e.g., Gilchrist, 2009; Polaschek & Ward, 2002; Ward, 2000;). As a

result, this could lead to individuals having also been exposed to a degree of social exclusion and interpersonal stress (Ward, 2000) during their early life experiences, due to poor social skills, linked with impaired theory of mind. Thus, being socially excluded could make a child more likely to develop/display externalizing and/or internalizing behavior (e.g., aggression, withdrawal), which would have an impact on their overall adjustment and transition into adulthood.

Furthermore, other studies have shown that distorted thoughts, if reinforced over time and across similar situations (i.e., relationships), can lead to the development of ITs related to DV (Polaschek, Calvert, & Gannon, 2009; Polaschek & Ward, 2002). Similarly, even during instances where there is no interpersonal physical violence, but unresolved conflict, ITs linked to overly hostile attributions and aggressive behavior towards others outside the household, are likely to develop (McDonald et al., 2007).

Most ITs are usually conceptualised/verbally presented as a single statement and generally contain abstract assumptions about the victim and their capabilities, and to some extent dictate how the victim's behavior will be interpreted. One example is '*women as objects*', which is related to the objectification of women using female characteristics based on gender role beliefs (Gilchrist, 2009). It has been suggested that these ITs are commonly presented as though they only exist to support offending behavior and that in changing them, the offender will not reoffend (Drake, Ward, Nathan, & Lee, 2001). If this logic is supported in practice, then it can be assumed that by identifying ITs related to DV perpetration, and understanding how these ITs develop, more efforts could be targeted towards developing interventions that help cognitively restructure these distorted belief systems. Thus, it is proposed here that the presence of ITs related to DV are an additional predictive factor of DV perpetration and proclivity.

Although, the literature is not expansive in this domain, the ITs which have been initially linked to DV perpetration, identified by Gilchrist (2009) include the following:

- ‘*violence is acceptable/normal*’ (i.e., one interpretation of this IT is that: “violence within an intimate relationship as being an acceptable or at least understandable response, given certain situations”, p. 139);
- ‘*women are to blame/at fault*’ (i.e., the belief that the violent/abusive behavior of the man is because of something the woman has done to cause this);
- ‘*need for control/man in control*’ (i.e., the belief that a man is required to take charge of this home, and all that those who reside in it do);
- ‘*women are objects/women are owned*’ (i.e., a woman’s role is to serve and satisfy a male; they are somewhat dependent on a male, therefore need to be controlled);
- ‘*entitlement/respect*’ (i.e., a man must be treated with respect and if they are not, this is a reason for them to harm the woman that does not do this);
- ‘*uncontrollable sexuality*’ (i.e., there is an uncontrollable force that results in a male needing sex; likewise, females may be seen to not be able to control their urges and therefore a male would need to help control these);
- ‘*real man*’ (i.e., this is linked to traditional views of appropriate masculinity, for instance, if they do not control their partner they will be perceived by others as less of a man);
- ‘*nature of harm*’ (i.e., this is when harm has been normalised and violence is not considered as being harmful).

Subsequently, in similar research that involved responses given to semi-structured questions by male DV offenders, three additional key ITs were reported

'abandonment/rejection', *'need for control'* and *'male sex drive is uncontrollable/policing partner'* (Dempsey & Day, 2011; Weldon & Gilchrist, 2012).

In addition, Pornari and colleagues (2013) identified additional ITs held by both male and female heterosexual IPV offenders. Among the males, there was good support from the findings, for the following ITs: *'opposite sex is dangerous'*, *'normalization of relationship violence'*, *'normalization of violence'*, and *'it's not my fault'*. There was moderate support for the ITs: *'relationship entitlement'*, *'general entitlement'* and *'I am the man'*. Comparatively, among females the hypothesized IT *'relationship entitlement'* was the most prevalent within the sample, and moderate support for the *'opposite sex is dangerous'* IT (Pornari et al., 2013). These researchers conceptualize ITs as core beliefs people develop of the world based on previous life experiences and suggest that some of these ITs have developed as early as childhood, when the individuals witnessed or were victims of DV. It is during the exposure of DV that they form beliefs about gender roles, violence and social interactions between intimate partners. It can therefore be hypothesized that individuals who are exposed to one or more form of DV, and who have been part of a deviant peer group during childhood, are more likely to develop distorted ways of viewing intimate relationships/partners.

Although the literature on the link between ITs and violence, particularly DV, is limited, it is evident that the findings are valuable in suggesting important paths for future research. From this short review, it is evident that more research needs to be conducted into investigating how cognitive distortions are formed among DV offenders. In addition, the ITs discussed above are focused on heterosexual male and female DV offenders, and to the author's current knowledge, have not been explored across wider samples. Thus, much more work is required in this area also.

In addition to DV-related implicit theories, another potentially important contributing factor for individuals developing proclivities towards DV is rumination, particularly angry

rumination, which is a strong predictor of aggressive behavior (see Denson, 2013). In the next section, the role of rumination in facilitating aggression, and how it may be involved in linking early exposure to abuse and DV to future perpetration of domestic abuse is discussed.

3.2.5. *Rumination.* Rumination is a multidimensional construct which has attracted interest from researchers and clinicians over the past two decades (De Lissnyder et al., 2012; Smith & Alloy, 2009). It has been defined as “a class of conscious thoughts that revolve around a common instrumental theme and that recur in the absence of immediate environmental demands requiring the thoughts” (Martin & Tesser, 1996, p.7). In other words, rumination refers to having unwanted intrusive repetitive thoughts revolving on a common theme (Sukhodolsky, Golub, & Cromwell, 2001; Whitmer & Banich, 2007). Some have termed rumination as a ‘maladaptive, trait-based coping strategy’ (Borders, & Giancola, 2011, p. 546) or as an ‘emotion-regulation strategy’ (De Lissnyder et al., 2012, p.519).

Following this, it is possible that some individuals who experience DV during their childhood develop ruminative tendencies as a way of processing the abuse and regulating their emotions as a coping mechanism. There are different types of rumination shown to influence an individual’s responses towards others. These include depressive rumination (Baer & Sauer, 2011), angry rumination (see Denson, 2013; Lyubomirsky & Nolen-Hoeksema, 1995), and hostile rumination (Borders et al., 2010). Depressive rumination, on the other hand, will not be considered in this Study as it has been primarily related to prolonged thinking about sad events/symptoms of depression, and has also been shown to maintain negative mood, and be a predictor for future depressive behaviors (Baer & Sauer, 2011), as opposed to feeling of anger and aggression as is the case with angry rumination, especially when considering a DV context.

While both hostile and angry rumination have been found to prolong anger and aggressive priming, leading to an individual being angry and having hostile thoughts

(Borders et al., 2010), this thesis will focus on angry rumination and its relation to DV perpetration, as this form of rumination has been previously linked to forms of interpersonal aggression that could be applied to a DV context. Angry rumination refers to prolonged, pervasive thinking about anger-inducing events or situations (see Bushman, Bonacci, Pedersen, Vasquez & Miller, 2005). It has also been defined as “self-focused attention towards one’s thoughts and feelings,” (p.177) in this case, in the context of anger (Lyubomirsky & Nolen-Hoeksema, 1995). Both types of anger-related ruminative thinking have been linked to aggression (Barber, Maltby & Macaskill, 2005; Bushman, 2002; Bushman et al., 2005; Denson, Pedersen, & Miller, 2006; Pedersen et al., 2011; Vasquez, Osman, & Wood, 2012; Vasquez et al., 2013) and punishment for violent crime (Vasquez, Bartsch, Pedersen, & Miller, 2007).

Angry rumination augments aggressive behavior because it increases and maintains anger following a provoking event (Bushman et al., 2005; Rusting & Nolen-Hoeksema, 1998). More specifically, following an instigation, anger dissipates after 10-15 minutes (Fridhandler & Averill, 1982; Tyson, 1998), but ruminating about the event prolongs the experience of anger and aggressive priming, which involves activation of aggression-related affect, cognitions, and arousal (i.e., the psychological readiness to aggress; Bushman et al., 2005; Pedersen et al., 2011). In addition, engaging in rumination can decrease self-control because individuals may attempt to stop ruminating but use up cognitive resources (Denson, Pedersen, Friese, Hahm, & Roberts, 2011). As a result, they are momentarily left with few mental resources to inhibit impulsive behavior, including aggression, and are more likely to aggress towards strangers and domestic partners (Denson, DeWall, & Finkel, 2012).

In the context of DV during adolescence and adulthood, angry rumination has been found to predict aggression towards romantic partners (Denson et al., 2011; Denson, Pedersen & Miller, 2006; Pedersen et al., 2011; Vasquez et al., 2012). That is, individuals

who have a tendency to engage in angry rumination (i.e., are high trait ruminators) are more likely to aggress against partners. The reason for the link between rumination and inter-partner aggression is likely due to the priming effects of rumination (i.e., increasing/maintaining anger and aggression-related cognitions and arousal), as well as the decrease in self-regulation that results from ruminating. This may be particularly true in the context of displaced aggression, wherein a provoked individual who does not retaliate against the original source of the provocation, but instead, retaliates against an innocent other (see Dollard, Miller, Doob, Mowrer & Sears, 1939), or someone who does not deserve the level of punishment they receive (see Pedersen, Gonzales, & Miller, 2000; Vasquez, Denson, Pedersen, Stenstrom, & Miller, 2005).

For instance, an office worker may be reprimanded by their boss in a humiliating way, which angers the worker. Normally, the angered worker might calm down (i.e., their anger dissipates) after a few minutes (Fridhandler & Averill, 1982; Tyson, 1998). However, they may also ruminate about the incident for longer, and remain angry and motivated to aggress (i.e., is aggressively primed). When they arrive home, the spouse accidentally spills some juice on a newspaper, which the worker wanted to read. Although there is little damage to the paper, and the worker would not normally be upset by the incident, the previous provocation from the boss, and the rumination about the event has prolonged the worker's anger, and she/he reacts much more negatively to the relatively minor event. As a result, the worker shouts at the spouse and gives them a shove. In short, angry rumination has been shown to predict aggression towards strangers and romantic partners (e.g., Pedersen et al., 2011) and is likely a factor in more extreme levels of aggression and violence.

The previous example illustrates the process through which rumination can lead to displacing aggression towards a romantic partner. Angry rumination, however, is also likely to facilitate direct aggression, wherein a provoked individual aggresses against the original

source of the instigation (Archer & Webb, 2006). For instance, a person might annoy or offend their partner by saying something to their partner's boss/friends about something silly they did, and their partner not only becomes angry but also has a tendency to ruminate about such events. Instead of forgetting about the provoking incident, the partner ruminates about it, which primes them for aggression over a prolonged period of time. For example, if the next evening, the dinner is not ready on time and the partner has forgotten to buy a specific item on the grocery list.

Subsequently, when the angered partner perceives an opportune moment, or perhaps when they feel offended once again, their state of high aggressive priming leads them to lash out against the instigator. To this end, the current thesis aims to also consider the role of angry rumination in predicting inter-partner aggression, when the source of the anger-inducing event is the partner and not a third party. It is proposed that individuals' who engage in generalised angry rumination, also engage in angry rumination following an anger inducing incident that involved their partner, therefore increasing the level of subsequent aggression that could follow. This will be referred to in this thesis as relationship angry rumination.

Angry rumination may also play a more indirect role in DV by mediating the link between exposure to childhood abuse and engaging in future DV. It is proposed that following these trauma-inducing experiences, an individual would need to cognitively process the abuse and try to make sense of the perpetrator's actions and somewhat justify them in a way that would minimise/reduce the onset of PTSD, depression or anxiety (common consequences for DV). Here, an individual could either develop ITs as a coping mechanism for the ongoing abuse, as a way of processing and explaining the perpetrators actions, or alternatively, an individual could develop angry ruminative tendencies involving the unfairness, suffering, and anger that result from the abuse.

As previously stated, children exposed to DV (as a witness or a target of abuse) may be less likely to develop a secure attachment and more likely to develop insecure attachments. Individuals who have formed secure attachments are more likely to be forgiving following an incident that has made them angry, compared to someone who has formed an insecure attachment type (Burnette, Taylor, Worthington, & Forsyth, 2007). One explanation is that individuals who develop insecure attachments are also more likely to engage in angry rumination, making their ability to forgive others more difficult (Burnette et al., 2007), and thus, in adulthood would be less forgiving of their partners following a provocative or anger-inducing incident.

Another route through which rumination may link exposure to DV and future abuse involves the development and reinforcement of implicit theories. As previously proposed, children may develop ITs over time as they develop mental scripts and schemas about their world and other people (Ward, 2000). Among some who experience DV and abuse, the schemas they develop may be more negative and involve hostile/aggressive cognitions and associations. If they have developed a tendency to ruminate, the repetitive thinking about aggression and anger-related ideas, attributions (e.g., parents must hate the child because they often hit him), and affect may reinforce negative and hostile beliefs about others. Over time, these beliefs, due in part to angry rumination, become stronger and elaborate this leads to stronger ITs. These stronger, more elaborate theories subsequently facilitate aggression towards partners.

More generally, research has been conducted into gender differences among those who are more likely to engage in rumination when compared to individuals who are prone to distraction and do not ruminate (Bushman et al., 2005). Researchers have noted that generally, women tend to opt into being distracted following an anger inducing incident whereas men were more likely to engage in rumination (Simpson & Papageorgiou, 2004).

This may explain the historically high prevalence of male perpetrators of DV, and the link between developmental risk factors (e.g., poor emotional regulation) and subsequent DV.

Consequently, angry rumination is likely to be a significant predictor of domestic violence and abuse for a number of reasons. It is linked to aggression through different routes (e.g., aggressive priming, reduced self-regulation), but also through its role in the development of negative beliefs, schemas, and implicit theories. The role that rumination plays in domestic abuse, however, is severely underdeveloped, and researchers should focus more attention to understanding how this factor influences the development and maintenance of the processes that cause and facilitate domestic abuse.

3.2.6. Aggression. Human aggression is generally defined as any behavior directed at another individual with the intent to cause harm (Anderson & Bushman, 2002). For an act to be termed as aggressive, the perpetrator must believe that their actions will harm the other person and that the target wants to avoid them (Bushman & Anderson, 2001). There is a vast amount of literature that has shown exposure to DV during childhood to be a significant predictor of aggression in adulthood (e.g., Allen, 2011; Cyr, McDuff & Wright, 2006; Miller-Perrin, Perrin, & Kocur, 2009; O'Keefe, 1998; Simonelli, Mullis, Elliott & Pierce, 2002; Whitfield et al., 2003). For example, psychological abuse in childhood has been shown to predict overt forms of aggressive behavior in adulthood (Else, Wonderlich, Beatty, Christie, & Staton, 1993; Smith, Rose & Schwartz-Mette, 2010); and parental rejection can lead to more physical and psychological forms of aggression towards intimate partners (DiLillo et al., 2009; Taft et al., 2008). This is further supported by other research that has found hostile attributions, and the positive evaluation of aggressive responses during interactions to be predictors of DV (Capaldi et al., 2012).

Further investigation into childhood DV and aggression has found associations between direct forms of aggression and externalising behavior; and indirect aggression and

internalizing behavior among individuals who have been exposed to DV during childhood (Card et al., 2008). This is further supported by research which identified aggressive traits among many DV offenders that could have developed during childhood (Carpenter & Stacks, 2009; Kitzmann et al., 2003; Malinosky-Rummell & Hansen, 1993). For instance, studies that have explored gender differences in aggression within heterosexual relationships argue that general aggressive personality traits are a component of DV (Archer, 2000, 2004). Likewise, other researchers have found that males who viewed violence towards their partners as acceptable, and reported being dependent on their partners, were found to have higher levels of general aggression (Kane, Staiger, & Ricciardelli, 2000), then those who did not. As stated earlier, it is likely that these attitudes may have been formed during childhood and are reinforced by their peer groups who endorsed and therefore encouraged these negative attitudes as being acceptable (Ehrensaft et al., 2003).

Considering the strong evidence between childhood exposure to DV, and the association this has with the development of aggressive tendencies in adulthood, the next section aims to review key types of aggression related to DV (i.e., instrumental and impulsive), in particular, Generalized Trait Aggression (GTA) as another main predictive factor of DV perpetration.

3.1.7. Types of Aggression and their link to DV perpetration.

3.1.7.1. Instrumental aggression. Instrumental aggression has been referred to as proactive or predatory aggression (Glenn & Raine, 2009), and commonly involves harming another, purposefully, with the intent of achieving a desired goal, or simply obtaining a desired outcome or object (Anderson & Bushman, 2002). There is evidence that suggests the act of following one's own interests as a result of personal desires tends to be premeditated, and usually does not have strong emotional repercussions for the individual (Caprara, Paciello, Gerbino, & Cugini, 2007). Considering this, it could be assumed that

individuals who have ruminative tendencies could display instrumental aggression towards their partners following an anger-inducing incident that may or may not have involved their partner. The premeditated aggression towards their partner could also be a way of controlling their partner, and it may compensate for an incident whereby they felt vulnerable, powerless and/or not in control.

3.1.7.2. *Impulsive aggression.* Impulsive aggression is suggested to be anger-driven, and a result of poor self-control following an anger-provoking incident, whereby an individual has aggressive urges (Denson, Capper, Oaten, Friese & Schofield, 2011; Denson et al., 2011). Researchers have further explored the influence angry rumination has on impulsive aggression for individuals who have poor self-control. Findings suggest that the processes involved in producing impulsive aggression have implications for DV. This is because individuals who may have aggressive tendencies and are generally impulsive may be more prone to act aggressively towards another person, including romantic partners, following a provocation. Within the context of a relationship, situations that produce or facilitate impulsive aggression increase the risk of violence to potential victims because even seemingly innocent statements or incidents could trigger impulsive outbursts of verbal and physical aggression.

3.1.7.3. *Triggered displaced aggression (TDA).* Another type of aggression with implications for DV perpetration is triggered displaced aggression (TDA; Miller, Pedersen, Earleywine, & Pollock, 2003; Pedersen et al., 2000), evidenced to be a well-established psychological process in aggression research (Miller et al., 2003). TDA is the aggression towards a person who is not the source of the initial provocation. It is usually due to something this individual does, whether trivial or ambiguous, that acts as a trigger for the aggressor to displace their original aggression felt towards something/someone different, onto this person (Denson et al., 2006; Vasquez et al., 2005). For instance, some people can

displace aggression towards intimate partners following a trigger. Some acts of partner aggression may be attributed to displaced or triggered displaced aggression, as it explains why an individual may be aggressive towards their partner without sufficient justification or provocation, as a function of earlier instigations that prime the aggressor for subsequent aggressive behavior (Denson et al., 2006; Vasquez et al., 2005; Vasquez et al., 2012). This displacement of aggression is influenced by angry ruminative tendencies, as illustrated in the previous example involving a worker being told off by his boss and being aggressive towards their partner. It is the engagement in angry rumination that prolongs aggressive priming, and allows an individual to remain in a heightened emotional state that is released in the form of aggression when triggered or when they experience a subsequent minor provocation (Bushman et al., 2005).

It is possible that the prevalence of TDA within an intimate relationship could lead to more prolonged and severe harm for victims, as researchers have found perpetrators who have been exposed to aggression during their childhood, are more likely to view aggression as normal behavior. For example, O'Leary, Smith Slep and O'Leary (2007) found through an exploratory Study that one important predictor of male and female partner aggression in relationships was the exposure to familial aggression. It could therefore be assumed that, for some individuals, reacting aggressively towards their partners is normal, and therefore could become an automatic response across situations, and presumably an aggressive script. This idea of normalized behavior could be reinforced through the development of ITs related to DV perpetration (or aggressive scripts), as previously discussed. For example, the '*normalization of violence*' IT (Pornari et al., 2013), as this would make the aggressor interpret their behavior as normal and therefore less likely to seek help to manage their inter-partner aggression.

It is evident that although the processes that lead to TDA explain the presence of partner aggression and DV in some situations, there are other contributing psychological processes that reinforce the expression of displaced aggression within this context. In addition to the possible exposure to DV during childhood and the development of distorted beliefs (i.e., ITs), other researchers have found that individuals who have consumed alcohol and engage in rumination are also more likely to display TDA (Denson, White, & Warburton, 2009). This could further support the notion that alcohol alongside ruminative tendencies about abusive events that occurred during an individual's childhood may play a role in them developing DV proclivities.

3.1.7.4. Generalized Trait Aggression (GTA). Within the context of DV, trait aggression is the most relevant form of aggression, supported by the prevalence of high trait aggression among samples of domestically violent males (e.g., Kane et al., 2000). In addition, trait aggression has also been associated with trait anger (Shorey, Brasfield, Febres, & Stuart, 2011), emotional difficulties (Mathis & Mueller, 2015), and angry ruminative tendencies (e.g., Pedersen et al., 2011; Verona, 2005) in adulthood. Trait aggression is commonly defined as having the tendency to engage in verbal and/or physical aggressive behavior, having hostile cognitions, and to show anger (Anestis, Anestis, Selby, & Joiner, 2009; Webster et al., 2013).

Previous research that has found links between trait aggression and DV, specifically the role of a prior interpersonal provocation (Denson, Pedersen, et al., 2011; Denson et al., 2006; Pedersen et al., 2011) as a contributor in explaining aggressive behavior towards another individual. The role of provocation will be a common theme throughout the discussion of aggression as a predictor of DV perpetration, as this is assumed to be a very important situational predictor within intimate relationships. This is supported by research which showed that aggressive tendencies were found among individuals who are highly

sensitive to provocations (Lawrence & Hodgkins, 2009). From this, it is apparent that through the understanding of developmental factors linked to DV perpetration, the justification and interpretation for DV behavior would, in most instances, follow a provocation, whether intentional or not, by the less/non-abusive partner.

Other researchers have investigated how GTA interacts with other individual factors (e.g., self-esteem, gender), previously linked explicitly to DV perpetration. For instance, previous researchers have found that individuals who are generally aggressive and are more *sensitive to provocations* tend to process aggressive stimuli faster than those who are not (Lawrence & Hodgkins, 2009). Relating this to DV, this may explain why some individuals interpret behavior from their partners as a provocation and may retaliate, depending on their level of trait aggression. Individuals could also form associations between their partner and specific behavior that may lead to inter-partner aggression through these automated associations, whether interpreted wrongly as a result of ITs related to DV (e.g., violence is normal) or other contributing factors.

Similarly, the presence of *hostile expectation biases*, and the susceptibility to interpret social interactions as hostile have been observed among individuals with high trait aggression (Dill, Anderson, Anderson, & Deuser, 1997). Hostile expectation bias is when an individual has a tendency to interpret an incident/action by another person as being aggressive (Bushman & Anderson, 2002). For these individuals it may be easier to react to a perceived action in an aggressive or defensive manner, which may lead to conflict that may have been avoidable. In the context of DV, it is likely that an abusive partner, who holds hostile expectation biases may be more inclined to start an argument with their partner based on their misperception/misinterpretation of an otherwise innocent occurrence (e.g., forgetting to buy certain items on the shopping list by mistake). This further supports the association

between individuals who are high in trait aggression and their increased likelihood to act more aggressively than those who are lower in trait aggression.

Other research suggests that *high or unstable self-esteem* influences individuals' aggressive tendencies, alongside being prone to anger (Bushman & Baumeister, 1998). This is when an individual's self-esteem is constantly fluctuating due to instances that occur throughout the day (Bushman & Baumeister, 1998), which invariably can influence an individual's temperament and reaction to certain events/interactions that may occur. Research has also shown that aggressive and angry tendencies have been observed among individuals exposed to childhood DV (Carpenter & Stacks, 2009; Holt et al., 2008). One explanation for this notion that aggressive behavior is more prevalent within individuals who have been exposed to DV (whether witnessed or abused) during childhood is the General Aggression Model (GAM; Anderson & Bushman, 2002). This model posits that aggression is present when individual differences and situational factors interact, whereby an individual's cognitive functioning, physiological arousal and affective state create three main routes to aggression (Denson, 2013). However, it is important to note that individual differences when regulating these three components will determine how likely individuals are to have aggressive tendencies.

According to this model, an individual's behavior is interpreted through the use of cognitive scripts (Anderson & Bushman, 2002). In applying this to DV behavior, when violence has been witnessed, cognitive scripts representing aggression are activated which increase the probability of future aggressive behavior (Coyne, Archer, Eslea & Liechty, 2008). For example, research suggests that an individual who is more likely to display aggression in otherwise neutral social interactions may do so as a result of learned cognitive schemas that have formed an impression of certain social interactions as being more hostile in nature, and therefore acting aggressively is understood as being acceptable (Guerra,

Huesmann & Spindler, 2003). This would suggest that when an individual has been a childhood victim of DV, or has witnessed a family member being violently abused, these scripts are strengthened and there is an increased likelihood that later in life these individuals would likely be aggressive in similar situations. This association between childhood exposure to DV aggression in adulthood and the formulation of distorted cognitive beliefs is further evidence for the role of ITs related to DV being crucial in understanding DV perpetration.

Additionally, some studies have shown trait aggression acts as a way to regulate *negative emotions* (Bushman, Baumeister & Phillips, 2001), whilst for others, trait aggression increases the consequences of negative emotions (Anestis et al., 2009), and impulsivity (Dahlen, Martin, Ragan & Kuhlman, 2004). Applying this to DV perpetrators it could be that these individuals view their abusive behavior as a way to regulate their negative emotions, following a challenging situation depending on their level of trait aggressiveness. This could also explain instances where abuse has occurred following an experience that has left the perpetrator feeling rejected or vulnerable, which may be feelings that they associate with childhood abuse.

Another individual factor influencing trait aggression is comprised of the *attitudes and beliefs* held by individuals. For instance, those who believe they have the confidence to effectively use aggression to achieve a desired outcome are more likely to aggress towards others (Anderson & Bushman, 2002). This is another attribute that could have developed as a result of childhood exposure to DV, and through positive feedback following an aggressive act, has been sustained and is exemplified in DV perpetration. Similarly, there is evidence to show that those who have developed positive attitudes or associations with violence are more likely to aggress towards others (Anderson & Bushman, 2002). In the context of intimate relationships, research suggests that individuals who have formed positive attitudes of violence towards women, in particular, are more likely to engage in hostile aggression or

sexual aggression in adulthood (Malamuth, Heavey, Linz, Barnes, & Acker, 1995).

Throughout much of the literature, this has been found predominantly for males in heterosexual relationships.

A further individual factor related to GTA and DV perpetration is *gender*. Research into gender differences and aggressive tendencies has expanded over recent years. There appears to be a consensus throughout past research that males generally display more physical or direct aggression and females more indirect forms of aggression (Anderson & Bushman, 2002; Card et al., 2008). However, the association between individual characteristics, situational cues, subtypes of aggression and nature of provocations (Bettencourt & Miller, 1996) and gender is not fully understood. For example, in the context of heterosexual relationships, females tend to use multiple forms of physical aggression more often, whereas males exert physical aggression less often, but result in more severe injury to their female partners (Archer, 2000). It is mainly how these individual and situational factors interact, to result in aggression toward an intimate partner that is a focal point here.

4. Summary and conclusions

This Chapter reviewed some key limitations surrounding the lack of a universal definition for DV, with particular emphasis on the impact this has on the development of effective early interventions for DV perpetration. Some introductory epidemiological factors of DV perpetration have been presented, where the main focus is on the high prevalence of DV in heterosexual relationships and the detrimental physical and mental health outcomes this has on victims. Also, previous research involving four key facets have been reviewed, and intertwined to make up four proposed predictive factors of DV perpetration and proclivity. These four facets were: (1) how childhood exposure to DV (experiencing and/or witnessing abuse) influences DV perpetration; (2) the role of implicit theories in developing offense-supportive cognitions of DV; (3) how angry rumination influences DV perpetrating

related behavior; and (4) the association between DV and generalized trait aggression in explaining attitudes towards DV perpetration and proclivity.

Following a discussion of how these four factors play a role in predicting DV perpetration, it is proposed that angry rumination could be a missing link between exposure to childhood abuse and DV perpetration in adulthood, when aggressive tendencies and ITs have developed and produce or facilitate DV offending behavior. It has also been proposed here that these processes and beliefs that have been formulated in childhood and reinforced in peer groups and social interactions, are then exacerbated through provoked angry rumination in adulthood.

The identification of these four components as predictors of DV perpetration enables future research to increase the predictive power of assessing DV perpetration and proclivity at an early stage. The more we understand how an individual's behavioral, social and cognitive functions are impacted through the exposure to childhood DV, the closer we are to developing early interventions towards reducing DV proclivity and perpetration before more victims are claimed by this global public health problem. With this in mind, it is suggested that these predictors should be considered as covariates. In addition, at present there are no psychometric tools that allow for the assessment of DV proclivity, and no tools that include some/all four proposed predictors into one measure. Utilising this knowledge gained from this review, the following Chapter of this thesis examines the psychometric measures that are currently used with DV perpetrators (and victims, if reporting on perpetrators' behavior), to assess their predictive power in assessing DV perpetration and proclivity.

Chapter Two

An evaluation of existing DV prediction tools that provides information about attitudes towards DV perpetration, proclivity and developmental predictive factors

This Chapter presents an evaluation of some commonly cited DV tools in order to gain a better understanding of DV perpetrators and DV proclivity (i.e., psychological predictors, motivations, developmental factors and cognitive processes), how these tools enhance our understanding of DV behaviors and attitudes; and the reliability of commonly cited measures in accessing DV attitudes and DV proclivities. Following this evaluation, it proposes the development of a self-report tool to assess DV ‘proclivity’ (defined as the behavioral propensity towards certain behaviors; e.g., Alleyne et al., 2015), and three of the proposed four predictive factors of DV detailed in Chapter one (i.e., childhood exposure to DV, selected implicit theories and angry rumination), called the Domestic Violence Proclivity and Predictors Tool (DVPPT). In brief, the author’s decision to not include generalised trait aggression (GTA) as an independent predictive factor in the development of the DVPPT is primarily based on the conceptual links between GTA and angry rumination (as discussed in Chapter one). This conceptual association is additionally evidenced by the fact that the Angry Rumination Scale (Sukhodolsky, Golub & Cromwell, 2001) includes a subscale that specifically assesses GTA. As the DVPPT will include angry rumination, it is anticipated that it will include items from the highly reliable Angry Rumination Scale, therefore assessing GTA.

Given that the focus of this thesis is to enhance our understanding of the role self-reported attitudes towards DV perpetration have on developing DV proclivities, the prediction tools evaluated in this Chapter will be those that primarily provide information about DV behaviors, and the factors that have been previously thought to motivate and

influence them (i.e., relate to DV proclivity). This evaluation of a selection of prediction tools will inform the development of the proposed new DV tool (the DVPPT).

1. Selection process of DV tools evaluated

Due to the vast number of DV tools developed, and the inconsistencies surrounding what they assess (e.g., physical abuse, risk, inter-partner abuse), potentially due to how the authors/developers define DV (e.g., wife assault, spousal battering, inter-partner aggression), only tools that have been extensively used, cited in the literature, and validated will be considered. Primarily, DV tools that have been previously evidenced to be useful in gaining information about attitudes individuals have towards DV perpetration and proclivity. For instance, the assessment of common DV predictors and risk factors of DV perpetration. Therefore, the **first criterion** is that DV tools that have been developed to assess DV perpetration and its predictors, but which have not been **extensively used and/or further validated**, will not be evaluated in this thesis due to insufficient evidence of their utility. For example, a few widely cited tools that to the author's current knowledge that have not been empirically validated across diverse samples include: (1) the Hurt, Insulted, Threatened with harm, and Screamed at them (HITS; Sherin, Sinacore, Li, Zitter & Shakil, 1998); and (2) the Domestic Violence-Related Financial Issues Scale (DV-FI; Weaver, Sanders, Campbell, & Schnabel, 2009).

The second criterion is tools developed specifically to screen female victims of heterosexual male perpetrators exclusively (i.e., spousal abuse, wife battering) without providing meaningful information about DV perpetration predictors or attitudes related to proclivity specifically, will not be included in this evaluation. One main reason for this choice by the author is because screening tools are commonly provided to predominantly heterosexual female victims in housing shelters, emergency departments or doctors surgeries, after many victims have already endured a substantial amount of abuse or violence. At this

point, the feedback is more a reflection of the current attitudes towards the perpetrator and may not fully encapsulate the long-term or immediate antecedents of the abusive partner.

Alongside this, **the third criterion is**, tools that have been exclusively developed for ‘wife batterers’ (as male heterosexual perpetrators were referred to) and do not include the perpetrators input/responses, are not included. This is because the DVPPT is anticipated to be gender neutral, and tools that have been developed specifically for male perpetrators and female victims have presumably been based on research specifically for male DV attitudes and behaviors towards females (mostly within the context of marriage). Examples of these types of measures include: the Measure of Wife Abuse (MWA; Rodenburg & Fantuzzo, 1993); the Women’s Experiences with Battering (WEB; Smith, Earp, & DeVellis, 1995; Smith, Smith, & Earp, 1999; Smith, Thornton, DeVellis, Earp, & Coker, 2002); and the Severity of Violence against women scale (Marshall, 1992). Although these tools are extremely important in the field of DV and aid in our understanding of how female victims conceptualise and process their abusive experiences (Smith, Earp & DeVellis, 1995), the focus of this thesis is on DV attitudes and proclivities of perpetrators.

Following the above selection criteria, the next section evaluates selected DV tools based on their ability to assess DV predictors and provide information about attitudes towards DV perpetrators and proclivities. As it is important to consider the most commonly cited prediction tools in the field and their contribution, the next section will briefly discuss key DV risk assessments and their contribution to our understanding of DV behaviors. This is also due to the number of studies that have incorporated risk assessments into studies aimed at assessing DV attitudes, perceptions and behaviors (e.g., Fitzpatrick, Salgado, Suvak, King & King, 2004; Nabors, Dietz & Jasinski, 2006). To further illustrate this, one specific example was when Bryant and Spencer (2003) included the Conflict Tactics Scale (CTS; Straus, 1979) in the assessment of attitudes towards the attribution of blame in DV. Similarly,

Forbes and colleagues (2006) incorporated the Revised Conflict Tactics Scales (CTS2; Straus, Hamby, Boney-McCoy & Sugar; 1996) in a Study assessing aggression-supporting attitudes and dating aggression (Forbes, Adams-Curtis, Pakalka & White, 2006). To this end, following this brief discussion of commonly cited risk assessments, there will be an evaluation of DV attitudinal measures.

2. Evaluation of selected DV prediction tools

The main purpose of this section is to evaluate the reliability, validity, and usefulness of the tools in providing information about attitudes towards DV perpetration and proclivity. There are numerous types of prediction tools and methods of assessment in the field of DV that have contributed to what we currently know about DV perpetration and proclivity. Two of the most useful/common ways in which DV perpetration has been assessed is through risk assessments and attitudinal measures. As the aim of the proposed DVPPT is to be a self-report tool that assesses the attitudes individuals have towards DV predictive factors and their DV proclivity, the focus of this evaluation will be primarily on attitudinal measures. However, it is also important to briefly discuss commonly cited risk assessments and/or screening assessment prediction tools that tap into behavioral components that contribute to our current understanding of attitudes and perceptions of DV. Therefore, while risk assessments are not directly comparable for the purpose of this thesis, there are a number of key risk assessments that will be briefly discussed in the next section, to illustrate the importance of risk prediction in a DV tool, and provide information about behaviors related to DV. Specifically, discussing the importance of reliability, validity, researcher/practitioner skills, and the interpretation of the results in informing treatment, and how this relates to behaviors and attitudes around DV perpetration and proclivity.

2.1. Risk assessment tools

Researchers have defined risk assessments as risk prediction tools that are used to inform sentencing, treatment and offender management and supervision of known offenders (Dutton & Kropp, 2000). Similarly, they are used to assess evidenced DV risk factors and predictors, and identify specific behavioral and cognitive constructs that require support and rehabilitation to help reduce the risk of recidivism (e.g., Douglas & Skeem, 2005; Hilton, Harris, Rice, Houghton & Eke, 2008; Kropp, 2008). There are two main types of prediction methods that risk assessments are developed from: (1) actuarial, and (2) structured clinical/professional judgement. Across the literature, both methods have been used extensively, however, for many DV tools the structural professional judgement approach has been shown to be more flexible as the outcome is not wholly formulated by numerical data, but allows for the benefits of professional/clinical expertise (Helmus & Bourgon, 2011; Kropp, 2008); and it is more generalizable across diverse populations (Guo & Harstall, 2008).

Other researchers state that risk assessments differ in structure, theoretical assumptions, predictive validity, professional requirements and the context in which they are used (e.g., Messing & Thaller, 2013; Nicholls et al., 2013). It is for this reason that they have been included in helping to inform the development of the new proposed tool. More specifically, as the proposed DVPPT will be a self-report measure and not require any/much professional judgement or be used to inform sentencing or treatment, risk assessment qualities related to DV attitudes, behaviors, predictors and administration will only be discussed.

To this end, the following prediction tools, termed as risk assessments or screening tools (as they assess risk factors of DV), are briefly discussed next because they either: (1) assess risk factors of DV perpetration from the offender's perspective and assess behaviors

related to DV attitudes; (2) include predictive factors of DV perpetration and proclivity that have an attitudinal component to them; and (3) have been extensively reviewed within the field of DV and further enhance our understanding of DV attitudes and perceptions. These tools are namely: (1) the **Domestic Violence Screening Instrument** (DVSI; Williams & Houghton, 1999); (2) the Danger Assessment (DA; Campbell, 1986); (3) the **Kingston Screening Instrument for Domestic Violence** (K-SID; Gelles, 1998); (4) the **Spousal Assault Risk Assessment-Version 3** (SARA-V3, Kropp & Hart, 2015); (5) the **Ontario Domestic Assault Risk Assessment** (ODARA; Hilton, Harris, Rice, Lang, Cormier & Lines, 2004); and (6) the **Domestic Violence Risk Appraisal Guide** (DVRAG; Hilton et al., 2001). All previous versions or adaptations of these scales will not be discussed in depth unless they are relevant to the understanding of the scales evaluated.

Firstly, before providing a detailed evaluation of these tools, Table 1 illustrates selected key points of these tools in relation to their intended purpose, what they specifically assess, who are the main users/intended users of the tools and crucially, what their main strengths and weaknesses are. From Table 1 it is clear that the main weaknesses of these tools are they: (1) lack of validation studies with diverse samples; (2) limited focus on one form of DV; (3) based on the feminist approach of DV where males are the perpetrators and females the victim in a heterosexual relationship; (3) reliant on clinical training to administer; and (4) rely on previous police or CJS records in order to assess risk of reoffending. These, in addition to further evaluative points, are presented in more depth next.

Table 1. *Risk Assessment tool evaluation summary of key points*

Tool	Roles	Foci	Strengths	Weaknesses	Users
Domestic Violence Screening Instrument (DVSI)	Assess risk of reoffending	Social and Behavioral characteristics of repeat offenders	Repeat offenders of severe forms of DV. Short statistical tool to inform sentencing decisions; used as a pre-arraignment assessment.	Can only be used with offenders who have a police record. Only highly reliable for severe forms of DV. Based on recorded data stored in national databases. Does not include interviews with perpetrators/defendants.	Front line police staff, prosecutors, judges, probations officers. Used within the Criminal Justice System
Danger Assessment (DA)	Assesses risk of partner homicide	Risk factors	Behaviors and motivations thought to be involved in the risk of homicidal violence. Capture higher than 90% of potential homicide instances. Only 20 minutes to administrate.	Limited generalisability to other samples other than urban sample.	Professionals with victims. Health and Social Service professionals.
Kingston Screening Instrument for Domestic Violence (K-SID)	Predict repeat DV following arrest. Inform sentencing decisions	Risk factors of IPV (e.g., sociodemographic information, abuse history, substance use history).	Collates information from a variety of sources. Assesses previous history of abuse	Not always been used reliably. Found to be a poor predictor of re-assault. Unpublished risk assessment.	Professionals. Used within the Criminal Justice System

Spousal Assault Risk Assessment-Version 3 (SARA-V3)	Risk of spousal violence	Victim vulnerability risk formulation, risk management planning and risk scenario planning	Good concurrent validity. Uses both quantitative and clinical based data. Used to guide clinical decision making	Relies on training and/or structured professional judgement to reliably interpret to ensure high predictive power. Focussed on violent reoffending.	Professionals. Used within the Criminal Justice System.
Ontario Domestic Assault Risk Assessment (ODARA)	Wife assault recidivism	History of offending, Presence of risk factors,	Easy to score and interpret; Assesses the frequency of previous DV, sociodemographic factors as well as common risk factors. Good interrater reliability	Limited to 'wife' recidivism; Lack of information about psychological motivations for recidivism	Police officials, Experienced risk assessors, frontline policing settings
Domestic Violence Risk Appraisal Guide (DVRAG)	Wife assault recidivism	Psychosocial and clinical factors; Psychopathy	Reliably assesses dichotomous recidivism; Assesses the occurrence, frequency and severity of recidivism; Helps inform treatment and sentencing decisions.	Not widely validated; Info based strictly from police records; Strict definition of wife assault used; Reliable at specifically assessing violent recidivism and psychopathy	Professionals and researchers

Uses both
quantitative and
clinical based data.

2.1.1 The Domestic Violence Screening Instrument (DVSI)

The DVSI was aimed at providing behavioral information about the arrestee/offender to the Criminal Justice System (CJS) and front line police officers. It is used to help determine their sentence following arrest (Williams & Houghton, 2004). It is a 12 item tool that assesses recidivism through specific social and behavioral characteristics. These include, previous convictions and arrests (family and non-family), breach of court orders or probation orders, employment status, relationship status including recent separation information, the presence of children and use/presence of weapons during DV (Williams & Houghton, 2004).

The administration of the DVSI involves the collation of information about the offender's criminal history from their CJS case files. Every item pertaining to either a social or behavioral characteristic was scored from either 0 to 2 or 0 to 3, depending on the individual's history of breaking court/restraining orders, have a weapon or children present during DV instances, or any information about community supervision during the same time as the DV events. The DVSI was scored by calculating a total score and the higher the score the higher the risk of reoffending.

As the completion of the DVSI is dependent on recorded data from police data bases, not all users will have jurisdiction to access all the necessary records which would lead to missing data and therefore limit the validity of the DVSI. Therefore, identifying the most accurate and completely up to date data sources would likely increase its validity and reliability. For this reason, it has been shown to be a tool with a moderate degree of predictive accuracy (Williams & Houghton, 2004), as it can only be used with individuals who have a previous police record/offending history. For example, the predictive validity of the DVSI was empirically supported in a sample that comprised of 1465 male DV offenders, across an 18 month period, using different methodologies (Williams & Houghton, 2004).

The DVSI has also been noted to have higher predictive accuracy for more severe forms of DV related behavior, such as threatening a partner and the use of physical violence. This suggests that the DVSI is a good tool, with good reliability, but most useful when assessing repeat offenders of severe forms of DV (Nicholls et al., 2013), as it only gathers information *after* the perpetrator has come to the attention of the CJS. Comparatively, other researchers have noted its low predictive accuracy for reoffending behavior that is not very severe, and it has moderate predictive accuracy for more severe behavior such as physical violence (Bowen, 2011; Nicholls et al., 2013). This implies that the DVSI is most reliable when assessing severe forms of DV such as physical violence, and is limited in its ability to reliably assess other forms of DV, such as psychological, emotional and controlling/threatening behavior.

Overall, when considering the behavioral elements of the DVSI in informing our understanding of DV perpetration, the DVSI is a good tool as it acknowledges the importance of both social and behavioral components that influence an individual's life trajectory, and not only the immediate risk factors. It has also been found to be highly reliable in predicting severe injury through physical violence, and while this is important to assess in terms of DV behaviors, it is quite limiting. It suggests that this tool would have to be used in conjunction with other tools assessing other DV related behaviors (e.g., emotional abuse, controlling behaviors), which would lengthen the administration time, and processing of the results of the assessment. Also, the use of case files and police records is useful in predicting future behavior from past behavior, but it is only useful if the assessor can freely access these files in a timely manner, and they are correct/complete. In addition, it is assumed a degree of training would be needed in order to attain and interpret these records to score them accurately, as records are not always written for the purposes of future use in this manner. The main contribution this tool provides to the author is the importance of including

contributing social factors (i.e., presence of children), as this is not often assessed across other tools.

2.1.2 The Danger Assessment (DA)

There are two versions of the Danger Assessment and both have been termed as instruments that are both clinical and research based, and can be used to help battered women to assess their danger of being murdered as well as them killing their abusive partners or ex-intimate partners (Campbell, Webster & Glass, 2008). In this section the original version will be briefly outlined, and the revised version will be discussed in more depth. The original version of the Danger Assessment was developed by Campbell (2004) to assess the risk factors for intimate partner homicide (Campbell, Webster & Glass, 2009), the most fatal outcome of DV.

The original DA (Campbell, 2004), and had two parts: (1) a calendar of the previous year, for the women to indicate the days during which the abusive incidents happened, and rank the severity from a scale of 1-5 (1= 'slapping, pushing, no injuries, and/or lasting pain' to 5 = 'use of weapon, injury from weapon'); (2) 15 items assessing the risk factors for intimate partner homicide, with participant responses measured by either 'yes' or 'no'.

The revised version of the Danger Assessment (DA-R; Campbell, Webster & Glass, 2008) was revised following findings from a Study involving interviews with female victims across 11 cities. The revised version has a total of 20 items as it includes the addition of four new items assessing: (1) unemployment of the abuser; (2) a child in the home who is not the biological offspring of the abuser; (3) evidence of the abuser engaging in stalking behavior towards the victim; and (4) the victim separating from the abuser after a period of living together (Campbell, Webster & Glass, 2008). In addition to this, other revisions included: the rephrasing of the item: 'Is he violent towards your children?' to 'Does he threaten to harm

your children?'; the item 'threaten to kill you and perceive him as capable of killing you' was split into two separate items; and finally, the item 'prior arrest of abusive partner for IPV' was substituted for one that assessed the abuser 'being violent outside of the home' (Campbell, Webster & Glass, 2008). The scoring of the revised DA enabled four categories of danger to be determined: (1) '*variable danger*' (total 0-7); (2) '*increased danger*' (total 8-13); (3) '*severe danger*' (total 14-17); and (4) '*extreme danger*' (total 18+). Crucially, the DA-R was developed to include the assessment of re-assault in female same-sex intimate relationships (Glass et al., 2008).

The DA takes approximately 20 minutes to complete, and can be completed through interviews with the victim with health care and social services professionals (Campbell, Webster, & Glass, 2009). This short administration time is a desirably quality for a DV tool as it provides valuable information in a reasonable amount of time, and does not put the victim at risk if they fear retribution from the perpetrator if they are found to be providing this information to professionals that could lead to them being prosecuted.

The revised DA has been shown to be a highly reliable measure through the use of comparison studies between attempted homicides/femicides and control samples, by using the AUC (area under the curve) for the ROC curves. For example, in the original revision Study, this was found to be .862 (Campbell, Webster & Glass, 2008), which is highly reliable. In this same Study the developers stated that the revised DA was capable of capturing higher than 90% of potential homicide instances through the use of the '*increased danger*' level. It has also been found to have high predictive reliability of detecting those at risk of severe re-assaults, in a sample of 782 abused women (Campbell et al., 2005).

From this, the revised DA has been found to be extremely useful in understanding DV as it provides information about behaviors and motivations thought to be involved in the "risk of violence escalation or the potential for homicidal violence among domestic violence

offenders” (Goodman, Dutton & Bennett, 2000, p.64). Likewise, an overall strength of the DA and the DA-R is its ability to attain first-hand information from victims about the severity of their risk of being killed by their intimate partners or ex-intimate partners. Its ability to assess the risk of fatality at different levels of severity has practical implications as it is useful in helping support services put in place the most appropriate support for any given individual.

However, one key limitation of the DA is that it was developed using an urban sample, and its reliability and validity with rural samples is not clear (Campbell, Webster, & Glass, 2009). In line with the intersectionality approach to DV, the limited generalisability of this tool has wider implications on the usability of the scale in terms of its effectiveness. Specifically, in relation to reliably assessing levels of danger of intimate partner lethality in areas that may require more immediate support due to its remoteness or lack of other forms of social support. From this, it is apparent that a tool that is flexible in how it can be used with an individual is valuable (i.e., through an interview or self-report), utilising victims perspectives in understanding DV behavior and the importance of a tools reliability across diverse samples.

2.1.3 The Kingston Screening Instrument for Domestic Violence (K-SID)

The K-SID was an actuarial measure developed to predict repeat DV following an arrest, and has been used to better inform decisions about the sentencing of DV offenders, regulations about their probation, and specific release recommendations (Gelles & Straus, 1990, as cited in Campbell et al., 2005).

The K-SID is scored based primarily on CJS case files and is made up of three sections: (1) a poverty chart; (2) a severity and injury index; (3) 10 items that measure risk factors of DV perpetration (e.g., education, age, employment status, marital status, witness to DV as a child, substance abuse history); any other history of abusive experiences (e.g., DV in

family of origin); previous DV arrests; and any violations of protective order (Heckert & Gondolf, 2004; Roehl & Guertin, 2000).

On the whole, little research has assessed the predictive validity of this instrument, and previous reviews of the K-SID have noted that it has not always been used reliably, for example, has not always been administered correctly (Messing & Thaller, 2012). Therefore, findings are inconsistent which renders, evaluation of its utility is difficult. Additionally, according to Heckert and Gondolf (2004), the K-SID was a poor predictor for re-assault in a Study which compared the K-SID, SARA and DA to women's own perceptions of the risk of re-assault. Other reviews have labelled the K-SID as an "unpublished risk assessment" (Nicholls et al., 2013, p. 102), that has not been fully validated (Nicholls et al., 2013), and this needs to be taken into consideration in this evaluation.

In evaluating this tool, it is important to note that not only has it been found that the K-SID is an unpublished measure, with only one published article (Nicholls et al., 2013), but also many studies have not administered the K-SID correctly (Messing & Thaller, 2013), which makes it a difficult tool to evaluate. In addition, the K-SID is limited in its ability to assess risk factors that provide information about the immediate antecedents of DV offending. Although it collates information from a variety of sources, and assesses previous history of abuse (both to the offender during childhood and their own previous offending history), it does not provide any other useful information about the psychological factors (e.g., need to show power/dominance, feeling of revenge) that could motivate/contribute to an individual's initial DV offending. However, the value of including a measure of DV predictors in different formats is useful information gleaned from this tool, and potential limitations that may arise if the tool is reliant on information from external sources (e.g., police force or CJS).

2.1.4 The Spousal Assault Risk Assessment- Version 3 (SARA-V3)

The original version of the SARA was developed as a guide for professionals and combines the use of statistical methods and clinical judgment when assessing the risk of spousal violence, and is one of the most commonly cited DV tools (Helmus & Bourgon, 2011). Specifically, the SARA is used to assess common risk factors among offenders in terms of their individual and perceived risk, where external influences are considered in a very systematic and logical way (Kropp & Hart, 2000). It was not constructed using empirical or psychometric methodology, but was instead, informed primarily by empirical literature and clinical interpretation of factors related to males who are domestically violent (Hilton et al., 2004). Some researchers state that this method should increase the generalisability of the tool as it was not based on responses from a specific population (Hilton et al., 2004). However, others have stated that this approach may limit the utility of this tool because a level of empirical validation is necessary to yield reliable predictions based on norms linked to predictions set by researchers (Helmus & Bourgon, 2011).

However, with this in mind, the latest version of the SARA, reflects a more in depth focus of the structural professional judgement (SPJ) approach to developing risk assessments as it includes guidelines for risk formulation, risk management planning and risk scenario planning.

The original SARA included 20 risk factors covering five key areas: *criminality* (e.g., assault of family members; assault of strangers); *history of spousal assault* (e.g., physical, sexual, use of weapons); *index offense* (e.g., violation of no contact order); and *psychosocial adjustment* (e.g., relationship problems; employment; psychotic disorders); and *other* (e.g., stalking; torture; Belfrage et al., 2012). Whereas, the SARA-V3 includes items that assess victim vulnerability, to support in the steps towards safety planning for the victim. In addition, it includes new risk items and had been redesigned to include three domains: (N)

the nature of the IPV assessed by 8 items; (P) the perpetrator risk factors assessed by 10 items; and (V) victim vulnerability factors assessed by 6 items. The total rating would lie between zero and 36, and the scores across all items were taken at two time frames to reflect the ratings across time.

The administration of this scale involves six stages: (1) gathering information; (2) rating the presence of risk factors; (3) rating the relevance of the risk factors and formulating the case; (4) developing the scenario plan; and (5) determine the plans for risk management; and (6) establish final risk judgements.

Considering the reliability of the SARA-V3, a recent evaluation of the SARA-V3 found that it had good concurrent validity with the SARA-V2 (Kropp, Hart, Webster & Eaves, 1995), the Brief Spousal Assault Form for the Evaluation of Risk (B-SAFER; Kropp, Hart, & Belfrage, 2005), and moderate to large positive associations with the ODARA, DA and DVRAG (Ryan, 2016). It is worth noting that as the SARA-V3 is a structured professional guide, it is reliant on trained professionals to administer it and interpret it in line with their clinical judgement. For instance, some researchers have attributed its high predictive power to the structured professional judgment (Kropp & Hart, 2000). While this is beneficial to professionals who work with the criminal justice system and victim services, from a practical perspective, the SARA's reliance on structured clinical judgement somewhat limits its ability as a research tool. Specifically, its accessibility to those who are working towards building interventions, and is primarily used to assess DV recidivism through interviews with the apprehended offender.

In terms of the overall validity of the SARA-V3, there appears to be limited validation of this new version in the current literature, to the author's knowledge. However, from what we know from validation studies of the original version, the findings can be comparable on the similar constructs included in both versions. For example, previous validation studies of

the SARA have found: (1) the interrater reliability for the critical items or the clinical risk rating to be low (ICC .18 to .63; Kropp & Hart, 2000); (2) a significant ability to predict wife assault recidivism among 88 male offenders in Sweden, through a retrospective study looking as SARA assessments (Grann & Wedin, 2002); and (3) the total scores for the second set of 10 risk items showed higher significance in the predictions for wife assault recidivists when compared to non-recidivists (Grann & Wedin, 2002; Kropp & Hart, 2000).

In addition, Grann and Wedin (2002) further posit that the items that measure (1) the actions following conditional release (i.e., ‘Past violation of conditional release or community supervision’); (2) a history of personality disorders (i.e., ‘Personality Disorder with anger, impulsivity, or behavioral instability’); and (3) acceptance/denial of spousal assault (i.e., ‘extreme minimization or denial of spousal assault history’; ‘attitudes to support or condone spousal assault’), are all useful predictors of DV recidivism. Subsequently, this particular validation study suggests that the SARA is specifically targeted/most effective for individuals who have a *history* of physically assaulting their wives. In addition, this validation study of the SARA has reported it to have high convergent and discriminant validity, particularly for general violence and IPV assessment (Belfrage et al., 2012). However, it does not adequately assess other forms of DV recidivism such as emotional abuse or controlling behavior).

Some researchers state that there have been no test-retest reliability studies conducted using the original SARA (Kropp & Hart, 2000), and limited studies using the SARA-V3, which brings into question its validity as an assessment of recidivism across DV offenders, and its statistical reliability to predict the same offender’s recidivism consistently. Similarly, although the SARA has been found to assess more dynamic risk factors in comparison to the ODARA and the DVSI (Messing & Thaller, 2014), it can be said that these are poor predictors of DV that do not necessarily reflect recent knowledge about DV perpetration (i.e.,

it should not be used with female DV offenders). However, the SARA-V3 has been used with both male and female samples, taking into consideration any sexual orientation and culture, which is justified by the applicability of primary risk factors across these qualities (e.g., Capaldi et al., 2012).

Additionally, whilst it has been found to be statistically valid, with adequate inter-rater reliability, ease of use, and moderate predictive accuracy (Helmus & Bourgon, 2011), some argue that this degree of reliability relies on a lot of relevant information that is not always available or recorded. Examples of this include; prior criminal activity, history of DV, and/or a diagnosis of a personality disorder (Rettenberger & Ehert, 2012), all of which were found to be present in the SARA-V3 also. Likewise, researchers state that it has only been used with white male offenders aged between 30-40 years (Helmus & Bourgon, 2011). Other researchers have supported these criticisms of its lack of diversity and validation. For instance, it has been noted that the SARA has not been validated using a British sample, and yet it is being used in practices across England and Wales (Bowen, 2011). Lastly, the SARA relies on multiple sources of information, and, in some instances, when practitioners and researchers are unable to gain access to all information needed, the results of the SARA need to be interpreted with caution (Helmus & Bourgon, 2011).

Overall, considering the previous discussion it is clear that both the SARA and SARA-V3 are highly reliable and valid measures for assessing violent DV re-offending. However, high predictability appears reliant on: (1) professional/clinical training to be able interpret the findings; (2) access to and the accurate recording of the information to be analysed; and (3) the perpetrator having a history of DV offending and/or violent offence towards an intimate partner. These are clear limitations to their practicability for researchers

that may not be SARA trained, do not have access to certain case files and in assessing the more-subtle/physically visible forms of DV that are not mediated by violence.

2.1.5 The Ontario Domestic Assault Risk Assessment (ODARA)

The ODARA was designed as an assessment tool for police officials, to measure wife assault recidivism (Rettenberger & Ehert, 2012), defined as the likelihood a man would assault his wife again. The main objective of the ODARA was primarily for experienced risk assessors (i.e., police officers, nursing staff, counsellors), and victim service workers (Rice, Harris & Hilton, 2009), to assess the risk of DV recidivism within spousal abusive relationships.

The ODARA's 13 items assess: previous engagement in DV; whether the victim was confined to the household; how many children a couple had; whether the perpetrator assaulted the victim during her pregnancy; whether the children were conceived with previous partners; details regarding the victim's concerns about being assaulted again; and barriers to the victim accessing support. Other items focus on targeting common risk-factors associated with antisocial behavior, such as; the presence of previous sentencing; whether they met the regulations of conditional release; any history of substance abuse; prior threats of violence to others; and two items focused on any previous non-domestic violence (Hilton et al., 2004).

The ODARA is reliant on information provided by the victim via self-report. It is assumed that gaining information directly from the victim increases the reliability of the assessment as it provides police officers with accurate first-hand information about the abusive couple (e.g., Hilton et al., 2004). Other researchers have noted that the ODARA is useful as it is brief to administer and easy to score and interpret by those without any statistical training (Belfrage et al., 2012; Rettenberger & Ehert, 2012).

Reviews of the ODARA have shown it to have high inter-rater reliability (ICC .48) and concurrent validity, especially when compared with other DV recidivism risk instruments. For example, the ODARA scoring has better predictive accuracy compared to both the DA and the SARA (Hilton et al., 2004). Other researchers have focused on evaluating the predictive accuracy of the ODARA and found that among a group of 150 male DV offenders, followed-up for an average of 5 years, the recidivism rate was 27% (Hilton, Harris, Popham, et al., 2010, as cited in Rettenberger & Ehert, 2012), predicted by the ODARA. Likewise, the ODARA and the DVRAG were both found to significantly predict DV recidivism, with the ODARA showing high discriminant validity for DV compared to predicting general violent recidivism (Rettenberger et al., 2013). However, when predicting DV recidivism, the ODARA and the DVRAG showed no significant differences in their results.

From this, it appears that the ODARA is a reliable measure in determining whether a DV offender will reoffend. However, the items used primarily tap into the frequency of previous DV behaviors (e.g., assaults on victim when pregnant), sociodemographic factors (e.g., ethnicity), common risk factors (e.g., substance abuse problem); but is limited in its ability to assess psychological factors, particularly the motivations or antecedents of the onset of the DV. It is important to note that the ODARA is also a tool that *reliably* assesses wife recidivism (i.e., DV specifically within the context of marriage; husband abuser and wife victim), and not DV towards an intimate partner that is not a 'wife', which may limit its applicability across all types of DV offenders, such as same sex partners and neither is it gender neutral, which means it may not be applicable to female DV offenders as well as male offenders.

2.1.6 Domestic Violence Risk Appraisal Guide (DVRAG)

The DVRAG (Hilton et al., 2008) was developed as an improvement of the ODARA's ability as a brief actuarial assessment to assess severe violent wife assault recidivism. It is a 14 item assessment that was designed as an improvement on the ODARA. This was achieved by including the assessment of psychosocial and clinical factors, to enhance its predictive accuracy and reliability. The additional items were taken from the Hare Psychopathy Checklist (PCL-R; Hare, 2003), to assess psychopathy through an interview and collation of file information since the PCL-R has also been found to reliably predict violent recidivism (Harris et al., 2001). As the DVRAG combined items from the ODARA and the PCL-R, its administration requires someone with advanced clinical training (Williams, 2012), and is commonly used by police officers and those first to a DV incident (Hilton & Quinsey, 2017).

In the development of the DVRAG, other assessment tools were used in its cross-validation to determine its validity and reliability in assessing wife assault recidivism. These tools were: (1) the Violence Risk Appraisal Guide (VRAG; Harris et al., 1993), and has been replicated in over 30 studies to predict the violent recidivism of males towards their spouses (Hilton et al., 2001); (2) the SARA; (3) the DA; and (4) the DVSI. Other researchers have concluded that the DVRAG is a slight improvement in assessing high risk cases of violent reoffending, but otherwise, it is comparable to the ODARA in discriminative validity (Gray, 2012).

On the whole, the DVRAG reliably predicts dichotomous recidivism (i.e., violent recidivism or not) using, specifically, severity indices, and information from police records (e.g., substance abuse, previous instances of DV, violence, prior violation of conditional release order, spousal assault history; Hilton et al., 2008). Other studies have also found the

DVRAG to have good inter-rater reliability in predicting the occurrence, frequency and severity of wife assault recidivism (Hilton et al., 2008). As a result, some researchers have stated that the DVRAG is a definite improvement on the ODARA as it assesses psychopathy, in particular anti-sociality, making it more useful to practitioners deciding on treatment needs and sentencing (Hilton et al., 2008). It has also been noted that the DVRAG assessed predictors of wife assault better than the SARA, ODARA, DA and the DVSI (Bowen, 2011; Grann & Wedin, 2002).

However, there are some limitations to the DVRAG. For instance, there has only been one validation Study conducted (Hilton et al., 2008), to the author's current knowledge. In addition, some researchers have suggested that the definition used for wife assault was very stringent and only information gained through official police records was used, which did not include previous arrests or criminal charges (Bowen, 2011).

In evaluating the usefulness of the DVRAG as a DV tool that would provide specific information about DV offenders, it must be said that the DVRAG appears to be more useful in assessing violent recidivism and psychopathy. It has also been extensively shown to be especially strong at assessing the severity of the injuries of the victim (Hilton et al., 2008).

While these factors (i.e., use of violence), may be congruent with DV offenders' behavior (e.g., Wilkinson & Hamerschlag, 2005), it would suggest that the specialist knowledge and subtle differences in psychological processes among offender groups (i.e., violent offenders and DV offenders) are not taken into consideration. The fact that the DVRAG assesses dichotomous recidivism does acknowledge that not all offenders who have been arrested for a violent offence against their wife will reoffend in the same way; however, it is the nature of their attitudes and motivations on release from prison and/or correctional facility that would contribute to our understanding of DV offenders.

Lastly, the DVRAG has been designed for wife assault recidivism, and therefore only taps into the common/well documented risk factors of male perpetrators within a heterosexual marriage. This does not account for the assessment of violence/DV recidivism of female offenders, or those in an intimate relationship that are not married. Another limitation is the use of historical information that may not be a true indicator of the current mental/psychological state of the individual post arrest. While past behavior has been said to be a valuable indicator of future behavior (Williams & Houghton, 2004), this does not provide information about the cognitive reasoning or motivations an individual may have about their past offence/s and future behavior.

2.1.7 Summary of discussion of risk assessments

Although there are noted methodological issues in the tools mentioned above, the overall contribution of these tools in advancing DV research remains undisputed. The development of DV assessment tools provide a way of measuring specific attributes, behaviors, and risk factors related to DV perpetration that can be used to better inform treatments and interventions.

It is important to note that although the current project is not proposing the development of a risk assessment, but instead an attitudinal measure (with a proclivity component). As such, the brief evaluation of the selected tools, has been conducted to provide some insight into: (1) the types of behaviors that are related to DV perpetrators; (2) predictive factors that have been linked to different forms of DV perpetration; and (3) the elements of a DV tool that have been found to be reliable in the development, administration and information gathering. It is evident that across the selected risk assessments there are valuable points to note in informing the development of the proposed tool, in line with the three categories mentioned above.

Firstly, it is important to note that some of these DV instruments were developed to assess risk factors related to only **male perpetrators** in heterosexual relationships (usually married), in line with the feminist perspective of DV. There have been no studies, to the author's current knowledge that have adapted these tools for use with female offenders or validated their reliability in assessing the risk among female offenders. Likewise, some common risk factors included in these tools were: the use/misuse of substances, exposure to violence within the family, general violence/violent recidivism, anger, trauma, relationship and attachment patterns. These are distal and behavioral factors which provide useful information for assessing the more long-term risk factors leading up to the DV. However, they do not measure the more immediate antecedents and dynamic risk factors of DV offending, or attitudes towards intended behavior, and so, as yet, we do not know what these are in any detail.

Lastly, in reviewing the reliability of these tools in **predicting DV recidivism**, previous researchers have stated that using risk assessment tools is only the first stage of addressing the increase in DV (e.g., Hilton et al., 2008). This said, researchers are urged to look for ways to *prevent* violence and abuse, and suggest this could be achieved by designing risk management plans based on risk factors (Dutton & Kropp, 2000). They make an important point, that "it is impossible, without breaching ethical considerations [i.e., placing offender or past/potential victim in danger], to know that the risk factors incorporated into pre-existing tools are accurate, since high-risk offenders are not released into the community without intervention or restraints" (Dutton & Kropp, 2000, p.178).

It is also evident that while many of these instruments are primarily useful in identifying violent recidivism among DV offenders, it is difficult to speculate that the same risk factors would be present among individuals that have a *tendency* to engage in DV behavior, but who have no history of doing so. It had been noted that a continuous

assessment of dynamic/changeable risk factors is also important to assess when constructing a risk assessment (Dutton & Kropp, 2000), one of which is the way in which people think about DV, their offending, their attitudes towards violence, and their previous or potential victims. Identifying this could provide an invaluable step towards informing early preventative interventions for DV offenders. Likewise, to determine the accuracy of the pre-existing risk factors, and provide more insight into the psychological variables that make some individuals more likely to engage in DV behavior would contribute to the development of such interventions.

From this brief discussion of some of the most cited DV risk assessments, the focus of the developers appears to have been on: (1) assessing wife assault recidivism; (2) understanding recidivism of male offenders; (3) violent recidivism; (4) the use of past historical variables that identify common situational risk factors (e.g., substance abuse, lack of employment), and past offending history (e.g., prior sexual offences; prior violation of court orders); and (5) reliant on access to past records from police and government officials about personal and offending history. While this information is valuable in understanding offending behaviors and risk of recidivism, it is somewhat limited in: the *contextual information* it provides about DV offending (e.g., motivations to commit a specific DV behavior; events that happened prior to the specific DV offence); a more complete record/account of the individual *dynamic variables* around the time of the offence (e.g., changes in temperament, mood); information about individual *interpretations and attitudes* towards DV offences (e.g., the nature of the thought processes prior to offending; justifications given for offending); factors that may have developed during childhood that might impact the nature of DV offending (e.g., exposure to childhood DV; inter-parental violence); and information about individuals who were close to offending but did not, and yet shared similar attitudes towards violence and intimate partners that may mean they could

offend, or have offended but not through physical or sexual violence. All of these aspects and shortcomings will be considered in the development of the DVPPT.

Specifically, taking these points into consideration, the proposed tool (the DVPPT) aims to include prevalent predictive factors found across all types of DV offenders (e.g., childhood exposure to DV) that will be framed/revised in a way that is applicable to both males and females (i.e., will be gender neutral and based on contemporary evidenced risk factors). Also, in light of the risk factors assessed in previous tools, the DVPPT includes one prevalent risk factor that is prevalent across DV literature (i.e., childhood exposure to DV), and proposes a contemporary, novel predictor that could be an immediate antecedent to DV behaviors (i.e., angry rumination), discussed in more detail in the next chapter.

In summary, this brief discussion has provided an insight into how risk factors and predictors are assessed and measured, and has highlighted some key limitations in each of the above that somewhat restrict them from being comprehensive measures of DV. It has demonstrated (1) the value of incorporating prevalent predictive factors of DV offending into a tool; (2) including more than one DV behavior into a tool; (3) developing a tool that is not reliant on clinical training in order to use it for simply collecting information about DV offending; (4) not being strictly based on feminist ideology when designing DV tools, by phrasing questions for only male perpetrators and female victims, and including only those in a heterosexual marriage; and (5) not being overly reliant on previous offending records as this may restrict the potential of identifying first time offenders of DV.

From this previous discussion, a tool that assesses and identifies individuals who hold similar attitudes or beliefs as DV perpetrators and who are at risk of engaging in DV behavior based on their attitudes towards DV perpetration, may help to address some of the points discussed above. Instruments that have shown remarkable potential in assessing the likelihood that an individual, who may share similar attitudes/beliefs to those of offenders,

and therefore would probably behave the same way as an offender, are proclivity scales (which will be discussed in Chapter 3); and attitudinal measures. To this end, commonly cited DV attitudinal measures will be evaluated with the aim of justifying and informing the development of the proposed DVPPT.

2.2. Attitudinal and Behavioral measures

Briefly, one of the underpinning justifications for evaluating attitudinal and behavioral measures with the aim of directly informing the development of the DVPPT in the current research is through the well-established relationship between attitudes and behavior (e.g., Flood & Pease, 2009; Koenig et al., 2003; Koenig, Stephenson, Ahmed, Jejeebhoy & Campbell, 2006). For instance, while not the theoretical focus of this thesis, one of the most suited models that illustrate the attitude-behavior link is the theory of reasoned action (Ajzen & Fishbein, 1977), and the Theory of Planned Behavior (Ajzen 1991). Here, it is the attitudes and normative associations about a behavior that influence one's intentions of how they should behave, which often results in them behaving in a particular manner (e.g., Weber, Blais & Betz, 2002). On this basis, many DV tools have been developed to be attitudinal self-report measures that provide information about an individual's attitudes towards specific behaviors and constructs related to DV. As the focus of the current thesis is to develop a DV tool that assesses the attitudes individuals form towards DV perpetration surrounding key predictors, and DV proclivity, it would be beneficial to evaluate the most commonly cited (i.e., used and researched) DV attitudinal and behavioral tools to gain an understanding of their usefulness, psychometric properties, reliability and validity.

To this end, the tools that have been chosen to evaluate in this section are:

- (1) the **Revised Conflict Tactics Scale** (CTS2; Straus, Hamby, Boney-McCoy & Sugar, 1996);
- (2) the **Abusive Behavior Inventory** (ABI; Shepard & Campbell, 1992);

- (3) **the Inventory of Beliefs about Wife Beating** (IBWB; Saunders, Lynch, Grayson & Linz, 1987);
- (4) **the Psychological Maltreatment of Women Inventory** (PMWI; Tolman, 1989);
- (5) **the Abuse within Intimate Relationships Scale** (AIRS; Borjesson, Aarons & Dunn, 2003);
- (6) **the Propensity for Abusiveness Scale** (PAS; Dutton, 1995);
- (7) **the Composite Abuse Scale** (CAS; Hegarty, Sheehan & Schonfeld, 1999); and
- (8) **the Index of Spouse Abuse** (ISA; Hudson & McIntosh, 1981).

Firstly, before providing a detailed evaluation of these tools, Table 2 shows details key points of the tools in relation to their intended purpose, what they specifically assess, who the main users/intended users of the tools would be, and crucially, what their main strengths and weaknesses are. Looking at Table 2 it is clear that the main weaknesses of these tools are they: (1) are primarily focused on assessing only one form of DV, and where there are more than one form assessed, they are usually linked to the feminist ideology of DV (i.e., do not account for coercive control or emotional abuse by females/males); (2) have no further validation studies or lack validation studies with diverse samples; (3) they have not undergone rigorous statistical analysis to assess their reliability and validity; (4) mostly not gender neutral, but uses 'he' or 'him' to refer to the perpetrator/intimate abusive partner; and (5) they are heavily based on female perspective of DV, with little consideration of the perpetrators motivations, beliefs or attitudes towards DV. These in addition to further evaluative points are presented in more depth next.

Table 2. *Attitudinal and behavioral tools evaluation summary of key points*

Tool	Roles	Foci	Strengths	Weaknesses	Users
Revised Conflict Tactics Scale (CTS2)	Assesses frequency of the following behaviors/tactics couples engage in: psychological aggression, negotiation, physical assault, sexual coercion, and physical injury	DV Behaviors or tactics used by both partners in an abusive relationship	Gender neutral; Assesses a wide range of behaviors; Includes information about both partners' behaviors; Could inform treatment programmes	Does not provide information about the context or motives for the DV behaviors.	Researchers, Practitioners
Abusive Behavior Inventory (ABI)	Wife battery	Physical and psychological abusive behaviors	Both wife batterers and wives responses were included (i.e., males and females, victims and perpetrators). Could be used to evaluate male batterer programs.	Sample were currently being treated for alcohol abuse, Limited validation studies,	Researchers, Healthcare and other service Practitioners
Inventory of Beliefs about Wife Beating (IBWB)	Assess attitudes	Attitudes individuals have about women who are abused/physically harmed by their husbands	Acknowledges the importance of societal views related to DV. Could be used to evaluate treatment programs. Developed with diverse sample.	Low reliability across all subscales. Limited validation studies	Researchers, Practitioners

Psychological Maltreatment of Women Inventory (PMWI);	Assess psychological abuse by male offenders.	Psychological abuse using two sub-scales: dominance-isolation' and 'emotional-verbal'	Used a diverse sample (including both males and females) to develop tool, Highly reliable	Limited to psychological abuse from a feminist perspective.	Researchers, Practitioners
Abuse within Intimate Relationships Scale (AIRS)	Assess abusive behaviors among young males	Physical and psychological abuse, specifically emotional abuse, deception, and verbal abuse.	Statistically reliable. Identify precursors to DV within a relationship who are young adults.	Limited validation studies.	Researchers, Practitioners
Propensity for Abusiveness Scale (PAS)	Male perpetrators behaviors	Recalled negative parental treatment, Affective lability, and Trauma symptoms.	Do not overtly measure abusiveness, Takes the partners perspective of the abusive behaviors, High predictive validity. Good at measuring emotional abuse and predict physical abuse across diverse samples.	Limited to predicting abusiveness from a feminist perspective.	Researchers, Practitioners
Composite Abuse Scale (CAS) and the CAS_R-SF	Assesses abusive behaviors towards women	Physical abuse, emotional abuse, severe combined abuse and harassment.	Provides information about victim's experiences and their severity. High reliability.	Requires a level of clinical experience to administer the CAS. Does not provide information about the motivations of abuse.	Clinical psychologists primarily

Index of Spouse Abuse (ISA)	Assesses abuse towards female victims	Physical and non-physical abuse of females	Quick and Easy to administer; used on diverse samples, accessible to those with low literacy levels.	Items found to assess physical abuse do not all assess physical abuse, but instead include coercive control, sexual and psychological abuse.	Researchers, Practitioners
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2.2.1 Revised Conflict Tactics Scale (CTS2)

The CTS2 is a behavioral measure developed to assess the “extent to which partners in a dating, cohabiting, or marital relationship engage in psychological and physical attacks on each other and also their use of reasoning or negotiation to deal with the conflicts” (Straus et al., 1996, p. 283), and is conceptually the same as the original CTS (Straus, 1979).

It is comprised of 39 unique items presented in pairs (one for the participant and one for their partner), that assesses five factors associated with DV: negotiation (example of cognitive negotiation item: “Agreed to try a solution to a disagreement my partner suggested”); psychological aggression (example item of severe psychological aggression: “Destroyed something belonging to my partner”); physical assault (example item of severe physical assault: “Slammed my partner against a wall”); sexual coercion (example item of severe sexual coercion: “Used force (like hitting, holding down, or using a weapon) to make my partner have sex”); and physical injury (example item minor physical injury: “Felt physical pain that still hurt the next day because of a fight with my partner”). The CTS2 is completed through self-report by either the victim about the victim’s experience and their partner (the perpetrator), or by both partners. Either option is possible as each item is presented in pairs, as previously outlined.

Although there has been little documented research using the CTS2 in comparison to the CTS, a number of studies have found the CTS2 to be reliable in measuring numerous tactics individuals use during domestic conflict conceptualised as DV (e.g., Straus et al., 1996; Taft et al., 2008). For instance, it is reliable in assessing DV victimisation across different cultures (e.g., Straus, 2004); among

high-risk postpartum females (Newton et al., 2001); and among incarcerated female substance users (Lucente, Fals-Stewart, Richards, & Goscha, 2001). Considering more specifically, studies that have recruited female perpetrator samples, Lucente et al.'s (2001) validation Study recruited 359 incarcerated females who were voluntarily enrolled on a 1-year treatment program for substance abuse. This Study found the CTS2 to be highly reliable, and the psychometric qualities were found to be sound as the original factor structure was successfully replicated. Similarly, the CTS2 was found to be highly reliable in a validation Study with 1266 Spanish females, both perpetrators and from the local community, where the original factor structure was replicated, except for the minor injury subscale (Calvete, Corral & Estévez, 2007). Other studies have also shown the CTS2 to be reliable in assessing gender differences in forms of intimate partner aggression related to DV (Hines & Saudino, 2003); and reasons for female perpetration among women who were arrested (Stuart, Moore, Hellmuth, Ramsey & Kahler, 2006).

It is important to note that the CTS2 assesses both minor and severe levels of psychological aggression, physical assault, sexual coercion and injury and so it provides more information about the nature of DV overall, and makes it a more reliable and valid scale (e.g., Newton, Connelly, & Landsverk, 2001; Straus, 2004; Vega & O'Leary, 2007). In addition, another strength of the CTS2 is that the items include gender neutral phrasing (i.e., 'my partner') compared with other tools that use 'him/her' when referring to the perpetrator and victim. This is useful in informing treatment programs, as the CTS2 assesses specific acts of both the perpetrator and victim, the use of the word 'partner' helps determine what tactics were used by whom, and their severity. It must be noted that due to this

characteristic, the CTS2 is one of the only DV tools that considers the DV dyad, and not solely the perpetrator or the victim.

Researchers have, however, noted some limitations to the CTS2. For instance, it does not provide information about the contexts or motives in which the abuse occurred (i.e., whether provoked, random, or used in self-defence; Dekeseredy & Schwartz, 1998). In addition, the usefulness of the CTS2 in providing information about DV perpetration and predictive factors (e.g., childhood abuse, alcohol use) used to provide more information about what could have motivated or influenced the DV, and indeed specific psychological antecedents of the DV perpetration, is somewhat limited. Overall, if we were to consider the CTS2 as a comparable tool to evaluate, and use towards informing the development of the DVPPT, given its extensive use in a variety of DV studies, and the different forms of behaviors it assesses, it falls short in a number of ways: (1) it does not measure any predictors, motives, vulnerability factors or antecedents of DV perpetration; (2) it assesses behavior and its severity, but does not provide information about the perpetrator's or victim's cognitive reasoning for the abuse; (3) it only considers their cognitive and/or emotional negotiation tactics *during* the incident; and (4) it does not provide any individual characteristics or historical information about the perpetrator or victim – and these could be predictors for DV and important in identifying vulnerability to become DV perpetrators.

2.2.2. The Abusive Behavior Inventory (ABI; Shepard & Campbell, 1992)

The ABI was originally developed to assess the physical and psychological abuse of male batterers towards their wives, where responses from both wife batterers and wives who were being or had a history of being battered by their husbands were included. The aim of this tool was initially to help in the evaluation

of male batterer programs, as the developers found that most of the research at the time suggested that males were more likely to cause greater harm toward females than females towards males (e.g., Frieze & Browne, 1989). According to the developers, the choice to focus on specifically psychological and physical abuse within an abusive relationship was grounded in the theoretical framework of the feminist perspective of DV, where control and power were the key motivations for DV (this being one of the theoretical justifications of the current project).

The ABI is a self-report measure administered by health care and other service professionals and researchers. The initial study involved interviewing the male perpetrators already enrolled on a DV perpetrator treatment program and their partners were asked to complete a survey (Zink, Klesges, Levin, & Putnam, 2007).

The ABI comprised of a total of 30 items: 20 items assessing behaviors conceptualised as psychological abuse, specifically, emotional abuse (humiliation or degradation), isolation (restriction of social contact), intimidation (frightened with action or gestures), threats (of harm to self or others), use of male privilege (compliance demanded based on belief of male entitlement), economic abuse (restriction of financial resources); and the remaining 10 items assessed physical abuse (e.g., assessing physical assault). Through these responses, the ABI is able to collect information about the frequency of these behaviors during a 6-month duration. The items were based on behaviors included in the Power and Control Wheel (Zink et al., 2007).

There are very few published studies on the ABI, so the evaluation of its overall reliability and validity is somewhat limited. However, from the original validity sample comprised of 100 males and 78 females, from which the males had

been enrolled in a chemical dependency program. From this Study, the ABI was found to have high internal consistency, as the Cronbach's alpha for the whole sample, across 4 different groupings ranged between .70 to .92. High criterion-related validity was also shown across the four groups.

Another study aimed at identifying a cut-off score for abuse in a clinical setting, compared the ABI to the CTS2 (Zink et al., 2007). In this study the ABI was found to have satisfactory convergent validity and internal consistency and identified two distinct factors, which were physical and psychological abuse. The ABI was also suggested to be as useful as the CTS2 in assessing DV in a health care centre, however, structurally, the ABI does not assess both partner's behaviors simultaneously in the same tool as the CTS2 does. The ability to assess both the perpetrators and victims DV behaviors in the same tool through mirrored/identical items does save time on the administration of the CTS2 as minimal face to face assessment time is needed. Also worth noting about this study is, it included a large proportion of African Americans, which the original study did not include. In terms of evaluating a tool that is able to assess DV in a more diverse sample, in line with the intersectionality approach to DV, this is good evidence for the usability of this tool.

One key limitation is that the original sample used in the development of the ABI was that it consisted of individuals who were being treated for alcohol abuse, which could have been a confounding variable in the study and may have impacted on participant responses. There have not been many validation studies on other samples using this tool, and therefore it is difficult to determine its wider reliability. However, it must be noted that the ABI is a DV attitudinal measure which includes the responses of both males and females, where the role of each gender are

predefined (i.e., male batterers and female victims), which presumably makes it unsuitable to assess psychological and physical abuse among female batterers and male victims of DV. It also focuses on a 6-month window of abuse, which may not be an accurate reflection of the nature of any one abusive relationship, as we know from the ‘cycle of abuse’ (introduced in Chapter 1), that every relationship has varying timelines for the onset of abuse, its duration and intensity.

2.2.3. Inventory of Beliefs about Wife Beating (IBWB; Saunders, Lynch, Grayson & Linz, 1987)

The IBWB is a DV tool originally developed to assess the attitudes and beliefs individuals have about women who are abused/physically harmed by their husbands.

The IBWB consists of 31 items that are divided into five subscales: wife beating is justified; wives gain from beatings; help should be given; offender should be punished; and offender is responsible. In the original validation study of the IBWB, the Rape Myths Acceptance (RMA) Scale (Burt, 1980) was used as this was expected to, and did share similar conceptual beliefs related to DV. For instance, the developers noted that the RMA scale has been shown to predict positive attitudes towards interpersonal violence, sexual aggression and rape proclivity (Sanders et al., 1987). The IBWB is administered by health care and other service professional and researchers.

The authors valued the importance of societal views about DV as further enriching what we know about contributing factors of DV. The original sample comprised of 675 students, 94 residents, 71 male batterer and 70 advocates of

battered women. In the studies involved in the development of the IBWB, it was found to have good construct validity. From the original study, the internal reliability ranged between .83 to .94 among males, and .79 to .88 among females (Stith, Rosen, McCollum, & Thomsen, 2004).

Similarly, in a later Study which recruited a diverse sample of students, nurses, physicians, men entering treatment for abusing women, and women advocates for abused women; all from different ethnicities, countries, and across both genders, the IBWB remained high in construct validity. However, it was shown not to be highly reliable across all subscales (Saunders, Lynch, Grayson, & Linz, 1987).

Unfortunately, to the author's current knowledge, there have not been further validation studies conducted for the IBWB. While this tool appears to be highly valuable in the information that can be gained about societal perceptions of wife beating and DV, and could potentially be used to evaluate DV treatment programs, the psychometric properties suggest it is not a highly reliable measure that can be used with diverse samples.

One notable strength is the malleability of the IBWI to assess views towards abused women cross-culturally, and how these associations have been studied alongside traditional gender role beliefs. This is illustrated in a study which assessed individual's beliefs toward women who are victims of DV and their ambivalent sexist views (i.e., hostile sexism and benevolent sexism), finding that those who endorse DV against women, also hold hostile sexist views (Glick, Sakalli-Ugurlu, Ferreira, & Souza, 2002). Interestingly, this study was conducted in Turkey and Brazil, whereby the IBWI was adapted for the samples, and this demonstrates the adaptability and usability of the tool.

Comparatively, an important limitation of the IBWI is that although it adequately assesses individual's perceptions of women who are victims of DV, it does not provide any indication of the motivating or contributing factors that may explain these views. It is a useful tool when used alongside other measures that assess psychological constructs related to perceptions of female DV victims, but this does add to administrations time. The lack of validation studies also limits the assertions that can be made about its statistical reliability and validity as a DV tool.

2.2.4. The Psychological Maltreatment of Women Inventory (PMWI; Tolman, 1989)

The PMWI was developed with the aim of assessing psychological abuse of male perpetrators towards their female partners. The authors aim was for the PMWI to be used to assess change in DV behaviors among perpetrators enrolled in a treatment program (Tolman, 1989).

The measure comprised of 58 items in total, and had two subscales, (1) '*dominance-isolation*' (example item: 'my partner was jealous or suspicious of my friends; my partner restricted my use of the telephone) and (2) '*emotional-verbal*' (example item: 'my partner blamed me for his problems; my partner told me my feelings were irrational and crazy'). Researchers have stated that the PMWI is sensitive to assessing the roles of power and control on an abusive relationship (Hedin & Janson, 1999), which links to the feminist perspective of DV.

The PMWI is administered through self-report by either researchers or service professionals. It has been used previously alongside the CTS2 and as a substitute for some of the items in the CTS2 (Hines & Douglas, 2011). It has been found to take 20 to 30 minutes to administer (Devoe & Kantor, 2002). Researchers

have also recommended that the PMWI can be used in batterer intervention programs and DV prevention programs (Devoe & Kantor, 2002).

The original sample recruited comprised of male and female members of a DV rehabilitation program, who were either batterers or victims of DV. The majority of participants were not in couples with each other, and was a diverse sample (i.e., from various ethnicities, had different employment statuses, and had different level of education/qualifications). In this Study, the PMWI was shown to be highly reliable, both across the whole sample and for the males and females separately, and across all subscales (O'Leary & Maiuro, 2001).

In a further Study conducted by O'Leary (2001) involving 100 women recruited from agencies (e.g., DV services, social services), that had been cohabiting for at least a year, the PMWI retained its high reliability and validity across both subscales for males and females. Due to the diversity of the original sample, researchers have suggested the PMWI would be best suited to assess DV within therapeutic setting with individuals who have identified themselves as being perpetrators or victims of DV (Borjesson, Aarons & Dunn, 2003). According to the developers, the PMWI has been used in over 25 studies, and has been found to have good face validity and content validity (Tolman, 1989).

A key strength of the PMWI is that it has been found to be comparable to the CTS2 in the behaviors it assesses, and it has the ability to be used/utilized across multiple setting for different purposes (e.g., measure change due to treatment, used in intervention and educational programs), and can be used by researchers and professionals.

However, it must be noted that this DV tool focuses on assessing only psychological abuse, and these constructs are based on the power and control wheel (discussed in chapter 1), which stems from the feminist perspective of DV. Therefore, it is limited in its usability across all DV offenders (e.g., female offenders), and does not consider other aspects of the types of behaviors that are categorised as psychological abuse that are not rooted in feminist ideology.

2.2.5. The Abuse within Intimate Relationships Scale (AIRS; Borjesson, Aarons & Dunn, 2003).

The AIRS is a DV tool that was developed to assess physical and psychological abuse among young adults, also referred to as college students (Borjesson, Aarons & Dunn, 2003). Specifically, to capture these subtle DV behaviors early on in a relationship. The AIRS is a self-report measure administered to young adults or college students by a researcher or professional. The questions ask the participant to indicate to what extent they display certain physical and psychologically abusive behaviors.

The tool assesses psychological abuse through three factors: (1) emotional abuse (e.g., mocking, belittling and ridicule), (2) deception (e.g., betrayal and deception), and (3) verbal abuse (e.g., screaming and ignoring). It measures physical abuse through two factors/subscales: (1) overt violence (e.g., pushing, shoving and throwing objects), and (2) restrictive violence (e.g., grabbing or squeezing). Collectively, across all these subscales, the AIRS was found to be highly reliable, and did suggest that college students may not be too different to other populations.

Specifically, all subscales (overt violence, restrictive violence, emotional abuse, deception behaviors, verbal abuse) were found to be statistically reliable in

a confirmatory factor analysis (Borjesson, Aarons & Dunn, 2003). Gender differences were also explored and were found to be relatively equal across all subscales (Borjesson, Aarons & Dunn, 2003). Unfortunately, to the author's current knowledge there have not been further validation studies of the AIRS, and therefore the evaluation of this tool is limited on the information from the developers.

From the limited information on this tool, and although the developers did not include a desirable responding bias measure, there is still good support for the measure being reliable at assessing psychological and physical forms of DV. By asking individuals to what extent they have engaged in certain behaviors, the results display first hand information about their perceptions of their actions. Another notable strength of this measure is its high reliability and statistical validity among a diverse sample of college students, and its continued reliability when used with adolescents and young adults. Many of the DV tools developed have been designed for male perpetrators who already have a record of offending and/or are already in an intimate adult relationship, commonly a heterosexual marriage. The AIRS demonstrates the value and importance of assessing DV related behaviors among a younger sample, and highlights the presence of these behaviors among young adults and adolescence before an offence has occurred/been reported.

2.2.6. The Propensity for Abusiveness Scale (PAS; Dutton, 1995)

The PAS is a tool developed to assess DV from a female partner's perspective about their male partner's abusiveness.

It comprises of 29 items that made up three factors: (1) Recalled negative parental treatment, (2) Affective lability, and (3) Trauma symptoms. The developers

used the term 'nonreactive' to describe the items, as they did not overtly measure abusiveness, but were empirically related to it (Dutton, Landolt, Starzomski, & Bodnarchuk, 2001). The PAS is a self-report measure that is administered by both researchers and professionals in the healthcare sector, and has a short administration time (Dutton, 1995).

The original sample comprised of 206 batterers and non-violent males, whereby they were asked to respond presenting their partners perspective on the DV. The developers have stated the usefulness of the PAS is in its ability to reliably measure background information such as an individual's style of attachment, temperament and any history of previous traumatic experiences.

This was further supported in a validation Study which showed the PAS to have high predictive validity for abusiveness across a diverse population including clinical outpatients, and homosexual males (Dutton, Landolt, Starzomski & Bodnarchuk, 2001). Another validation Study of the PAS with a sample of male and female university students showed the PAS to have moderate reliability across the whole scale, for each subscales, and among both males and females (Clift, Thomas, & Dutton, 2005).

Another validation study assessed the ability the PAS has to assess the same behaviors on the Power and Control Wheel (Pence & Paymar, 1993), which were coercion, intimidation, emotional abuse, isolation, minimizing, using children, economic abuse, and male privilege (Dutton et al., 2001). In this study with a sample of 44 abusive males, the PAS reliably predicted intimidation, emotional abuse, and male privilege.

Overall, in the immediate validation studies conducted by the authors, the PAS was found to reliably predict abusiveness in an additional sample of

abusive/assaultive males, an additional clinical sample, male college students, and homosexual males (Dutton et al., 2001). More specifically, the authors have stated that across all these samples that differ in age, sexual orientation, socioeconomic status and income, the PAS significantly predicts emotional abuse, dominance isolation, physical abuse and threatening behaviors (Dutton et al., 2001).

In brief, with regards to its application, the PAS is a DV tool which would be very useful in measuring the emotional abuse and predicting physical abuse within a non-offending population (Dutton & Kropp, 2000). Another practical benefit, is not only is this tool relatively short to administer, but it does not require the addition of a social desirability measure to be used alongside it (Dutton et al., 2001), as many DV tools have been found to need. The PAS being designed specifically to assess abusiveness prediction, is a key strength, and places this tool above other tools that generally assess abusiveness. In addition, the diverse samples that have been used in validation studies supports the high reliability and validity of the PAS as a statistically and conceptually valid measure which can be used across the wide range of individuals that are impacted by DV, which is a desirable quality/ability that supports the intersectionality approach to DV.

2.2.7. The Composite Abuse Scale (CAS; Hegarty, Sheehan & Schonfeld, 1999)

Briefly, the original CAS is a DV tool designed to assess the frequency and types of abusive behavior women have experienced in the previous 12 months from the time of responding. The CAS has primarily been used with general practice patients and other clinical sub-groups (e.g., pregnant women) in the UK, Australia, the Netherlands and Canada (Gartland, Hemphill, Hegarty, & Brown, 2011).

The original CAS is comprised of 30-items that assess abusive behaviors categorised as either positive or negative experiences of either form of abusiveness (i.e., physical, emotional, harassment of severe combined abuse). The CAS was revised into a shortened version (CAS_R-SF; Ford-Gilboe et al., 2016), comprising of only 15 items following experts' feedback and secondary data consisting of 6278 Canadian Women. The main revisions included the rewording of some items said to lack clarity; grouping other items that assess the same form of abuse; deleting 3 items that were not conceptualised as abusive in more recent literature (according to the experts). To this end the CAS_R-SF has three subscales that assess physical, sexual and psychological abuse, with additional questions that measure the exposure and frequency of the abuse (Ford-Gilboe et al., 2016). The CAS is commonly administered through a structured interview by a clinical psychologist or another services professional (Radtke et al., 2011). However, the CAS_R-SF is a self-report measure that can be used by researchers and professionals.

Initially, in evaluating the CAS, this tool was found to have high internal reliability and good construct validity across a number of validation studies (e.g., Hegarty, Sheehan, & Schonfeld, 1999; Hegarty, Bush & Sheehan, 2005; Hegarty, Fracgp, Bush, & Sheehan, 2005). In evaluating the CAS_R-SF, it has been found to be equally as reliable as the original CAS, and high internal consistency across all three subscales being above 0.9. In line with this, researchers have stated that the revised CAS reflects existing DV behaviors, and the language used in the questions better frames the context compared to the original version (Ford-Gilboe et al., 2016).

Overall, the CAS and more relevant the CAS_R-SF are DV tools that are short to administer; reliably assess physical, sexual and psychological abuse; have

multiple validation studies across numerous samples; and are comparable to the CTS2. These qualities make the CAS and especially the CAS_R-SF a sound DV tool to consider when developing the current proposed DV tool. The limitations are the reliance on clinical experience, and although the tool provides useful information about abusive experiences, it does not include the perpetrators perspective, motivations or antecedents for the different forms of abuse. It collects valuable information about the experiences a victim has, and how severe these are/have been, however in understanding the attitudes or motivations for why this occurs, both the original CAS and the CAS_R-SF falls short.

2.2.8. Index of Spouse Abuse (ISA; Hudson & McIntosh, 1981)

The ISA is aimed at assessing the physical and non-physical abuse among females who are victims of heterosexual male partners. The ISA is short to administer via interview or self-report, and is written to be accessible to individuals with the literacy level of high school students (Cook, Conrad, Bender & Kaslow, 2003). The ISA is made up of 30 items, whereby 11 items assess physical abuse and 18 measure nonphysical violence (Hudson & McIntosh, 1981).

The original sample comprised of 398 female students and women from a clinical setting and student sample. In this initial developmental study, the ISA was found to have internal reliability above .90 across both subscales among the clinical and student sample (Hudson & McIntosh, 1981). Subsequent research has shown the ISA to have high reliability and construct validity (e.g., Tolman, 1989); and others have strongly criticised the ISA for not including enough items that assess non-physical abuse (e.g., Gondolf, 1987).

Interestingly, a validation Study with African American women, which was aimed at assessing the reliability and validity of the ISA using a new 3 factor

model (non-physical abuse, physical abuse, and controlling behaviors). This Study supported the ISA as being highly reliable with Cronbach's alpha above 0.9 (Cook, Conrad, Bender & Kaslow, 2003), and highlighted the importance of validating a tool with diverse samples (i.e., different ethnicity, low literacy levels).

Subsequently, this further supports the need for DV tools to acknowledge the intersectional perspective of DV during an individual's development.

One noted limitation of the ISA is that not all the physical abuse items assess physical abuse. Instead, three items measure physical abuse (e.g., 'my partner punches me with his fists'); two items assess sexual abuse (e.g., 'my partner makes me perform sex acts that I do not enjoy or like'); the remaining seven items assess threats of physical violence (e.g., 'my partner threatens me with a weapon', 'my partner screams and yells at me'), that may be viewed as psychological abuse (Cook, Conrad, Bender & Kaslow, 2003). Similarly, the items stated to assess nonphysical violence did not all assess what would conceptually be defined as nonphysical violence, but more psychological abuse (Cook, Conrad, Bender & Kaslow, 2003). Another critique is that the ISA items were based primarily on women's experiences (Tolman, 1989).

Overall, the ISA is a beneficial tool as it is quick and easy to administer, assesses DV relevant constructs (i.e., physical abuse and nonphysical violence), and is accessible to individuals with low literacy abilities (Cook et al., 2003).

However, its reliability to assess physical abuse and nonphysical violence appears not to be consistent across different samples, and additional subscales have been identified in further studies (Cook et al., 2003). For instance, Cook et al. (2003), identified sexual, physical and psychological abuse and controlling behaviors.

Lastly, the ISA does not consider the perpetrators perspective not has used any

information from DV perpetrators in its development. It is not clear what the contributing factors are or motivations could be for these behaviors. The items are also phrased for male perpetrators and female victims, which is in line with the feminist's perspective of DV.

2.2.9. Summary of the evaluation of attitudinal and behavioral measures

From the attitudinal measures discussed above, it is clear that their contribution to the field of DV remains undisputed, and their role in enhancing our understanding of DV behaviors and DV attitudes is very important. With this in mind, we need to consider (1) their ability to provide information about how individuals form attitudes towards DV perpetration; (2) their psychometric properties (i.e., internal consistency, construct validity); and (3) their relationship and assessment to behaviors and attitudes towards key predictors of DV perpetration.

To this end, the previously discussed attitudinal DV tools have been found to have the following limitations in addressing these three points. These are, many of the measures have been: (1) developed to be used **with a specific population** (e.g., male batterers of female spouse who are enrolled on a DV rehabilitation program); (2) developed **using a clinical sample** and have not been statistically validated across a more diverse sample; (3) lack rigorous **psychometric testing** and qualities (e.g., the factor structure of the CTS2 is unclear according to Cascardi, Avery-Leaf, O'Leary and Smith Slep, (1999); the convergent and discriminant validity of tools); (4) assess male perpetrators and do not assess **female perpetrators** of heterosexual and/or homosexual DV (i.e., not gender neutral); and (5) only focus on one or two **specific forms of DV**.

From this evaluation of these selected attitudinal and behavior measures, there are a number of valuable points that are useful in informing the development of the proposed DV tool (i.e., the DVPPT). Firstly, considering the CTS2, this behavioral measure (1) assesses more than one form of DV behavior in a single tool; (2) considers the dyad, as responses are recorded for the victim and perpetrator through mirrored items; (3) includes gender neutral items (i.e., use of ‘your partner’); (4) highlights the need for a tool to gather contextual information to help explain DV behaviors, as the CTS2 simply measures the presence and severity of DV tactics/behaviors used, but does not provide any information about the perpetrators motivations or background factors.

Next, the ABI has also included responses from both genders, however their roles are predefined (i.e., male perpetrators and female victims), which is based on the feminist perspective of DV. The ABI has shown how limiting a tool can be without the inclusion of validation studies with diverse samples, as the ABI has limited validation studies and the original sample were enrolled on a substance abuse treatment program. Lastly, the ABI has a set time frame of 6 months for the participants to consider/reflect back on when completing the tool, which may restrict the nature of the responses given as we know, from the Cycle Theory of Violence (Walker, 1980), that the abuse/violence cycle can take as little as a few minutes to as long as a few years.

Following the ABI, the evaluation of the PWMI has highlighted the benefits of a tool that is able to be reliably used with samples in different settings and for a variety of purposes (e.g., use in interventions and education programs). The PWMI (along with the CAS and the CAS_R-SF) was also found to be comparable with the

CTS2 which suggests it, and the CAS/CAS_R-SF, are measures that is conceptually reliable and taps into DV behaviors. Lastly, the PWMI has also demonstrated the importance of validation studies, not only across numerous samples, but taking into consideration how the tool performs with specifically males and females, in line with statistical analysis. In this quality, the IBWB falls short, as there is no evidence of further validation studies and therefore its reliability, validity and usability is difficult to determine. However, what was taken from the IBWB was that a notable cause of invalidity in many attitudinal scales is they tend to be susceptible to social desirable responding, despite having demonstrated high face validity (Saunders et al., 1987). Interestingly, Thomas and Dutton (2004) pointed out social desirability as being a confound in many studies that recruited specifically batterer/perpetrator samples and relied on self-report.

While social desirable responding is a concern, the evaluation of the PAS showed that if this is considered in the development of the tools, then a social desirable measure is not needed. The PAS also demonstrated the possibility of including questions about the perpetrators background (e.g., attachment), while still maintaining a short administration time, and being statistically reliable and valid.

Following this, the AIRS which was originally developed with a sample of college students and adolescents, highlighted the benefits of recruiting a young, diverse population to develop and validate a DV tool. One strength being that the results here suggested that young adults may not be as dissimilar in their attitudes towards DV as people once thought.

Lastly, the ISA was a valuable tool to evaluate as it highlighted the problems that may arise regarding reliability, validity and usability, when items do not accurately match the conceptual understanding/interpretation of behaviors (i.e., physical violence items not all assessing physical violence). It did also highlight that in order to widen the usability of a DV tool in line with the intersectional approach to DV, making it accessible to those with lower literacy levels is one way of achieving this.

3. Overall summary

In summary, this Chapter provides a targeted discussion of existing prediction tools developed to assess risk of DV, in particular, DV perpetration and related predictive factors, and those developed to assess DV attitudes and behaviors towards perpetration. While the risk assessments were discussed to highlight their importance and role as prediction tools within the area of DV, and providing an insight into certain aspects with regards to identifying and assessing DV predictors (e.g., limitations of a tools usability when clinical training is needed to administer and interpret it). Whereas the attitudinal and behavioral measures were evaluated to enhance our understanding of their usefulness, psychometric properties, reliability and validity, in informing the development of the DVPPT. It is important to note that previous work in evaluating the way in which offenders and non-offenders complete attitudinal measures must also be taken into consideration as research as shown that across these two groups, there are very little differences picked up (Eckhardt & Dye, 2000), and therefore, the use of other measures, such as behavioral or proclivity would be beneficial (as is this aim of the current proposed tool).

Based on previous research and reviews of these tools, it has been suggested that one of the major problems is their **lack of validation**, particularly with more diverse populations (e.g., Bowen, 2011), and many have not undergone rigorous statistical analysis needed to ensure highly reliable and valid psychometric properties. With limited validation, the reliability and validity of these tools is difficult to accurately determine. Also, many of the attitudinal and behavioral measures used the CTS2 in their validation studies, whereby they justified the CTS2 as being a comparative scale that assesses DV behaviors. Therefore, not only will the development stages of the DVPPT include validation studies, but the CTS2 will be one of the tools included in the follow-up validation study. Also, in order to improve the reliability of analysis and recruit from a diverse sample, the DVPPT will be a self-report measure that does not need any clinical training to administer or score, and is not overly long.

Some researchers have also noted that most of these tools have been based on **DV literature over three decades old** (Hilton et al., 2008), and during a time when male perpetrators in heterosexual relationships were the main focus. Likewise, other researchers suggest that these tools do not fully account for the social context relevant today or for the developments in the DV literature since then (i.e., the awareness of female perpetrators or offenders in same-sex relationships; Bowen, 2011). This makes sense as, according to Cook et al., (2003), tools are usually developed based on the theories at the time and most of the early theories used to explain DV were mainly focussed on physical and psychological DV. This also explains why many of the tools evaluated were based on the behaviors included in the Power and Control Wheel, which was rooted in the feminist perspective of DV. However, it is clear, that in order for tools to be effective in modern society,

they should be based on modern/recent theories explain DV, such as considering the intersectionality perspective, and the nested ecological explanations of DV. For this reason, the DVPPT construction will consider more recent contributing factors and approaches, such as including gender neutral items, and predictive factors based on recent literature (discussed in the next chapter).

In addition, tools, such as the Abusive Behavior Inventory, have been developed to specifically assess ‘wife’ assault, which is not wholly representative of perpetrators’ prior abusive history. For instance, the definition of DV used by many who develop tools is very limited in the behavior it covers, and tends to rely solely on official police recorded incidents of physical abuse (not including previous criminal charges). Thus, such a definition can severely limit the amount of information gained about the offenders’ risk/perceived risk, offending behaviors and attitudes towards DV, and is unlikely to account for other behavior or triggers that lead to offending. It also does not assess other forms of DV, such as psychological abuse, or DV by other types of offenders (e.g., female perpetrators). From this knowledge, the DVPPT will include the assessment of four core forms of DV (i.e., physical, sexual, psychological and coercive control); and will not be reliant on police records of previous offending but be applicable to all individuals whether they have committed a first offence or not.

Overall, following the evaluation of existing tools developed for DV offenders, this Chapter outlined the need for a DV tool that would address some of these limitations, and proposed the development of a DV tool that would assess attitudes towards key predictors of DV perpetration and DV proclivity (i.e. the DVPPT). To this end, the next Chapter of this thesis discusses and justifies DV

proclivity and selected DV predictors to be included in the DVPPT, and presents the initial studies conducted during its development.

Chapter Three

The Development of the Domestic Violence Proclivity and Predictors Tool (DVPPT) encompassing the assessment of DV Proclivity, Childhood Exposure to DV, selected DV Implicit Theories and Angry Rumination.

1. Why there is a need for a DV tool that measures DV proclivity and developmental predictors

Following the evaluation of selected DV tools in the previous Chapter, this thesis proposes the need to develop a tool that assesses both proclivity and predictors (specifically developmental factors) of DV. A single tool that could assess attitudes towards DV perpetration through key predictors and DV proclivity would make a strong contribution to research into DV. The utility of the attitudinal DV tool is that it would have the ability to reliably assess developmental predictors that may be immediate antecedents to DV. These could be influenced by situational triggers and learned behaviors that may have been learnt during childhood through the witnessing of parental/intimate partner DV.

In addition, by assessing DV proclivity, this new tool would be able to identify the characteristics of individuals who hold similar attitudes and who have a propensity towards behavior associated with DV offending. For instance, if findings identify an individual who shares similarities with DV offenders, (i.e., the way they think about DV and their interpretation and perception of interactions with their partners; their justification of DV as acceptable), and who does not offend, may help us to identify protective factors useful for interventions. They would also be useful in designing informed preventative strategies (e.g., in schools). Findings will

also be useful in developing DV theory and in identifying more of the specific needs of DV offenders.

The author proposes the formulation of a tool that assesses both DV proclivity and attitudes towards specific developmental predictors of DV (discussed in the previous Chapter). This new tool, the Domestic Violence Proclivity and Predictors Tool (DVPPT) has two sections, one which assesses DV proclivity and related implicit theories, and the other which includes the other two developmental predictors (i.e., angry rumination and childhood exposure to DV). The DV proclivity scale section of the tool could be used to: (1) identify the likelihood/behavioral propensity towards engaging in DV; (2) provide an indication of the specific offense-supportive attitudes towards DV offending behavior; (3) enable researchers to identify the inhibitory mechanisms where DV proclivities are high; (4) contribute to the existing theoretical explanations for DV perpetration (see Chapter 1) by identifying the immediate antecedents of DV events; and (5) be able to be used to assess DV proclivity among both males and females.

2. DV predictive factors that need to be assessed

As noted in Chapter 2 none of the existing DV instruments assess the immediate antecedents and cognitive processes that contribute to DV perpetration and recidivism. For example, using the predictive qualities of the SARA-V3 (Kropp & Hart, 2015), one of the most researched DV tools to date, it has been shown to be a highly reliable tool, with a strong focus on static factors, but does not assess any cognitive psychological processes that may have directly influenced/triggered the offending behavior or tap into attitudes related to perpetration. Neither does it assess how these processes could have developed over time. While these functions

were not intended to be part of the SARA-V3's role, it does highlight the importance of other tool functions that the area of DV would benefit from.

In order to gain a full understanding about the reasons why an individual would engage in DV behavior, through a self-report attitudinal tool, it would be beneficial to assess DV perpetrators': (1) Cognitive processes; (2) Justifications for their actions; (3) Their processing of interactions in intimate relationships; and (4) How their previous experiences, particularly those in childhood, relate to their emotional, cognitive and social development (as discussed in Chapter 1). The current research builds on the reliability, effectiveness and predictive validity of existing DV tools through the development of the DV Proclivity and Predictors Tool (DVPPT). The DVPPT considers how childhood exposure to DV may impact individual's attitudes towards DV perpetration in adulthood, and how cognitive, social and behavioral developmental processes and emotional regulation strategies may feed in to their perceptions of DV events. As a result, the DVPPT is a self-report attitudinal measure developed specifically to assess: (1) **Childhood exposure to DV**; (2) **Angry rumination (specifically towards intimate partners)**; (3) **DV proclivity and selected DV offending related implicit theories** (i.e., '*partner to blame*'; '*partner as object*'; '*violence/DV behavior is acceptable*'; '*relationship entitlement*'; and '*need for control*'). To this end, this Chapter presents: (1) the justifications for the inclusion of these factors and what they add to the field of DV and to our knowledge of DV perpetration attitudes and proclivity; and (2) the first two studies conducted in the development of the DVPPT.

3. Why DV proclivity is important to assess

Recent research has demonstrated that attitudes or beliefs that support offending behavior are good predictors of offending/undesirable behavior (Ward,

Keown & Gannon, 2007), and a proclivity scale is a self-report measure used to assess an individual's behavioral propensity towards "undesirable or potentially criminal behavior" (Gannon & Barrowcliffe, 2012, p. 4). Previous research has found proclivity scales useful in assessing and identifying unconvicted individuals who might share similar attitudes with convicted offenders. For example, certain people may have attitudes and beliefs similar to those of sexual offenders such as rapists (e.g., Bohner et al., 1998) and child molesters (Gannon & O'Connor, 2011), but they may never have committed these crimes. This is important as it could provide useful information about the psychological processes that differentiate offenders from non-offenders who share similar attitudes and beliefs. It could also add to existing knowledge about any inhibitory mechanisms that non-offenders use to avoid offending, that offenders do not. For DV, such information could better inform preventative strategies designed to reduce DV offending. Other researchers have also noted that proclivity scales are useful for identifying factors (e.g., risk factors, behavioral tendencies) that may influence specific offending behavior but which have not been previously identified or included in current assessments (Bohner, Siebler & Schmelcher, 2006).

The construction of proclivity scales usually includes a short vignette and a question that measures the likelihood of an individual engaging in the behavior described in the vignette. By using a vignette, researchers have chosen to adopt a method called motor imagery (Jeannerod & Frak, 1999). This requires an individual to actively imagine themselves in the position of the perpetrator or protagonist in the vignette, which in turn activates selected cognitive processes that are similar to those of offenders who hold offense-supportive attitudes and beliefs. An example of a proclivity question used by researchers is: "*In this situation, would you have done*

the same?” (e.g., Gannon & O’Connor, 2011), to which the responses are indicated on a 5-point Likert-type scale ranging from 1 (*not at all*) to 5 (*very much*).

Researchers who have used this design have developed and validated proclivity scales that show high internal reliability, (e.g., the Firesetting Proclivity Scale; Gannon & Barrowcliffe, 2012). It is important to note that the specific offending behavior is not actually stated in the vignettes. For example, the word ‘rape’ is not used in the Rape Proclivity Scale (Bohner et al., 1998). This is to address the problem of socially desirable responding, which is inherent in self-report measures assessing behavior and attitudes regarding undesirable, taboo or criminal behavior (Chiroro, Bohner, Viki & Jarvis, 2004).

In addition, given the hypothetical nature of proclivity designs (e.g., using vignettes), researchers have suggested using the proclivity measure with other theoretically related constructs to support inferences made by the researcher (Bohner et al., 2006). For example, an ‘interest’ or ‘enjoyment propensity’ measure can be used alongside the proclivity item, to provide more information about other factors that link to the behavior being assessed. For instance, this approach has been used in both the Rape Proclivity Scale (Bohner et al., 1998), and the Firesetting Proclivity Scale (Gannon & Barrowcliffe, 2012), which included ‘enjoyment propensity’ (e.g., “*How much would you have enjoyed getting your way in this situation?*”) because previous research suggests that individuals who engage in firesetting do so because they are excited by fire, and therefore this could be a risk factor for firesetting (e.g., Dicken et al., 2009).

In sum, the DVPPT was developed to include a *proclivity measure* in order to: **(1)** assess whether members of the general public share similar attitudes and beliefs about DV offending; **(2)** assess whether individuals that are either

undetected or non DV offenders, share these attitudes and views – unknowingly; (3) identify any predictive/risk factors that exist among the general public but have not been included in current DV tools; and (4) explore the relationship between a proclivity towards DV and the DV implicit theories individuals hold, to gain a fuller understanding of DV proclivity and perpetration.

3.1. Why the selected DV predictors are important to assess

3.1.1. DV Exposure in Childhood in a DV tool

As discussed in Chapter 2, one of the main contributing factors of DV perpetration in adulthood is exposure to DV during childhood. The influence of childhood abuse on future offending has been widely researched in developmental, social and forensic psychology fields (e.g., Carpenter & Stacks, 2009; Murrell et al., 2007; Wolfe et al., 2003). Researchers have previously considered the role of an individual directly experiencing physical abuse during childhood in promoting a higher tendency to engage in physical violence in adulthood, and increased tendencies to be aggressive generally (Kernsmith 2006; Murrell et al., 2007). Similarly, some individuals who have reported witnessing DV/inter-parental violence or abuse have a history of long-term trauma, depression, generalised violence and intimate partner violence in adulthood (e.g., Ehrensaft et al., 2003). From these observations, researchers have focused on how exposure to other forms of DV could impact the development of an individual (i.e., their social, cognitive, and behavioral adjustment) in adulthood (e.g., Wolfe et al., 2003).

Across previous studies investigating the association between childhood abuse and exposure to DV, and DV perpetration in adulthood, there have been methodological inconsistencies and heterogeneity in terms of the measures, definitions and conceptualisations of abusive experiences. For example, a meta-

analysis conducted on the effects of childhood exposure to DV, noted a lot of variability in how interparental violence was defined; to what extent it occurred; how it happened; and details about the extent in which the children were involved in abusive experiences (Wolfe et al., 2003). This is important as the *nature* of the exposure may provide useful information about how individuals interpret and process their experiences. Given that past research has assessed the exposure to DV in childhood as a “uniform experience” (Wolfe et al., 2003, p. 177), and has overlooked the more intricate details of the *nature* of the exposure, (i.e., how involved the children were), and ignored their *interpretation* of the experiences, it means that previous research is somewhat limited in what it can tell us about childhood experiences of DV.

However, overall, very few studies have considered the nature of DV exposure during childhood and how this may vary. For example, Edleson and colleagues (2003), found that in a sample of 114 female victims of DV, 25% of their children had been physically involved in the DV incident, and over 50% had verbally intervened (Wolfe et al., 2003). Given this variability, it is important to question how the development/adjustment of these two groups of children might differ in terms of subsequent DV behavior and attitudes towards DV, since their experiences of involvement in the DV incidents are not homogeneous. The current research addressed this by including a measure that assesses five different ways that a child could be exposed to DV (e.g., school, family). This is the ‘Child’s Exposure to Domestic Violence Scale (CEDV; Edleson, Shin & Armendariz, 2008). The design and justification for using this measure will be discussed later in this Chapter.

Other researchers have conducted retrospective studies on convicted male offenders and found associations between those that reported being physically abused during childhood and being more generally violent and aggressive in adulthood. This is consistent with previous literature (e.g., Holtzworth-Munroe et al., 2000). Also, the severity and frequency of exposure to childhood abuse related to the extent to which individuals committed DV offences in adulthood has been reported (e.g., Murrell et al., 2007). However, those who witnessed DV *and* were abused during childhood committed more severe offenses than those who had either *only* witnessed the abuse or, had *only* been abused and not witnessed other family members being abused (e.g., Kitzmann, Gaylord, Holt, & Kenny, 2003). In addition, the psychopathology among convicted offenders was high if they disclosed a history of childhood abuse compared to those who had not. The most common psychopathologies identified were antisocial, borderline and depressive personality disorders (Wolfe et al., 2003).

Retrospective studies with DV offenders, although useful in gaining information about prevalent risk factors for DV offending, such as childhood abuse, cannot account for individuals who have not been convicted but engage in DV behavior, or those who have a tendency to share similar attitudes and beliefs of DV offenders, but who do not offend. Information gained from individuals who fall into either of the above two categories would be extremely useful (as noted above) in improving the understanding of how the exposure to DV relates to adult relationship perceptions and which inhibitory mechanisms prevent individuals from acting on DV offense-supportive attitudes.

In sum, the key reasons for assessing exposure to DV during childhood in the current tool were: **(1)** exposure to DV during childhood is a prevalent predictive

factor of DV perpetration; (2) information gained about the nature of exposure to DV in childhood would enrich our understanding of how this influences childhood development and adjustment into adulthood (i.e., behavioral, cognitive, social); (3) to provide more information/evidence for the Nested Ecological Theory (discussed in Chapter 1), which is the most widely referred to perspective for explaining DV perpetration (Schumacher et al., 2001); and (4) how those exposed to DV during childhood processed the abuse, their subsequent behavior towards their peers, and their formation of attitudes and beliefs which are either DV offense-supportive or not.

3.1.2. Implicit Theories (ITs) and DV perpetration

As noted in Chapter 1, researchers have found that some offenders hold cognitive distortions/maladaptive beliefs, called Implicit Theories (ITs; Dempsey & Day, 2011) that have formed during early development. Some offenders use ITs to legitimize their offending behavior, when later questioned about their motivations or interpretation of their criminal actions. For example, for sexual offenders, it has been suggested that ITs are the product of an individual experiencing and making sense of a “series of adversarial childhood events, such as sexual or physical abuse” (Gannon, Hoare, Rose & Parrett, 2012, p. 210). As a result, when these distorted beliefs are used to justify and/or explain offending behavior, they are referred to as *offence-supportive cognitions* (Gannon & Polaschek, 2006). To illustrate this, for example, the most common ITs that have been used to describe the actions of male sexual offenders are namely ‘*children as sexual objects*’, ‘*dangerous world*’, ‘*uncontrollability*’, ‘*entitlement*’, and ‘*nature of harm*’ (Ward & Keenan, 1999). They have also been described as unconscious belief systems that influence the way in which information from the environment is interpreted, therefore forming

distorted interpretations and beliefs about themselves; others involved in social interactions; and the world (Dempsey & Day, 2011). From this, some researchers have noted the rehabilitation and treatment value of utilising ITs (e.g., Ward, 2002). Put simply, if the way in which individuals have interpreted social interactions is brought to their conscious processing/awareness, then this opens up the possibility of restructuring and reformulating distorted cognitions and belief systems in a more prosocial direction.

Within the last decade, researchers have suggested types of ITs held by DV offenders based on previous literature. As outlined in Chapter 1, the main ITs suggested to be held by male DV offenders include: '*violence is acceptable*', '*women are to blame/at fault*', '*out of control*', '*need for control/man in control*', '*women are objects/women are owned*', '*entitlement/respect*', '*uncontrollable sexuality*', '*real man*', '*win or lose*', and '*nature of harm*' (Gilchrist, 2009). Other researchers, who have conducted research with male DV offenders have noted '*abandonment/rejection*', '*need for control*' and '*male sex drive is uncontrollable/policing partner*' as additional ITs (Dempsey & Day, 2011; Weldon & Gilchrist, 2012). The only Study to date, to the author's current knowledge, that involved the assessment of ITs held by both male and female offenders, identified the following ITs: '*opposite sex is dangerous*', '*normalization of relationship violence*', '*normalization of violence*', '*it's not my fault*', '*relationship entitlement*', '*general entitlement*', '*I am the man*' and; the most prevalent for female offenders was '*relationship entitlement*' (Pornari et al., 2013).

As yet, to the author's current knowledge, these ITs have not been empirically tested, nor used in a Study that has involved the assessment of non-offenders, some of whom may be undetected/not apprehended offenders and who

share similar ‘offence-supportive’ beliefs and attitudes to those of DV offenders. Therefore, one of the main objectives of the current research was to assess five common ITs on a community-based sample in relation to four prevalent forms of DV (i.e., ‘physical violence’, ‘sexual assault’, ‘financial abuse and controlling behavior’ and ‘emotional/psychological abuse’). This provides information about whether these ITs are held by individuals who may also indicate DV proclivity. It would also paint a more in-depth picture of which ITs are related to which forms of DV. Therefore, the four scenarios that are included in the proclivity component of the DVPPT depicts ‘*physical violence*’, ‘*sexual assault*’, ‘*financial abuse and controlling behavior*’ and ‘*emotional/psychological abuse*’ to assess ITs of: ‘*violence is acceptable*’, ‘*women are to blame/at fault*’, ‘*need for control/man in control*’, ‘*women are objects/women are owned*’, and ‘*relationship entitlement/respect*’. However, to accommodate the dynamic of a couple/dyad (i.e., partner) and to make them even more applicable in a DV setting they were revised to: ‘*violence/DV behavior is acceptable*’, ‘*partner blame*’, ‘*partner as object*’, ‘*need for control*’, and ‘*relationship entitlement*’. These revisions will be outlined in more detail later in this Chapter.

It is anticipated that given the variance in individual differences among convicted DV offenders, by matching, as much as possible, specific ITs to specific forms of DV offending behavior, identified differences could be grouped and attributed to a DV offender typology. Considering the DV offender subtypes found by Johnson et al. (2006), namely; low pathology, borderline, narcissistic, and antisocial personality traits, it could be that each subgroup could hold slightly different ITs across the four forms of DV. For instance, individuals who were in the ‘low pathology’ subtype characterised by ‘low interpersonal dependency, moderate

macho attitudes, and moderate levels of narcissism' (Johnson et al., 2006, p. 1281), would probably be more likely to hold the '*need for control*', and '*entitlement*' ITs for DV proclivity towards '*financial abuse and controlling behavior*'. Although this is a mere speculation, such trends in behavior, cognitions and characteristics could be made with closer deliberation, wider sampling and using other typologies and offender subtypes. This subtype was used in this illustration as it has been suggested to be similar to the subtype of 'family only' offender from Holtzworth-Munroe and Stuart's (1994) threefold DV offender typology (Johnson et al., 2006).

Similarly, the inclusion of DV proclivity and ITs could shed some light on how prevalent the traditional feminists' explanations for DV perpetration are. For instance, according to the feminist perspective, DV is a form of male dominance and a way in which males assert power over females to maintain a level of hierarchy (e.g., Ali & Naylor, 2013a). Consequently, it could be that individuals who hold these attitudes and beliefs, would be more likely to report proclivity towards sexual and/or physical DV and hold the ITs of '*need for control*', '*partner to blame*' and '*relationship entitlement*' than those who do not share these beliefs.

Therefore, more generally, the rationale for incorporating ITs into the newly developed DV tool generally was to: **(1)** empirically assess the presence of five ITs found to be held by DV offenders in a non-offending population; **(2)** assess whether individuals who report DV proclivity would also hold DV-related ITs (i.e., share similar attitudes with DV perpetrators); **(3)** determine whether there could be a link between exposure to DV during childhood and the forms of ITs held by individuals.

3.1.3. Angry Rumination in relation to DV perpetration

As stated in Chapter 1, angry rumination (AR) is the "unintentional and recurrent cognitive process that emerges during and continues after an episode of

anger is experienced” (Sukhodolsky et al., 2001, p.690). Simply put, this is when an individual constantly thinks over and over again about an incident that has made them angry. In addition, if a person has a tendency to engage in AR, they are more likely to remain in this angry state for longer than those who do not ruminate, as AR may prolong aggressive priming (e.g., Vasquez et al., 2012).

The initial motivation for exploring AR in relation to DV was because historically, many instances of DV have been attributed to one partner lashing out in anger, and displaying verbal and/or physical aggression towards their partner (e.g., Flynn & Graham, 2010). Recently, researchers have also found associations between aggressive behavior and AR, particularly in individuals who have higher levels of generalised trait aggression (e.g., Pedersen et al., 2011).

When applying these notable behavioral trends to the context of DV, it can be speculated that individuals who have high generalised trait aggression would be more likely to be violent and aggressive toward others generally, as well as towards/in relation to their partners. However, this explanation does not account for individuals who are *only* aggressive towards their partners, as supported by the ‘family-only’ subgroup classified by Holtzworth-Munroe and Stuart’s (1994) DV offender typology (as outlined in Chapter 1). Linked to AR is a behavioral construct called ‘triggered displaced aggression’ (Denson et al., 2006; Vasquez et al., 2013). This form of aggression occurs when a person has been provoked in a prior incident, and then reacts aggressively towards an innocent person who presents a ‘trigger’; usually something inconsequential that evokes the protagonist’s anger already induced by the previous event. In the current research, relating this concept to DV, the innocent victim of such aggression is an intimate partner.

Considering also that ruminative tendencies have been described as an “emotion-regulation strategy” (De Lissnyder et al., 2012, p.519), it is possible that individuals who have been exposed to DV in childhood may develop, and engage in, AR in order to process their abusive experiences. This is also linked to evidence that suggests that childhood abuse is related to poor emotional regulation skills, as discussed in Chapter 1. For example, an individual who has developed AR tendencies during childhood would be more likely to engage in AR following an event that they could not understand, or process emotionally, such as a DV confrontation. In this instance, through engaging in AR to try to understand why the abusive incident occurred, what caused it, or how to retaliate/react, this individual would be likely to stay angry for a prolonged period and the possibility of responding aggressively when they perceive they have been provoked by an innocent partner/family member, as an adult, would be heightened.

In addition to this, the effect of ITs, as discussed above, may influence AR and any subsequent aggression towards an intimate partner. Also, given that ITs may be a form of distorted cognitions, if an individual holds a specific IT that links to a specific form of DV, and the individual has a tendency to engage in AR, then this could increase the possibility of predicting the motivations for a specific incident of DV. For instance, if a person held the IT ‘*violence is acceptable*’, and engages in AR following a provocative or anger-inducing incident (from a third party or their partner), there is a potentially higher chance that this person would engage in physical and/sexual violence/aggression towards their partner. Likewise, this pattern of behavior is very similar to that of displaced aggression (discussed in Chapter 1) since some individuals who have been angered or provoked in a previous event and have not been able to retaliate against their provoker, may

displace their aggression on to their partner at a later stage, in the presence or absence of a ‘trigger’.

Therefore, considering the above, the main reasons AR was included in the development of the DVPPT was to: **(1)** assess the reliability of AR as a new predictive factor for DV perpetration, and increase the predictive power of the tool in assessing DV proclivity and perpetration; **(2)** assess the different AR processes/purposes (e.g., ‘thoughts of revenge’, ‘angry memories’) in relation to the four different forms of DV assessed, and their relationship to DV proclivity; **(3)** empirically assess the association between AR and other predictive factors of DV perpetration and proclivity in a general sample. It is important to highlight that this thesis is primarily interested in an individual’s tendency to engage in angry rumination towards their intimate partner *specifically* (i.e., their involvement in the anger-inducing incident, and their subsequent victimisation by their partner).

3.2. Construction of the DVPPT to assess DV

The full DVPPT should, based on the arguments presented in this thesis so far, assess childhood exposure to DV; angry rumination; and the proclivity, enjoyment and implicit theories of four key forms of DV. This section presents the steps taken to develop the proclivity element (including the enjoyment propensity) of the DVPPT. Following this, subsequent sections will discuss the other sections of the DVPPT (i.e., childhood exposure to DV, angry rumination and implicit theories). It is important to note that, to the author’s current knowledge, the DVPPT is the only tool that includes these constructs in a single measure, and is the first attempt at developing a DV tool to assess DV proclivity.

The development of the proclivity scale component of the DVPPT was guided by Bohner et al.’s (1998) Rape Proclivity Scale, together with theoretical

knowledge about common DV behavior from past research. It was initially decided that the DVPPT would include the most prevalent forms of DV identified in the literature (i.e., physical violence and sexual abuse) as well as forms of DV that have only recently started to gain momentum in research (e.g., controlling/threatening behavior). To this end, the four main forms of DV included were: **(1) Financial abuse/Controlling behavior; (2) Sexual assault/abuse; (3) Psychological/Emotional abuse; and (4) Physical violence/abuse.**

The first step in developing the proclivity scale component of the DVPPT was to identify core behaviors that represented each of these four forms of DV from previous research, and construct scenarios that: **(1)** were gender neutral (e.g., ‘my partner’ not ‘wife’); **(2)** depicted DV behavior related to the specific forms of DV; **(3)** were consistent with the definition of the specific form of DV depicted (i.e., according to legislation used by the CJS); and **(4)** were phrased in a way that an individual without strong DV beliefs or attitudes could relate to when imagining themselves and their partners in the scenario, but which also included an element/action that would be favoured/identified as acceptable by individuals who shared beliefs similar to DV offenders. For each of these vignettes participants were asked to imagine themselves and their partner in each situation presented.

Following the construction of four separate vignettes to fulfil the above criteria, a question assessing proclivity (i.e., “*In this situation, could you see yourself doing the same?*”) was inserted after each scenario, followed by a 5-point Likert-type scale from 1 (‘*Definitely not*’) to 5 (‘*Definitely*’). After this, a question assessing the level to which an individual would enjoy behaving like the main protagonist in each scenario was asked (i.e., “*In this situation, how much would you have enjoyed getting your way?*”), followed by a 5-point Likert-type scale from 1

(“*Would not enjoy it at all*”) to 5 (“*Would greatly enjoy it*”). By adding these two questions to each scenario it would be possible to calculate: (1) the likelihood/behavioral propensity an individual has towards each form of DV; (2) the likelihood/behavioral propensity an individual has towards engaging generally in DV; and (3) the level of enjoyment an individual would derive if they were to act in the same way as the main protagonist in the scenario.

Following these two questions (i.e., proclivity and enjoyment propensity), five questions followed that assessed to what extent the participants endorsed the selected implicit theories (i.e., ‘*violence/DV behavior is acceptable*’, ‘*partner blame*’, ‘*partner as object*’, ‘*need for control*’, and ‘*relationship entitlement*’). Each of these IT’s asked the participant to consider the above situation, and after reading it as if it was themselves and their intimate partner, respond on corresponding Likert-type scales. For example, for the ‘*violence/DV behavior is acceptable*’ IT, the response measure ranged from 1 (“*very much unacceptable*”) to 5 (“*very much acceptable*”). The questions and response measures for the other four IT’s are discussed in detail in section 4.1 ‘The Development of the DVPPT’.

4. The developmental stages of the DVPPT

To develop the DVPPT, first, a battery of questionnaires was compiled (see Appendix A.1). These assessed: (1) **Angry Rumination**; (2) **Angry Rumination** in the context of an intimate relationship – referred to as **Relationship Angry Rumination**, in this thesis; (3) **Childhood Exposure to Domestic Violence**; (4) **Domestic Violence Proclivity and Enjoyment propensity**; and (5) Five specific **Implicit Theories** associated with domestic abuse perpetration (i.e.,

'violence/behavior is acceptable', 'partner blame', 'partner as object', 'need for control', and 'relationship entitlement'.

Method - Pilot Study

4.1. The Development of the DVPPT

The Anger Rumination Scale (AR; Sukhodolsky, Golub, & Cromwell, 2001)

The AR scale is a 19-item questionnaire that measures general angry ruminative tendencies following previous anger-provoking experiences. It is the only measure that assesses angry rumination, to the author's current knowledge, and has been found to be highly reliable ($r = .77$; Sukhodolsky et al., 2001). The AR has four sub-scales: **angry afterthoughts** (6 items; e.g., "*Memories of even minor annoyances bother me for a while*"), **thoughts of revenge** (4 items; e.g., "*When someone makes me angry I can't stop thinking about how to get back at this person*"), **angry memories** (5 items; e.g., "*I think about certain events from a long time ago and they still make me angry*"), and **understanding the causes** (4 items; e.g., "*When someone provokes me, I keep wondering why this should have happened to me*"). Participants indicated how much each statement corresponded with their behavior on a 4-point Likert-type scale ranging from 1 (*'almost never'*) to 7 (*'almost always'*).

The Relationship Anger Rumination Scale (RAR; revised and developed for this thesis)

The RAR scale was designed based on the AR scale and was developed to be a more accurate assessment of AR in a relationship context. That is, the RAR is used to measure angry rumination specifically regarding an intimate partner

following an anger-inducing incident. The overall structure of the RAR is identical to the AR, except the phrasing of each question was revised to be more relevant to an intimate partner, rather than the more generalised AR normally assessed. For example, in the AR an item was phrased: '*I re-enact the angry episode in my mind after it has happened*', whereas in the RAR, the same item was rephrased as: '*I re-enact the angry episode **between myself and my partner** in my mind after it has happened*'.

The Revised Child Exposure to Domestic Violence Scale (CEDV-R; revised and developed for this thesis)

The original 42-item Child Exposure to Domestic Violence scale (CEDV; Edleson, Shin & Armendariz, 2008) identifies the DV a child is exposed to. This scale was selected as it assesses five forms of DV exposure during childhood (as described below); measures the severity and frequency of the exposure; has been found to be a highly reliable measure ($r = .86$; Edleson et al., 2008); and includes other common risk factors for DV perpetration (e.g., drugs and/or substance misuse). The original CEDV scale assessed the exposure of DV by assuming the offender (more abusive parent) was a male offender (mum's partner) and the victim (less abusive partner) was a female (mum). For this thesis, it was revised to include these constructs, but within the context of **inter-parental DV**, so it could account for both male and female DV perpetrators. For example, the original CEDV included an item asking: '*How often does your mom seem sad, worried or upset?*', whereas in the CEDV-R, the same item was rephrased as: '*How often does the **less abusive/violent parent** seem sad, worried or upset?*'.

Similarly, to the original CEDV, the CEDV-R has two parts and collectively

has five subscales: *level of violence*, *community violence*, *involvement*, *risk factors* and *victimisation*. All the participants were asked to think back to when they were a child to answer items. The first subscale, *level of violence* (4-items; e.g., “How often did adults in your family disagree with one another”), assessed the level of violence they may have been exposed to during their childhood. Similarly, the second subscale, *community violence* (8-items; e.g., “Sometimes people annoy or hurt each other such as making fun of someone or calling them names, and saying things to make them feel bad. How often have you heard a person do or say any of these things to someone else in your community or at your school?”) assessed the level of violence the participant was exposed to in the community they lived in during their childhood. The third subscale, *involvement* (7-items; e.g., “When one of your parents is hurting the other, how often have you tried to get away from the fighting by hiding, leaving the house, locking yourself in a different room or things like that?”) assessed how the individuals reacted during a DV incident between their parents/primary caregivers. The Fourth subscale, *risk factors* (4-items; e.g., “How often do you worry about the more abusive/violent parent getting drunk or taking drugs?”) assessed any past risk factors. Lastly, the fifth subscale, *victimisation* (4-items; e.g., “How often has an adult in your family hurt your feelings by making fun of you, calling you names, threatening you, or saying things to make you feel bad?”) assessed the level of victimisation an individual may have experienced only during their childhood. Participants indicated their responses using a 5-point Likert-type scale ranging from 1 (*‘hardly ever’*) to 5 (*‘almost always’*). The CEDV-R has shown high test retest reliability (Study 1: $\alpha = .89$; Study 2: $\alpha = .87$; Study 3: $\alpha = .93$; and Study 4: $\alpha = .94$) in all studies conducted as part of the development and validation of the DVPPT.

Domestic Violence Proclivity and Implicit Theories (PROCLIVITY_IT;
developed for this thesis)

Based on previous proclivity measures, particularly the rape proclivity scale (Bohner et al., 1998), and knowledge of domestic abuse literature, four hypothetical scenarios/vignettes were constructed. The use of scenarios is supported by previous research which posits that scenarios reduce social desirability in participants, especially when assessing sensitive behavior such as sexual violence and child abuse (Chiroro et al., 2004). Each scenario depicted one of the following forms of DV: (1) *Financial abuse and Controlling behavior*; (2) *Physical violence*; (3) *Emotional and Psychological abuse*; and (4) *Sexual assault/abuse*; each assessing the proclivity and DV-related ITs for each form of DV. Following each of these scenarios was seven questions assessing (1) 'DV proclivity'; (2) 'enjoyment propensity'; (3) the '*violence/DV behavior is acceptable*' IT; (4) the '*partner blame*' IT; (5) the '*partner as object*' IT; (6) the '*need for control*' IT; and (7) the '*relationship entitlement*' IT.

As previously discussed there are certain DV-IT relationships that are thought to emerge across the four forms of DV, based on what we currently know about the IT's and DV behaviors. For instance, for the **Financial abuse/Controlling behavior**, from what we know about this IT and behaviors typical of this form of DV, it is anticipated that individuals who indicate a proclivity towards financial/controlling DV would, to some extent, endorse primarily the '*violence/DV behavior is acceptable*', '*partner blame*', '*need for control*' and '*relationship entitlement*' IT's. This is mainly because we'd expect these individuals to believe that they have the right to control their partners and treat them in any way they deem acceptable; they'd have a need to show dominance towards

their partners in order to maintain their role as the breadwinner or more dominant partner in the household; and view their partner as being to blame for the abuse in that they have done something to warrant this harmful response. In the same way, for those who indicate some proclivity towards **Sexual assault/abuse DV**, it is proposed that all five IT's would be endorsed to some degree as each IT can be used to justify/motivate the abuse, whether it be a right of a spouse to engage in sexual activities whenever they wish as a way of dominating and reinforcing control over their partner, or if they attribute the abuse to something their partner has done, and therefore are deserving of this treatment.

Next, for those who indicate any proclivity towards engaging in **Psychological/Emotional DV**, it is expected that they would also report strong beliefs that support the '*violence/DV behavior is acceptable*', '*partner blame*', '*need for control*' IT's. These three distorted beliefs show a great deal of manipulation and controlling tactics, and partners could psychologically/emotionally abuse their partners without necessarily believing they have the right to do so (i.e., the 'relationship entitlement' IT) or view them as an object to control (i.e., the 'partner as an object'). The proposed three IT's denote an individual who may justify their emotionally abusive behavior as a means to gain some control and stability in the relationship, as this was never something that was achieved/witnessed in their childhood relationships. Likewise, they may view the behavior as acceptable as the behaviors are perceived as being beneficial to the relationship and/or their partners own wellbeing, as illustrated in the honeymoon phase of the 'cycle of abuse' model (previously discussed). Furthermore, a partner could be emotionally abusive because they blame their partner for not having the expected qualities, strengths, or perceive them as being provocative. For these

reasons, they may feel their partner needs to be ridiculed, isolated and made to feel worthless (i.e., emotionally abused) in order to behave in an acceptable way and remain committed to one partner.

Lastly, for those who indicate proclivities towards **Physical violence DV**, it is anticipated they would hold all five distorted beliefs, for similar reasons as those who would endorse sexual assault/abuse. These beliefs would all feed into this DV behavior to some extent given previous findings that show (1) the associations with childhood abuse and physical violence (e.g., Whitfield et al., 2003); (2) having peers that positively reinforce violence and negative attitudes towards women (Jewkes et al., 2011); (3) feeling to need to exert power and control over another as possibly this has never been permitted in other relationships/situations; (4) as a means of managing emotions and frustrations; (5) feeling that it is right to treat an intimate partner violently as this may have been a learned behavior from childhood (Murrell et al., 2007); and (6) viewing one's partner as an object for which to satisfy the above needs as well as helping to alleviate any built-up tension (Vasquez et al., 2005), anger or to reinsert your role as their dominant partner. In view of these predicted outcomes, an example of the financial/controlling DV is presented next to illustrate the aforementioned qualities, including its gender neutrality.

The following is an example of a scenario for *financial abuse and controlling behavior* that was constructed for the purpose of this thesis:

You and your partner have decided to start saving for a house. After a few months of having a joint bank account, you notice that not much money has been saved. You both agree that you will manage all the money, including your partner's, as you feel they are not doing their share towards saving. So, it is decided that both your salaries will go into this account, and you will

manage the savings by distributing a set amount of money to each of you to spend each month. You realize that this leads to a lot of arguments, and your partner repeatedly says they do not have any money left to do anything else after buying groceries. However, you are not convinced as you feel that your partner always wants more money to spend on new clothes and other items that they don't need. So, you maintain control of the money. When you find some money they have stored away in an underwear drawer you decide to take it and reduce their monthly allowance further.

Each scenario was followed with the same seven questions on a 5-point Likert-type scale. The first question was a proclivity item adapted from Bohner et al., (1998) scale (i.e., *"In this situation, could you see yourself doing the same?"*). The second question assessed the enjoyment propensity towards the form of DV in the scenario (i.e., *"In this situation, how much would you have enjoyed getting your way?"* 1 = *would not enjoy it at all* to 5 = *would greatly enjoy it*). The decision to include the measure of enjoyment propensity was based on its inclusion in other key proclivity measures (e.g., the fire setting proclivity scale), as an important component to assess alongside behavioral propensity. Each of the subsequent five questions tapped into selected implicit theories previously associated with DV offending and included an assessment of the participant's propensity to: perceive the *'behavior as acceptable'* (i.e., *"In this situation, given the circumstances, would you find your behavior acceptable?"*; 1 = *very much unacceptable* to 5 = *very much acceptable*), attribute blame to their partner (i.e., *"In this situation, how much is your partner to blame for how you acted towards them?"*; 1 = *not at all* to 5 = *extremely*), to objectify their partner (i.e., *"In this situation, how much do you believe that when you are with a partner, they belong to you and therefore you have*

certain expectations? ”; 1 = *not at all* to 5 = *extremely*), justify the behavior due to a need for control (i.e., “*In this situation, how much would you agree that you have a need for taking control of the situation?*”; 1 = *strongly disagree* to 5 = *strongly agree*), and hold a sense of relationship entitlement (i.e., “*In this situation, how much does your partner’s reaction indicate a lack of respect for your views and concerns?*”; 1 = *not at all* to 5 = *extremely*). Higher scores reflected an overall proclivity for DV and the extent to which an implicit theory was held. The reliability of this scale was found to be $\alpha = .91$ for the DVPPT.

In summary, this specific structure of the DV Proclivity and Implicit Theories component of the DVPPT was implemented for the following key reasons. Firstly, proclivity scales used in forensic contexts (e.g., for rape proclivity, child molester proclivity), include a vignette to reduce social desirability and engage motor imagery about the undesirable behavior, and include a very similar proclivity question with the key phrase ‘*could you see yourself doing the same?*’, and a question about their enjoyment propensity. The other key benefits of assessing proclivity towards types of DV is to also enable researchers to identify the inhibitory mechanisms and immediate antecedents where DV proclivities are high, and also assess DV proclivity of both males and females. Likewise, to explore whether individuals who indicate any proclivities, to some degree, for certain types of DV, would also hold one or more of the DV-related IT’s. Ultimately, proclivity scales provide useful information about the psychological processes that can differentiate offenders from non-offenders who share similar attitudes and beliefs, and to some extent increase the possibility of predicting the cognitive motivations and justifications for DV behaviors.

Secondly, by including the selected IT's after each form of DV, the DV related IT's can be empirically assessed with non-offending samples, as suggested by past DV offender research (Gilchrist, 2009). This also enables us to identify patterns between certain DV behaviors and IT's that would contribute to existing knowledge about offender typologies (e.g., '*family-only*' subgroup by Holtzworth-Munroe & Stuart, 1994), their thought processes and how these may contribute to how they interpret given DV situations before reacting in particular ways. For instance, certain individuals may interpret a forgetful action by their partner as something that has been done purposefully to provoke them, and as a response, they may begin to activate certain thoughts reflecting the '*partner to blame*' and/or '*violence is acceptable*' IT's, which has the potential, alongside other psychosocial factors, to lead to DV offending behavior.

Lastly, the inclusion of IT's and DV proclivity related in turn to specific forms of DV, may provide an insight into how engrained these distorted beliefs are in traditional feminist ideology, and if in fact they can be applied to research based on the intersectionality approach also, given the previously discussed societal and cultural influences (e.g., gender role beliefs). In addition this approach should help to establish whether any patterns can be found between certain IT's, proclivity and the developmental predictive factors included in the DVPPT.

4.1. Participants. A pilot Study was conducted to assess the clarity of measures of: Angry Rumination, Relationship Angry Rumination, Child's Exposure to Domestic Violence, Domestic Violence Proclivity and Enjoyment propensity, and Implicit Theories. Participants included 5 postgraduate students and 6 members of the general public. There were 2 males and 9 females, between the ages of 18 and 34 years old ($M = 26.1$; $SD = 1.9$). Of these, 82% were White/Caucasian; 9% were

Asian and 9% stated 'other'. 100% reported being heterosexual. No other demographics were needed for this pilot Study, and ensuring gender neutrality of the measures was not a priority at this early stage, so the gender make-up of the pilot Study was not a concern. The main focus here was to assess the accessibility of the scale, timing and participant experience.

4.2. Procedure. The Study was approved by the School of Psychology Ethics Committee. Participants completed the battery of questionnaires individually and online. Each participant was provided first with an information sheet (see Appendix B), a Study criteria question (i.e., "Have you been in a relationship before?"), and an electronic consent form to complete (see Appendix C). If they did not wish to participate they could exit the survey. Following this, participants then completed six demographic questions (e.g., "How old are you?") and the AR, RAR, CEDV-R and PROCLIVITY_IT measures. From these measures, the PROCLIVITY_IT scenarios were completed in a random order to better control for responses for each form of DV. Ten participants were asked to provide feedback on a separate section at the end of the survey and two participants carried out a 'think aloud' pilot procedure to identify any changes needed to the scales. The majority of changes suggested by participants included grammatical preferences, and adding more response options to specific questions (e.g., 'never' instead of just 'hardly ever'). These changes were made in full before the main Study – see below.

On completion of the Study, participants were then debriefed in writing (see Appendix D) and provided with contact information of the researcher and support services in the UK.

4.3. Ethics. All data collected was confidential and only identifiable through a unique participant code. This code was either an MTurk ID number (i.e.,

a MID), Prolific Academic ID code, or a random number that was generated through the Qualtrics database. The responses were logged and stored on a password protected laptop. It is important to note here that the DVPPT was not developed to prime or induce any emotional or psychological stress to participants however, some questions require participants to recollect experiences in their childhood that may or may not have occurred. These questions are necessary in order to assess whether an individual has been exposed to DV during childhood. It is therefore possible that for some individuals who have been a victim of DV, some of the questions might bring back painful memories, and make them more vulnerable to depression, anxiety or other post traumatic conditions. As this is a possible outcome, the details for a number of support services across the UK and the USA were provided.

5. Changes to measures following the Pilot Study

From participants' responses the following changes were made to materials.

These were:

I. Study duration on the information sheet:

e.g., "Include in the information sheet – Study will take 40 minutes" –

Participant MTurk code: 5852

- The duration of the Study was added to the information sheet.

II. Put a criteria question at the start of the survey that only allows

individuals who are currently in or have been in a relationship before -

e.g., "What about people who have never been in a relationship? Possibly make

a prerequisite for doing this Study!" – *Participant MTurk code: 5852*

- 'Never having been in a relationship' was included in the exclusion criteria in the information sheet, and was added as a criteria question at the beginning of the Study. Individuals who did not match this criterion were unable to complete the Study.

III. The addition of the option of 'In a relationship but not cohabiting' in the demographics section - e.g., "Need an 'In a relationship but not cohabiting' option" – *Participant MTurk code: 5852*

- This option was added to the relationship status question in the demographics section.

IV. The addition of one more option to the Likert-type scale in the CEDV

measure - e.g., "If participants select 'hardly ever' then it can be difficult to make a choice in the 'how do you know...' section. This needs a 'never' and a 'that I was aware of' option. If this was present, I would have answered some questions differently" – *Participant MTurk code: 9427*

- A 'never' option was added to the CEDV-R measure, making it a 6-point Likert type scale.

V. Changed the instructions for the CEDV part 2, and changed the setting for

the survey to allow multiple options selected - e.g., "How often ... one another" – 'saw dad in a bad mood so you think they've had a disagreement'.

(Survey doesn't allow you to tick more than one option!)" – *Participant MTurk code: 5852*

- The survey settings were changed to allow multiple options to be selected.

VI. Ensured all scenarios were gender neutral - e.g., "Seemed more geared

towards men (e.g., in one scenario referred to partner as 'she')" - *Participant MTurk code: 3406*

- This was changed in the scenario to ensure gender neutrality across all scenarios.

VII. **Condensed the debriefing sheet to minimize repetition** - e.g., “Debriefing page – erase first 3 lines till ‘the purpose of this Study...’ Add a sentence about ‘if you feel you have been or are a victim of domestic violence or other abuse at present call number...’” – *Participant MTurk code: 9427*

- Support information was included at the end of the debriefing sheet with this sentence stated before.

VIII. **Rephrased items and phrases in scenarios** (see Appendix E)

- e.g., “Rephrase – ‘memories of even minor annoyances **from** my partner’” – *Participant MTurk code: 9427* – this was rephrased as suggested.

- e.g., “Rephrase – ‘when one of your parents was hurting the other, how often have you tried to get away from the fighting **from** (change to ‘**by**’) hiding, leaving the house, locking yourself in a different room or things like that?’” – *Participant MTurk code: 9427* – this was rephrased as suggested.

- e.g., “Scenario 2: You and your partner have been living together for a while and have become accustomed to eating dinner together. One evening, you come home from work to find that your partner is not at home and is not answering **her** (change to ‘**their**’) phone. You start to worry and when they get back you ask them where they’ve been? (insert ‘**and**’) Why they didn’t answer their phone? Your partner says they were out with friends, lost track of time and didn’t hear their phone ringing. You do not believe this, and you start asking more questions, which leads to a very heated argument. As your partner decides to walk away, you yank them back by the arm as you feel **this is not over yet because you feel** (deleted previous **bold**) you are not getting any real answers

to your questions. Your partner **yells and accuses** (change to **'yells, accusing'**) you of not trusting them and **of making things up in your head** (change to **'claiming that you're making things up'**). You suddenly slap them across the face and leave the house. - *Participant MTurk code: 9427* – this was rephrased as suggested.

Once the above modifications were made to the DVPPT (see Appendix A.2), alongside some alterations to phrasing in some of the scenarios, the measures were ready to be used on a larger sample to determine the factor structure of the scale, reliability, and its validity. The next section of this Chapter presents the first Study which sought to test the overall statistical reliability and validity of the newly developed DVPPT, and a second Study to replicate the factor structure and reliability of the DVPPT with a different sample.

6. Study 1 of the main DVPPT Study

The first Study in the development of the DVPPT included all the revised items, as outlined in the previous section, with the aim of assessing the statistical reliability and validity of the initial version on the scale. This is achieved through the assessment of the factor structure, to determine whether the items thought to load together actually do, and to assess the reliability of each of the factors (i.e., subscales), and the reliability of the whole scale.

6.1. Participants. A total of 418 participants (52.5% Males, 46% Females) were recruited online through Amazon's Mechanical Turk (MTurk) for a monetary reward of approximately £1.95, of which only 200 matched all the inclusion criteria (i.e., English speaking, over 18 and have been in a relationship before). MTurk was chosen due to its ability to access a wide generalized sample at a relatively low cost, a justification used by researchers (e.g., Alleyne et al., 2015).

This sample comprised mainly of USA participants (96.5%, 3.5% other), all between the ages of 18 and 65 years (18-25 years, $n = 36$, 18%; 26-34 years, $n = 88$, 44%; 35-54 years, $n = 62$, 31%; 55-64 years, $n = 8$, 4%; 65 years or over, $n = 5$, 2.5%). There were 79% ($n = 158$) White/Caucasian participants, 6% ($n = 12$) who were African American, 4.5% ($n = 9$) Hispanic, 8% ($n = 16$) Asian, 1% ($n = 2$) Native Americans, 0.5% ($n = 1$) Pacific Islander, and the remaining 1% ($n = 2$) stated 'other'. There were 89.5% ($n = 179$) who reported being heterosexual, 3% ($n = 6$) were homosexual, 7% ($n = 14$) were bisexual, and 0.5% ($n = 1$) preferred not to state their sexuality. There were 27.5% ($n = 55$) who reported being single and never married, 22% ($n = 44$) who were married with children, 16% ($n = 32$) were living with their partners, 14.5% ($n = 29$) who were married without children, 10% ($n = 20$) were in a relationship but not cohabiting, 7% ($n = 14$) were divorced, 1% ($n = 2$) who were divorced, and 1% ($n = 2$) who were widowed.

6.2. Measures and Procedure. As in the pilot Study, participants completed the measures assessing angry rumination generally; angry rumination towards a partner in a relationship; exposure to DV in childhood; DV proclivity; and implicit theories related to four key forms of DV, as described previously.

6.3. Results.

6.3.1. Data cleaning. All participant responses were individually checked against a number of random attention checker questions (e.g., If you are paying attention, select 'Often'), and participants were only rewarded for their participation if they responded to more than half of the checker questions. The responses of those who did not pass the attention checker items were removed from the final sample, which it must be noted were minimal across all studies conducted using the crowdsourcing platforms within the current research. Reverse items were

recoded and missing values were replaced with the mean value or '0' for dichotomous variables (i.e., the CEDV-R part 2 items and PROCLIVITY_IT items). These data procedures were conducted as the number of missing values were less than 5% and therefore considered as randomly missed and acceptable to retain in the analysis (IBM SPSS Statistics, 2013).

6.3.2. Analyses. An exploratory factor analysis (EFA) was conducted on 20 computed subscales with Oblique rotation (Promax) to determine a good starting point for item selection and subsequent data collection. This form of rotation has been used in previous research when assessing composites/constructs that are expected to be related to each other (Costello & Osborn, 2005). The Kaiser-Meyer-Olkin measure verified the sampling adequacy (.87), above the recommended value of .6, and Bartlett test of sphericity (2410.70, $p < 0.00$) demonstrated adequate multivariate normality.

Table 3: *Factor loadings of the DVPPT subscales from Study 1*

Subscales and Factor	1	2	3
1. Angry Memories	.86		
2. Understanding the Causes	.80		
3. Thoughts of Revenge	.65		
4. Angry Afterthoughts	.86		
5. Angry Memories - Partner	.94		
6. Understanding the Causes - Partner	.80		
7. Thoughts of Revenge - Partner	.53		
8. Angry Afterthoughts - Partner	.94		
9. Level of Violence (i.e., actions)		.83	
10. Involvement during DV		.85	
11. Community Exposure to violence		.50	
12. Risk Factors (e.g., alcohol abuse)		.76	
13. Victimization by adults/parents		.69	

14. Proclivity for DV perpetration	.79
15. Enjoyment of DV behavior	.72
16. Violence/Behavior is Acceptable	.89
17. Partner Blame	.84
18. Partner as Object	.76
19. Relationship Entitlement	.71
20. Need for Control	.70

The EFA yielded a three factor solution explaining 60.82% of the total variance. The eigenvalues for these three factors were 7.63, 2.33 and 3.33 respectively, and in combination explained 66.46% of the variance. The first factor labelled '*Relationship Angry Rumination*' (i.e., RAR), combined eight composites, four from the original Anger Rumination Scale (AR; Sukhodolsky et al., 2001), and four from the revised version of the same items (RAR; Relationship Angry Rumination items). All these items related to angry ruminative tendencies, both generalized and towards an intimate partner. The second factor, labelled '*Exposure to Childhood DV*' (i.e., CEDV), replicates the same five items as the original Childhood Exposure to Domestic Violence Scale (Edleson et al., 2008) composites. The final factor, labelled '*DV Proclivity, Enjoyment and Implicit Theories*' (i.e., PROCLIVITY_IT), combined items related to the five key implicit theories, the proclivity items for each type of DV (e.g., physical violence), and the enjoyment propensity item. All three factors, *Angry Rumination* ($\alpha = .93$), *Childhood exposure to DV* ($\alpha = .85$), and *Proclivity, Enjoyment and Implicit Theories* ($\alpha = .91$) have high reliabilities.

6.4. Discussion. From Study 1, three factors were generated: *Angry Rumination* ($\alpha = .93$); *Childhood Exposure to DV* ($\alpha = .85$); and *Proclivity, Enjoyment and Implicit Theories* ($\alpha = .91$). These reliabilities statistically indicate that each subscale is highly reliable in assessing the constructs that they are meant to assess, which is the first stage of scale development, as seen by previous researchers who have successfully developed psychometrics (e.g., Denson, Pedersen & Miller, 2006). From this, Study 2 was devised to assess the reliability of the scale through the replication of these three factors. If the DVPPT reliably assesses *Angry Rumination*, *Childhood Exposure to DV* and *Proclivity, Enjoyment*

and Implicit Theories, then it is expected that in a replication Study (i.e., Study 2), these three factors will emerge. Study 2 was also conducted to:

(1) include items that only assessed angry rumination specifically directed at partners (i.e., RAR subscale);

(2) remove items that assess generalised angry ruminative tendencies (i.e., AR subscale), as it seems likely that individuals who engage in general angry rumination would also be likely to engage in relationship angry rumination. Also, as the research area is focused on DV, the predictive factors specific to the context of intimate relationships would be the most useful for informing DV interventions. Equally, the AR subscale items were highly correlated to the RAR subscale items, and loaded on to the same factor (see Table 3);

(3) to reduce the overall length of the questionnaire due to time constraints, and reduce the familiarity of questions as both the AR and RAR contained conceptually identical items, apart from the addition of ‘my partner’ in the RAR subscale (see the measures section).

7. Study 2: Replication of factor structure in a student sample

7.1. Participants. Participants were students from a University in the South East of the UK, recruited in exchange for course credit. There were a total of 206 participants (80.2% Females and 19.8% Males), of whom 172 fitted the criteria for the Study and were included in the final analyses. The criteria were: (1) Must be over 18 years old; and (2) Must be English speaking. The participants were aged between 18 and 25 years old, (18-25yrs, $n = 136$, 79.1%; 26-34yrs, $n = 24$, 14%; 35-54yrs, $n = 9$, 5.2%; 55-64yrs, $n = 1$, 0.6%, 65 or over, $n = 2$, 1.2%). There were 72.7% ($n = 125$) White/Caucasian participants, 5.2% ($n = 9$) were Asian, 1.7% ($n = 3$) were African American, 1.2% ($n = 2$) were Pacific Islander, 0.6% ($n = 1$) were

Native American, and the remaining 18.6% ($n = 32$) stated 'other' for their race. The sexuality of the participants: 92.4% ($n = 159$) reported being heterosexual, 4.7% ($n = 8$) were bisexual, 2.3% ($n = 4$) were homosexual, and 0.6% ($n = 1$) preferred not to state their sexuality. The current relationship status of the participants was: 41.3% ($n = 71$) were single, never married, 36% ($n = 62$) were in a relationship but not cohabiting, 13.4% ($n = 23$) were living with their partners, 5.2% ($n = 9$) were married with children, 2.9% ($n = 5$) were married without children, 0.6% ($n = 1$) were divorced, and 0.6% ($n = 1$) were widowed.

7.2. Materials.

7.2.1. Changes made to the items from Study 1. The only change made to the design of Study 2 was the removal of the four composites that made up the AR scale. In their place, we kept the items for angry rumination related to an intimate partner in order to assess angry rumination in the context of intimate relationships. In total, the RAR, CEDV-R and PROCLIVITY_IT scales were administered in Study 2, totalling 78 items (see Appendix E).

7.3. Procedure. Participants in Study 2 followed the same procedure as in Study 1. All responses were completed individually online, with the same information form, consent sheet and debriefing information provided as in Study 1.

7.4. Results and Discussion. The same data preparation and ethical considerations were included in Study 2 as in Study 1, and the same procedures were carried out. A total of 16 composites were computed for the RAR, CEDV-R and PROCLIVITY_IT scales as in Study 1. Table 4 illustrates the correlations between the subscales of the DVPPT. From these correlations, there are a few important aspects to highlight:

(1) there are significant relationships between the items in each subscale, which shows internal consistency, as expected;

(2) the RAR subscales, the violence exposed to during childhood, the violence experienced in their community, and the extent to which they were victimised by the abusive parent/caregiver, were all found to relate to DV proclivity. This suggests that individuals who have a propensity to engage in DV are likely to engage in angry rumination towards intimate partners, have a history of being a victim of childhood DV and were exposed to violence in their community. To an extent this shows how the use of angry rumination develops during childhood, when exposed to DV and general violence, and, during adulthood, is actively practiced in intimate relationships, following an incident that made them angry;

(3) individuals who engage in angry rumination whereby the underlying thoughts are of 'angry memories' and 'thoughts of revenge', were also shown to be likely to hold DV-related implicit theories. This is very interesting as it could imply that the angry ruminative tendencies individuals have towards their partners, may manifest from memories of similar events during their childhood, and from distorted thoughts about intimate relationships and partner roles; also perhaps stemming from childhood experiences; and

(4) the DV-related implicit theories, enjoyment propensity and proclivity towards DV behavior all associated with one another. This shows internal consistency and reliability of this newly developed DV proclivity component, and highlights the presence and relationship between DV implicit theories and proclivity that, to the author's current knowledge, has not been empirically tested/assessed prior to this thesis.

Exploratory Factor Analysis (EFA)

An EFA with Oblique rotation (Promax) was conducted on these composites to identify whether the same three factors from Study 1 would emerge. The Kaiser-Meyer-Olkin measure (KMO = .88) and the Bartlett test of sphericity (1900.721, $p < 0.00$) both supported the factor analysis procedure. The EFA produced a three factor solution, which explained 71.12% of the total variance. The eigenvalues were 2.25, 3.09 and 6.04 for these three factors, respectively. The first factor was comprised of the same five composites for the '*Childhood exposure to DV*' (CEDV) factor as in Study 1, with good reliability ($\alpha = .84$). The second factor was made up of the four composites from the RAR scale that contributed to the '*Angry Rumination*' (AR) factor from Study 1. This factor was renamed '*Relationship Angry Rumination*' (RAR) and also showed high reliability ($\alpha = .86$). The third factor consisted of the same seven composites that made up the '*PROCLIVITY_IT*' factor in Study 1 and had high internal reliability ($\alpha = .94$).

Table 4. *Correlations between the subscales of the DVPPT (N=172)*

Subscales and Factor	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1. Angry Memories	-															
2. Understanding the Causes	.70**	-														
3. Thoughts of Revenge	.65**	.52**	-													
4. Angry Afterthoughts	.69**	.67**	.50**	-												
5. Level of Violence	.14	.16*	.05	.13	-											
6. Involvement	.10	.18*	.15*	.10	.71**	-										
7. Community Exposure	.14	.15*	.18	.18*	.31**	.41**	-									
8. Risk Factors	.15*	.24**	.17*	.12	.62**	.65**	.42**	-								
9. Victimization	.23**	.20**	.26**	.10	.57**	.63**	.31**	.60**	-							
10. Proclivity	.33**	.21**	.30**	.24**	.16*	.11	.16*	.14	.17*	-						
11. Enjoyment	.28**	.18*	.25**	.23**	.11	.14	.20*	.13	.16*	.78**	-					
12. Violence/Behavior is Acceptable	.28**	.16*	.31**	.20**	.11	.14	.16*	.16*	.13	.79**	.80**	-				
13. Partner Blame	.24**	0.13	.23**	.21**	.11	.15	.15*	.14	.08	.72*	.74**	.81**	-			
14. Partner as Object	.20**	.06	.24**	.14	.05	.08	0.11	.13	.10	.64**	.66**	.75**	.80**	-		
15. Relationship Entitlement	.24**	.14	.26**	.18*	.04	.10	0.12	.15*	.01	.65**	.64**	.69**	.81**	.78**	-	
16. Need for Control	.17*	.11	.26**	.12	.03	.07	.19*	.10	.04	.60**	.59**	.68**	.74**	.68**	.73**	-

*. Correlations are significant at the 0.05 level (2-tailed).

** . Correlations are significant at the 0.01 level (2-tailed).

Confirmatory Factor Analysis

In order to gain more confidence in the factor structure of the newly developed DVPPT, a Confirmatory Factor Analysis (CFA) was conducted using AMOS (22) software to replicate the factor structure in Study 1. In conducting the CFA, the 3 factors retained in Study 1 ('RAR', 'CEDV' and 'PROCLIVITY_IT') and their subscales were entered as latent variables, with no error terms correlated. Good practice guidelines (e.g., Hu & Bentler, 1999) were followed, from which the CFA showed that the model had good fit with the observed data in Study 2 ($\chi^2 = 189.52$, $df = 101$, $p < .001$; CFI = .952; RMSEA = .072 (90% CI = .056, .087)). From this, it is clear that the results of this CFA show support for the factor structure of the DVPPT found in Study 2 (see Table 5), that the final items for the new DV tool were confirmed and the three-factor structure successfully reproduced.

Table 5. Descriptive statistics and factor loadings of the DVPPT Subscales in Study 2 (N =172)

Item	Factor Loading	Item-total correlation	Mean (SD)
<i>"Relationship Angry Rumination"</i>			
Angry Memories (partner)	.901	.46	1.69 (.63)
Understanding the Causes (partner)	.820	.39	1.80 (.65)
Angry Afterthoughts (partner)	.797	.38	2.20 (.69)
Thoughts of Revenge (partner)	.636	.45	1.36 (.43)
<i>"Childhood Exposure to Domestic Violence"</i>			
Level of Violence	.795	.39	2.12 (.71)
Community Exposure	.433	.36	2.88 (.71)
Involvement	.882	.42	1.81 (.97)
Risk Factors	.788	.44	2.08 (.99)
Victimization	.716	.43	1.60 (.72)
<i>"Proclivity_Implicit Theories"</i>			
Proclivity (Financial, Sexual, Psychological and Physical forms of DV)	.781	.67	1.54 (.67)
Enjoyment (Financial, Sexual, Psychological and Physical forms of DV)	.801	.67	1.66 (.73)
Behavior/violence is Acceptable (IT)	.885	.71	1.67 (.72)
Partner to Blame (IT)	.933	.71	1.91 (.78)
Partner as Object (IT)	.873	.62	1.70 (.86)
Relationship Entitlement (IT)	.849	.65	2.04 (.79)
Need for Control (IT)	.802	.58	2.33 (.94)

8. Overall Discussion

This Chapter outlined the main justifications for why the newly developed Domestic Violence Proclivity and Predictors Tool (DVPPT) included measures of childhood exposure to DV, angry rumination, proclivity and implicit theories. The initial pilot Study methods and procedures have been presented, alongside key changes made to the scale, and the first two studies testing the reliability and factor structure of the scale. From the small pilot Study the changes made were mainly the addition of response options for certain questions; ensuring scenarios were gender neutral and correcting grammatical errors.

Following this, Study 1 was conducted, which included: the highly reliable child's exposure to DV scale (Edleson et al., 2008); anger rumination scale (Sukhodolsky et al., 2001); a revised version of Sukhodolsky's scale to assess angry ruminative tendencies within the context of an intimate relationship; DV proclivity, enjoyment and five implicit theories of four main forms of DV, as described above. Following data analyses procedures, a three factor structure emerged: (1) combined all eight angry rumination subscale (both general and relationship contexts); (2) all childhood exposure to DV subscales; (3) the proclivity, enjoyment and five implicit theory items. These three factors were also found to have high internal reliability and internal consistency: '*Angry Rumination*' (AR and RAR; $\alpha = .93$), '*Childhood Exposure to DV*' (CEDV-R; $\alpha = .85$), and '*Proclivity, Enjoyment and Implicit Theories*' (PROCLIVITY_IT; $\alpha = .91$).

Therefore, from Study 1, it can be seen that the DVPPT has high internal consistency, as all subscales have Cronbach alpha measurements above 0.7 (e.g., Fields, 2016), and the factors group together as they were conceptually expected to (i.e., convergent validity). For instance, the items that were included to assess

childhood exposure to DV, successfully loaded on the same factor (CEDV-R). This is important as it begins to provide initial support for the theoretical standpoint that individuals attitudes towards key constructs thought to be related to DV, are in fact related to DV and each other. Specifically, that the social, cognitive, behavioral constructs that have been suggested to have developed during childhood to influence attitudes towards DV perpetration, are shown here to in fact relate to each other and to DV proclivity. This further supports the idea of DV being explained by the nested ecological model and intersectional theory.

Following this, a second Study (Study 2) was conducted to determine whether the factor structure would be successfully replicated, which would demonstrate the reliability and validity of the DVPPT with another sample. In Study 2, the subscales that measured *angry rumination* generally were removed, as they had near to identical correlation coefficients to those of the *relationship angry rumination* items. In addition, previous researchers have shown that if a person is likely to engage in rumination, this tendency is usually generalised across contexts. Therefore, as seen in the correlational coefficients, the participants in Study 1, who indicated a tendency to engage in angry rumination both in general and towards their partners, differed from those who showed no ruminative tendencies in either context.

In Study 2, the three factor structure was successfully replicated and retained high levels of internal consistency: 'Relationship Angry Rumination' (RAR; $\alpha = .86$), 'Childhood Exposure to DV' (CEDV-R; $\alpha = .84$), and 'Proclivity, Enjoyment and Implicit Theories' (PROCLIVITY_IT; $\alpha = .94$). This suggests that the newly developed DV scale is statistically reliable in assessing three key constructs proposed to increase the predictive power of DV proclivity and attitudes towards perpetration (i.e., childhood exposure to DV; angry rumination towards an intimate

partner; and DV proclivity and implicit theories). However, in addition to the statistical internal consistency which shows the internal reliability of a newly developed measure, the convergent and discriminant validity is essential to ensure the constructs are theoretically sound.

Briefly, if the DVPPT is shown to have good convergent validity, it would mean that the constructs measured by the DVPPT are all conceptually valid, which means each construct and the scale as a whole assesses what it is supposed to assess (in line with the developers aims), and nothing else. Likewise, if the DVPPT is evidence to have good discriminant validity, it means that the scale does not assess any constructs that are not conceptually related to DV. For example, it is not expected that individuals that score highly as self-reporting angry ruminative tendencies, to also report being easily distracted following an event that has made them angry, or similarly to be high in trait agreeableness or openness. To this end, the next Chapter (Chapter 4) presents two correlational validation studies (Studies 3 and 4) that were conducted to assess the convergent and discriminant validity of the DVPPT.

Chapter Four

The Initial Validation of the DVPPT: Two Correlational Studies

The previous Chapter presented two studies (Studies 1 and 2), that formed the developmental stages of the Domestic Violence Proclivity and Predictors Tool (DVPPT). Following the identification and confirmation of a three factor structure in studies 1 and 2, it was determined that the DVPPT was statistically reliable. The next step was to establish the concurrent construct validity (convergent and discriminant) of the DVPPT. To do this, the DVPPT was administered alongside other scales that assessed constructs that were either theoretically related (convergent) or unrelated (divergent) to those measured by the DVPPT (e.g., angry rumination). To this end, this Chapter reports two validation studies (Studies 3 and 4) conducted to establish construct validity of the DVPPT.

Two separate validation studies were conducted so as to reduce the length of time each participant would spend completing the Study, and lessen the possibility that participants would become fatigued and potentially provide less reliable responses. Both studies were designed so that the DVPPT was grouped with three other measures to ensure that theoretically related and unrelated constructs were assessed across both studies. For instance, the measure that assessed ‘generalised trait aggression’ was included in one Study, and a measure of ‘displaced aggression’ was include in the other. In total, the constructs that were assessed to determine the validity of the DVPPT were ‘*domestic violence*’, ‘*generalised trait aggression*’, ‘*big five personality traits*’, ‘*displaced aggression*’, ‘*dissipation-rumination*’ and ‘*physical aggressiveness and violence*’. Overall, the administration time for each Study was approximately 25 minutes. The scales used to assess these constructs will be outlined in the materials section.

Overall, the research reported in this Chapter was conducted to determine: (1) the **construct validity (convergent and discriminant)** of the DVPPT through two validation studies (studies 3 and 4); (2) whether there were any **gender difference** among participants' responses to both the DVPPT and the CTS2, to establish the gender neutrality of the DVPPT; (3) whether the DVPPT was a **significant predictor of generalised trait aggression**, given the associations between DV and aggression, assessed using the Aggression Questionnaire; and (4) whether the DVPPT was a **significant predictor of attitudes towards domestic violence**, by comparing it to the Conflict Tactics Scale – revised (CTS2), which is, to the author's current knowledge, the most cited tool used to assess DV.

Method

Studies 3 and 4 were conducted to obtain preliminary evidence of the construct validity (convergent and discriminant) of the DVPPT. Both studies included three accompanying measures that were expected to be theoretically related (i.e., show convergent validity), or unrelated (i.e., show discriminant validity), to the constructs measured by the DVPPT (i.e., DV proclivity, childhood exposure to DV, angry rumination, DV implicit theories and DV enjoyment propensity). A total of 298 participants took part in these validation studies, and were recruited using MTurk crowd sourcing platform (as in Study 1). See Chapter 3 for a full outline of the method.

1. Study 3

This Study included the DVPPT; the CTS2 scale (Straus et al., 1996) to assess *domestic violence*; the Aggression Questionnaire (i.e., the AQ; Buss & Perry, 1992) to assess *generalized trait aggression*; and the Mini-IPIP scale (Donnellan,

Oswald, Baird, & Lucas, 2006) to assess the *big five personality traits*. These measures were group together in Study 3 to ensure no priming or order effects from participants, and to reduce the participation time (as previously stated).

1.1. Participants. One hundred and forty-eight participants (Males, $n = 69$, 46.6%; Females, $n = 78$, 52.7%) were recruited through MTurk. All participants were from the USA, with an age range between 18 and 75 years ($M = 34.3$; $SD = 3.8$). Of these 25.7% ($n = 38$) were married with children, 22.3% ($n = 33$) were single and had never been married, 17.6% ($n = 26$) were living with their partners, 14.2% ($n = 21$) were in a relationship but not cohabiting, 9.5% ($n = 14$) were married without children, 6.8% ($n = 10$) were separated, 2.7% ($n = 4$) were divorced, 1.4% ($n = 2$) were widowed. Regarding ethnicity, 76.4% ($n = 113$) were white Caucasian, 10.1% ($n = 15$) were Hispanic, 7.4% ($n = 11$) were African American, 3.4% ($n = 5$) were Asian, 0.7% ($n = 1$) were Native American, 0.7% ($n = 1$) were Pacific Islander, and the remaining 1.4% ($n = 2$) did not disclose their race. The sexuality of the participants comprised of 85.1% ($n = 126$) heterosexuals, 12.2% ($n = 18$) bisexuals, 2% ($n = 3$) homosexuals, and 0.7% ($n = 1$) preferred not to say. All were given a monetary reward of £1.26 (i.e., \$1.60) for their participation.

1.2. Materials. *The DVPPT*

This scale included the final items outlined in Study 2 (see Chapter three). In Study 3 the DVPPT displayed excellent internal consistency ($\alpha = .90$).

The Revised Conflict Tactics Scale (CTS2; Straus et al., 1996)

As the DVPPT was developed to assess DV constructs (e.g., DV proclivity, physical violence), it was expected to positively correlate with existing scales that measure DV. To determine this, the revised Conflict Tactics Scale (CTS2; Straus et al., 1996) was used as a comparison as it is a commonly cited DV screening tool

with good validity and reliability (e.g., Godbout, Dutton, Lussier, & Sabourin, 2009), as noted in Chapter 2. It is comprised of 78 questions (i.e., 39 mirrored questions for both the victim and abuser), that assess 5 key tactics/behaviors within a relationship DV: (1) Negotiation; (2) Psychological Aggression; (3) Physical Assault; (4) Sexual Coercion; and (5) Injury. Participants respond by indicating how often they have experienced, or engaged in, each behavior (e.g., “*I pushed or shoved my partner*”), using an eight-point Likert scale ranging from 0 (‘*this has never happened*’) to 7 (‘*not in the past year, but it did happen before*’), as structured by the developers of the CTS2.

The Aggression Questionnaire (AQ; Buss & Perry, 1992)

The AQ was used to assess generalised trait aggression, as both physical and verbal acts of aggression have been identified in intimate relationships (e.g., Graham-Kevan & Archer, 2003), as discussed in Chapter 3. The AQ has four subscales; *hostility, anger, physical aggression* and *verbal aggression*, assessed via 29 questions. Participants respond using a 5-point Likert-type scale from 1 (‘*extremely uncharacteristic of me*’) to 5 (‘*extremely characteristic of me*’). This measure was incorporated into the validation stage to determine the extent to which an individual’s level of generalised trait aggression related to their DV proclivity. Therefore, it was expected that generalised trait aggression would positively correlate with the DVPPT. It was also expected that angry rumination (i.e., the RAR construct in the DVPPT) would be positively related to aggression, as highlighted in past research (e.g., Pedersen et al., 2011 – see Chapter 1).

The Mini-IPIP Scale (Mini-IPIP; Donnellan, Oswald, Baird, & Lucas, 2006)

Personality differences that may exist among those who have a tendency to engage in DV (and rumination) are important to consider, as they provide

information about how inter-partner aggression may be affected by individual characteristics. Although specific traits such as agreeableness, conscientiousness and neuroticism have been previously linked to criminal behavior (e.g., Wiebe, 2004), the majority of research on personality and DV offending has focused more on psychopathology. For instance, previous studies have found a majority of DV offenders to have anti-social, depressive and borderline personality disorders, and that these are more likely in those who had a history of childhood abuse (Minzenberg, Poole, & Vinogradov, 2008; Murrell, Christoff, & Henning, 2007). Comparatively, others have noted psychopathological diversity among DV offenders, and attributed it to offenders either over-emphasising or under-reporting specific symptoms related to personality disorders (Gibbons, Collins & Reid, 2011).

As the DVPPT was not designed to be administered to known/apprehended DV offenders, but to those within the community who may share similar attitudes and beliefs as DV offenders (i.e., have DV proclivities), the assessment of psychopathology traits was not a focus of this thesis. This is because personality has not been identified as a specific predictor of DV offending. However, as stated previously (see above and Chapter 1), certain traits have been linked to both childhood abuse and normalised attitudes towards criminal and/or violent behavior, which are also related to DV offending attitudes, and to some extent are depicted in the DV typologies previously discussed. Considering this, it was expected that: (1) the constructs within the DVPPT that measured childhood exposure to DV (i.e., CEDV-R) would correlate with personality traits known to be linked to criminal behavior (i.e., neuroticism, agreeableness and conscientiousness); (2) there would be no positive correlation between DV proclivity and personality traits; and (3) there would be no correlation between personality traits and angry rumination constructs

(i.e., RAR) since angry rumination has been empirically linked only with personality disorders; specifically borderline disorder (e.g., Baer & Sauer, 2011; Peters, Geiger, Smart, & Baer, 2014), rather than personality traits.

To test these predictions and examine the *discriminant validity* of the DVPPT, the Mini-IPIP Scale (Mini-IPIP; Donnellan, Oswald, Baird, & Lucas, 2006) was used. This is a short form of the 50-item International Personality Item Pool-Five Factor Model measure (Goldberg, 1999), made up of 20 statements, four for each of the Big Five personality characteristics (i.e., *Extraversion*, *Agreeableness*, *Conscientiousness*, *Neuroticism* and *Intellect/Imagination*). Participants were asked to rate how accurate each statement described them on a 5-point Likert-type scale ranging from 1 ('*very inaccurate*') to 2 ('*very accurate*'). This scale was used as it is quick to administer and reliably assesses the Big Five factor personality traits (Baldasaro, Shanahan, & Bauer, 2013; Cooper, Smillie, & Corr, 2010).

1.3. Procedure. Participants completed an online survey comprised of the DVPPT, CTS2, AQ and Mini-IPIP. To ensure that all participants had not completed the DVPPT previously (i.e., in either Study 1 or 2), a screening procedure was carried out using participant identification numbers (i.e., MID MTurk number). All the same ethical guidelines were adhered to as outlined in Chapter 3.

Participants were also informed that the survey had some sensitive content included (e.g., the CEDV-R scale). Following this they were asked to complete the survey individually and in private, fully debriefed and provided with contact details for support services both in the UK and the USA (see Appendix F for the questionnaires used in Study 3).

1.4. Results. Items were recoded and missing values replaced by the series mean of that item where necessary. The following results are reported: (1) the

concurrent convergent and discriminant construct validity using the total scores and subscales and the DVPPT; (2) the relationship of **males' and females' responses on the DVPPT and CTS2**; (3) whether the **DVPPT, CTS2 and/or Gender were predictors of aggression** (i.e., the AQ); and (5) whether the **DVPPT was a predictor of CTS2** compared to the AQ and gender.

1.4.1. Concurrent Convergent and Discriminant Construct Validity.

1.4.1.1. DVPPT total scores in Study 3. The total scores for the DVPPT and the comparison measures were computed and correlated to determine the global/overall construct validity of the DVPPT. Table 6a shows all measures were positively correlated with the DVPPT except the Mini-IPIP, as expected. This illustrated the convergent validity of the DVPPT because its total score was related to the total scores of constructs that are theoretically associated with attitudes and behaviors related to DV (e.g., displaced aggression), and did not have any association with those constructs that were unrelated to attitudes and behaviors related to DV (i.e., big five personality traits).

Table 6a. *Correlations between the DVPPT and comparative scales in Study 3*

New Scale	Comparative Measures		
	CTS2	AQ	Mini-IPIP
DVPPT	.26**	.43**	-.03

*Correlations are significant at the 0.05 level (2-tailed). **. Correlations are significant at the 0.01 level (2-tailed).

4. *Subscales of the DVPPT.* To further assess the construct validity of the DVPPT, the subscales within the DVPPT (i.e., the RAR, CEDV-R and PROCLIVITY_IT) were correlated with the comparative scales to assess how the constructs related to each

other. This was necessary as the DVPPT comprised of both common risk factors (i.e., childhood exposure, CEDV-R) and *hypothesised* predictive factors (e.g., angry rumination, RAR), and therefore needed to be examined closely. Table 6b reports these correlations, and shows that all the comparative measures except the Mini-IPIP were positively associated with the subscales of the DVPPT. This supports the predictions that angry rumination, childhood exposure to DV, DV proclivity and implicit theories all relate to the expected criterion measures (e.g., the AQ, generalised trait aggression; the CTS2, domestic violence), and were unrelated to personality traits.

Table 6b. *Concurrent Construct Validity Data (Correlations of total scores)*

		DVPPT Subscales			
		RAR	CEDV-R	PROCLIVITY_IT	
Comparative Scales	<i>n</i>	α	($\alpha = .94$)	($\alpha = .87$)	($\alpha = .92$)
CTS2	148	.69	.23**	.23*	.22**
AQ	148	.88	.43**	.41**	.36**
Mini-IPIP	148	.62	-.07	-.02	-.02

*. Correlations are significant at the 0.05 level (2-tailed). **. Correlations are significant at the 0.01 level (2-tailed).

Following this, Table 6c reports the correlations between the DVPPT subscales and the subscales of the comparative measures. As expected, the subscales of the DVPPT correlated in the expected direction with the subscales of the AQ. This shows that the DVPPT measures conceptually similar constructs to those assessed by the AQ (i.e., anger, hostility, physical violence and psychological aggression), which have been found to be theoretically related to attitudes and behaviors towards DV

(Ferguson et al., 2008). For instance, the association found between individual's tendency to make more hostile attributions towards certain behaviors and childhood exposure to DV, (McDonald et al., 2007) could explain the positive relationship found between the AQ and DVPPT subscales. Other studies show links between DV and attitudes of normalisation of violence (Murrell et al., 2007), and behaviors common of psychological/emotional abuse, which is also seen in common DV models such as the Power and Control Wheel, previously outlined in chapter 1. Lastly, these findings support the Frustration-Aggression Hypothesis (Dollard et al., 1939), linking a trigger, illustrated in the scenario, to a primed state which could motivate certain DV behaviors. This might also explain the positive correlation between the AQ and the angry rumination subscale, given the evidence between angry rumination and aggressive priming (discussed in chapter 1).

In addition, the DVPPT subscales positively correlate with the CTS2 subscales, except the 'negotiation' tactic subscale. Although these are low correlations, they are still significant and provide initial support that there is some relationship between the scores individuals have towards DV tactics/behaviors they use within their relationships and their self-reported attitudes and beliefs towards DV, assessed by the DVPPT. This suggests that possibly individuals who indicate an endorsement of pro-DV beliefs and attitudes; self-report a tendency to engage in angry rumination; report some exposure to DV during childhood, and show some proclivity towards forms of DV, may to some extent also engage in some of the DV tactics assessed by the CTS2. Therefore, to some degree, from an initial Study, this finding supports the prediction that the DVPPT assesses attitudes and predictors related to DV behaviors such as physical assault, psychological aggression and sexual coercion, but does not tap into one of the tactics a couple might engage in to

avoid DV (i.e., negotiation). Subsequently, the relationship between the DVPPT constructs and the Mini-IPIP subscales suggests that individuals who had high levels of agreeable and conscientious personality traits were significantly less likely to engage in angry rumination toward their partners. Conversely, those who had high levels of neuroticism were significantly more likely to report tendencies of engaging in angry rumination, and indicate having a history of childhood exposure to DV.

Table 6c. *Concurrent Construct Validity Data (Correlations of subscales)*

Scale	Subscales of comparative scales	<i>n</i>	α	DVPPT Subscales		
				RAR ($\alpha = .94$)	CEDV-R ($\alpha = .87$)	PROCLIVITY_IT ($\alpha = .92$)
AQ	Hostility	148	.79	.35**	.35**	.30**
	Physical Aggression	148	.42	.40**	.30**	.31**
	Verbal Aggression	148	.34	.30**	.35**	.23**
	Anger	148	.79	.44**	.41**	.41**
CTS2	Negotiation	148	.90	-.05	.00	-.02
	Psychological Aggression	148	.74	.40**	.26**	.28**
	Physical Assault	148	.83	.26**	.31**	.26**
	Sexual Coercion	148	.53	.31**	.28**	.33**
	Injury	148	.57	.24**	.30**	.28**
Mini-IPIP	Extroversion	148	.86	-.14	-.06	.07
	Agreeableness	148	.78	-.23**	-.10	-.08
	Conscientiousness	148	.74	-.19*	-.22**	.04
	Neuroticism	148	.81	.46**	.37**	.07
	Intellect/Imagination	148	.80	-.11	-.07	-.16*

*. Correlations are significant at the 0.05 level (2-tailed). **. Correlations are significant at the 0.01 level (2-tailed).

4.1.2. A comparison of the DVPPT and CTS2 subscales. To gain a more in-depth understanding of how the DVPPT assesses DV constructs, the individual constructs which make up its PROCLIVITY_IT component (i.e., DV proclivity, enjoyment propensity and DV implicit theories) were each correlated with the subscales from the CTS2 (which is the most commonly cited DV tool), to identify how they relate to specific DV behaviors/tactics assessed by the CTS2.

Table 7a shows that all the CTS2 subscales except ‘negotiation’ positively correlated with ‘DV proclivity’, ‘enjoyment propensity’, ‘violence/DV behavior is acceptable’, ‘partner blame’ and ‘need for control’ implicit theories, but not with the ‘partner as an object’ implicit theory, in the DVPPT. These associations show that specific implicit theories appear to be held by individuals that display certain DV behaviors and report having certain DV proclivities. Specifically, it could be suggested that those who hold these distorted beliefs about their partners, display behaviors within their relationships that are indicative of certain DV proclivities towards specific forms of DV such as physical assault, and they find enjoyment in this behavior. In addition, individuals who reported holding beliefs indicative of the implicit theory ‘relationship entitlement’, only tend to report engaging in ‘psychological aggression’ and ‘sexual coercion’ tactics, which are mechanisms integral to exerting control over another (See Table 7a for correlations). It must be highlighted that although these correlations are low correlations, they provide good initial evidence of the conceptual relationship between individuals that report some childhood exposure to DV, angry ruminative tendencies and hold certain DV implicit theories (i.e., constructs assessed by the DVPPT) and behaviors evidenced to be used in DV conflict/relationships. For a tool of this kind, this provides some positive initial evidence that the constructs included in the DVPPT appear to be related to

common DV constructs. Additionally, these correlations were expected given that a community sample was recruited, which was expected not to generally have a high proportion of DV proclivities.

Table 7a. *Concurrent Construct Validity Data (Correlations between the CTS2 subscales, enjoyment and implicit theories in the DVPPT)*

	<i>n</i>	CTS2 Subscales				
		Negotiation ($\alpha = .90$)	Injury ($\alpha = .57$)	Psychological Aggression ($\alpha = .74$)	Physical Assault ($\alpha = .83$)	Sexual Coercion ($\alpha = .53$)
Selected DVPPT subscales						
Proclivity	148	-.17	.40**	.31**	.36**	.36**
Enjoyment	148	-.02	.27**	.26**	.24**	.30**
Violence/DV behavior is Acceptable	148	.02	.27**	.22**	.22**	.31**
Partner Blame	148	.05	.23**	.26**	.24**	.36**
Partner object	148	-.08	.13	.13	.13	.16
Need for control	148	-.01	.19*	.20**	.18*	.17*
Relationship Entitlement	148	-.04	.15	.23*	.13	.25**

*. Correlations are significant at the 0.05 level (2-tailed). **. Correlations are significant at the 0.01 level (2-tailed).

1. *Male and female responses on the DVPPT and CTS2 scales.* As the DVPPT was developed to have a gender neutral approach to assessing self-reported attitudes towards certain DV-related constructs it was expected that both male and female scores on the DVPPT would reflect this. For instance, most of the items were rephrased to be gender neutral in order to assess DV carried out by *either* parent in childhood and/or *either* partner in adult relationships (see Chapter 2). To assess this,

it was important to explore how well males' and females' scores related to the constructs measured by the DVPPT. To this end, correlations were conducted to assess if male and female scores related to each of the subscales of the DVPPT. Findings show that most of the subscales related to both males' and females' DVPPT scores, and support that items in the DVPPT are gender neutral (see Table 7b).

Key findings to note were that: (1) only females were more likely to report an enjoyment propensity towards engaging in DV behavior if they had also disclosed a history of childhood exposure to DV, suggesting that females enjoyment in engaging in DV might be related to the types of exposure to DV incidents in childhood, and the nature of these instances; (2) only males indicated they held the 'partner blame' implicit theory when they had also disclosed a history of childhood DV, which may indicate that the nature of the exposure to DV in childhood contributing to them forming this implicit theory; and (3) relationship between angry rumination and DV proclivity were both significantly associated with all the other DVPPT constructs among males but **not** females. One important point to note about these findings is that only males' scores correlated positively with reporting of angry ruminative tendencies that linked to their endorsement of implicit theories (i.e., partner blame), and higher levels of proclivity. Overall, these findings demonstrated good support for the gender neutrality of the DVPPT.

Table 7b. *Correlations of Males and Females in the DVPPT variables (N= 148)*

Gender	DV variables	1 2 3 4 5 6 7 8 9								
		1	2	3	4	5	6	7	8	9
Males	1 CEDV-R	-								
	2 RAR	.518**	-							
	3 Proclivity	.291*	.439**	-						
	4 Enjoyment	0.167	.358**	.713**	-					
	5 Violence/DV Acceptable Partner	0.21	.325**	.845**	.855**	-				
	6 Blame Partner as	.339**	.433**	.771**	.765**	.807**	-			
	7 Object	0.22	.401**	.596**	.742**	.688**	.724**	-		
	8 Relationship entitlement	0.236	.367**	.551**	.575**	.605**	.715**	.623**	-	
	9 Need for Control	0.22	.249*	.481**	.656**	.523**	.574**	.598**	.673**	-
Females	1 CEDV_R	-								
	2 RAR	.277*	-							
	3 Proclivity	.347**	.416**	-						
	4 Enjoyment	.287*	.340**	.556**	-					
	5 Violence/DV Acceptable Partner	0.139	0.211	.658**	.555**	-				
	6 Blame Partner as	0.116	.331**	.511**	.464**	.772**	-			
	7 Object	0.25	0.083	0.193	.289*	.332**	.516**	-		
	8 Relationship entitlement	0.127	.443**	.523**	.409*	.611**	.809**	.462**	-	
	9 Need for Control	0.15	.237*	.315**	.355**	.361**	.461**	.405**	.401**	-

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

Similar correlational analyses were conducted with each gender and the CTS2 subscales, as the CTS2 is the most commonly cited DV scale. Table 7c illustrates a consistency across the constructs related to DV in Study 3 (i.e., all participants showed similar responses to the DV attitudes and beliefs assessed by the DVPPT and the DV behaviors assessed in the CTS2). One important association to highlight from Table 7c, is that males tended to report engaging in all assessed DV behavior only when they also reported engaging in severe psychological aggression (e.g., '*destroyed something that belonged to their partner*'), and not minor aggression (e.g., '*stomped out of a room*'). For the females, there was a noticeable negative association between all assessed DV behavior and sexual coercion.

Table 7c. *Correlations of Males and Females for the CTS2 variables (N= 148)*

Gender	DV Variables	1	2	3	4	5	6	7	8
Males	1 Minor Psychological Aggression	-							
	2 Severe Psychological Aggression	.310**	-						
	3 Minor Physical Assault	.365**	.817**	-					
	4 Severe Physical Assault	.116	.677**	.705**	-				
	5 Minor Sexual Coercion	.353**	.607**	.681**	.494**	-			
	6 Severe Sexual Coercion	.153	.789**	.806**	.858**	.680**	-		
	7 Minor Injury	.059	.842**	.527**	.495**	.406**	.587**	-	
	8 Severe Injury	.155	.740**	.846**	.804**	.655**	.935**	.576**	-
Females	1 Minor Psychological Aggression	-							
	2 Severe Psychological Aggression	.521**	-						
	3 Minor Physical Assault	.710**	.454**	-					
	4 Severe Physical Assault	.688**	.737**	.645**	-				

5	Minor Sexual Coercion	-.027	.182	-.06	.12	-		
6	Severe Sexual Coercion	-.069	-.006	-.015	-.013	-.035	-	
7	Minor Injury	.502**	.388**	.656**	.618**	-.052	-.032	-
8	Severe Injury	.337**	.533**	.519**	.588**	.071	-.031	.520**

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

Following these correlational analyses an independent sample t-test (with *alpha* corrected at $p < .004$ for multiple comparisons, following the principles of Bonferroni adjustment), with the DVPPT subscales as the dependent variables was conducted to determine whether there were significant differences between male and female responses to the DVPPT. There were no significant differences found between the genders on the DVPPT subscales (see Table 7d).

Table 7d. Means, Standard deviations and t-scores of DVPPT Variables of Males and Females (Study 3)

Variable	Males			Females			<i>t</i>	<i>df</i>	<i>p</i>
	N	Mean	<i>SD</i>	N	Mean	<i>SD</i>			
CEDV-R	69	2.30	0.72	78	2.19	0.58	0.99	145	.33
RAR	69	1.74	0.60	78	1.70	0.57	0.44	145	.66
Proclivity	69	1.54	0.72	78	1.47	1.52	0.70	145	.49
Enjoyment	69	1.84	0.80	78	1.69	0.69	1.07	145	.29
Violence/DV behavior is Acceptable	69	1.71	0.79	78	1.66	0.62	0.49	145	.63
Partner Blame	69	2.14	0.91	78	2.06	0.82	0.54	145	.63
Partner as Object	69	1.97	0.92	78	1.73	0.91	.1.61	145	.11
Relationship Entitlement	69	2.42	0.92	78	2.35	0.90	0.45	145	.66
Need for Control	69	2.55	1.02	78	2.67	1.01	-0.69	145	.49
Financial Abuse	69	2.28	0.85	78	2.34	0.88	-0.43	145	.67
Psychological Abuse	69	2.29	0.99	78	2.09	0.83	1.33	145	.19
Physical Violence	69	1.84	0.80	78	1.87	0.75	-0.17	145	.87
Sexual Abuse	69	1.67	0.92	78	1.48	0.60	1.48	145	.14

Note. *SD* = Standard deviations, *df* = Degrees of Freedom

Similarly, the same analysis was conducted with the CTS2 subscales as the dependent variables (with *alpha* corrected at $p < .005$ for multiple comparisons, following the principles of Bonferroni adjustment), to assess whether there were any significant gender differences in the responses to the CTS2 subscales. Table 7e shows that, using the adjusted p value, there were no differences between male and female scores on the CTS2 subscales. Overall, these results suggest that there is gender neutrality in both the CTS2 and the DVPPT.

Table 7e. Means, Standard Deviations and *t*-scores of CTS2 Variables of Males and Females

Severity	Variable	Males			Females			<i>t</i>	<i>df</i>	<i>p</i>
		N	Mean	<i>SD</i>	N	Mean	<i>SD</i>			
Minor										
	Psychological Aggression	69	2.03	3.25	78	3.21	4.92	-1.69	145	.09
	Physical Assault	69	0.76	1.86	78	0.38	1.36	1.42	145	.16
	Sexual Coercion	69	2.01	3.98	78	0.56	1.85	2.89	145	.01
	Injury	69	0.70	2.50	78	0.54	1.94	0.43	145	.67
Severe										
	Psychological Aggression	69	0.57	2.00	78	0.03	0.10	1.105	145	.30
	Physical Assault	69	0.57	1.10	78	0.03	0.10	2.39	145	.02
	Sexual Coercion	69	0.42	1.35	78	0.00	0.03	2.71	145	.01
	Injury	69	0.34	1.24	78	0.03	0.13	2.19	145	.03
	Emotional Negotiation	69	9.51	7.59	78	11.97	8.39	-1.85	145	.07
	Cognitive Negotiation	69	7.39	6.59	78	10.51	8.25	-2.52	145	.01

Note. *SD* = Standard deviations, *df* = Degrees of Freedom.

2. Comparisons between male and female attitudes towards domestic violence. Next, the differences between gender scores on the scales measuring DV related constructs (i.e., the DVPPT) and DV behaviors (i.e., the CTS2) and aggression (i.e., the AQ) were explored. Table 7f shows that using the AQ, males

(coded as 1), compared to females (coded as 2), were more generally aggressive and engaged in more aggressive acts. However, there were no differences between males' and females' responses when assessed by the DVPPT and the CTS2. This shows that the DVPPT is comparable with the CTS2 in assessing DV-related constructs such as psychological and coercion/abusive behaviors and provides support for the construct validity of the DVPPT in measuring DV behavior. This is an important finding for the validation of the DVPPT as it also demonstrates that the newly developed DVPPT, which assesses DV related constructs (i.e., distorted beliefs held by DV offenders, tendencies towards angry rumination, reporting some exposure to DV related experiences, and having pro-attitudes towards DV, as illustrated by their enjoyment propensity and proclivity) is positively associated to a widely reputed and validated tool that assesses DV behaviors.

Table 7f. Means, Standard deviations and *t*-scores of DVPPT, CTS2 and the AQ Scales of Males and Females

Scales	Males			Females			<i>t</i>	<i>df</i>	p
	N	Mean	<i>SD</i>	N	Mean	<i>SD</i>			
DVPPT	69	2.02	0.63	78	1.94	0.50	0.81	145	.42
CTS2	69	2.07	1.87	78	2.28	1.60	-7.01	145	.49
AQ	69	2.58	0.58	78	2.29	0.49	3.34	145	< .01

Note. *SD* = Standard deviations, *df* = Degrees of Freedom

4.1.3. Assess the performance of the DVPPT as a predictor. Further analyses were conducted to determine how well the DVPPT performed as a predictor of related DV variables and/or behaviors (e.g., aggressive behaviors, DV behaviors assessed by the CTS2).

1.4.3.1. Assessing the DVPPT, CTS2 and Gender as predictors of aggressive behavior. As the CTS2 items are based on knowledge of male behavior, it is possible that the gender neutrality of the DVPPT makes it a better predictor of aggression perpetrated by either gender. So, to see if the DVPPT could be **more** useful than existing measures in assessing DV behavior (e.g. physical aggression), multiple regression analyses using the DVPPT, CTS2 and gender as predictors of aggressive behavior, were conducted. Standard regression analyses to assess whether gender and the total scores for the CTS2, DVPPT were predictors of (1) the AQ total score; and (2) the AQ subscales (i.e., anger, hostility, physical aggression and verbal aggression) was conducted.

In the first regression analysis, the independent variables included the total scores of the CTS2 and the DVPPT, gender, and the dependent variable was the AQ total score (see Table 8a). Findings show a model that accounts for 26% of the variance. Although all predictors were important in predicting generalised trait aggression, the DVPPT was the most important. This provides good initial support for the convergent validity of the DVPPT in predicting DV related behaviors (i.e., aggression). As previously mentioned, the AQ assesses behaviors that are conceptually linked to motivations, attitudes and behaviors of DV (e.g., anger being associated to a predictor of violence and displaced aggression), and so a conceptual relationship between the AQ constructs and the DVPPT is expected.

Table 8a. *Standard Regression Analyses for the DVPPT, CTS2 scales and Gender as predictors of the AQ score (N = 148)*

Scales	β	t	p
DVPPT	0.36	4.88	<.001
CTS2	0.22	3.05	<.01
Gender	-0.22	-3.1	<.01

Adj. R² = .26, df = 147

Similar analyses were conducted using the total scores for the DVPPT, CTS2 and gender as independent variables, and the aggression subscales as the dependent variables. The results are shown in Table 8b.

Table 8b. *Simple Regression Analyses for DVPPT, CTS2 scales and Gender as predictors on AQ subscales (N = 148)*

AQ subscales	CTS2 Scale			DVPPT Scale			Gender		
	B	SE B	β	B	SE B	β	B	SE B	β
1 Physical Aggression	0.07	0.02	.23**	0.28	0.07	.30***	-0.11	0.08	-.11
2 Verbal Aggression	0.02	0.03	.04	0.33	0.10	.27**	-0.20	0.11	-.15
3 Anger	0.10	0.03	.26***	0.45	0.08	.39***	-0.35	0.08	-.28***
4 Hostility	0.09	0.03	.21**	0.37	0.10	.29***	-0.31	0.11	-.22**

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

Table 8b, shows that the DVPPT and the CTS2 are both important predictors of the AQ subscales (i.e., constructs of aggressive behavior), whilst gender alone only shows that females are less likely to be physically aggressive (females were coded as 2). Overall, the regression analyses show that: (1) the newly developed

DVPPT is the most important predictor of **all** four forms of aggression assessed by the AQ (i.e., the AQ subscales); (2) the **CTS2** significantly predicts ‘anger’, ‘hostility’ and ‘physical aggression’, but not ‘verbal aggression’; and (3) **gender** is an important predictor for anger and hostility. This suggests that the DVPPT is a comparable DV tool when assessed alongside another key behavioral tool, as it is able to predict more aggressive behaviors associated with DV than the CTS2 scale (currently the most cited DV tool), and gender.

1.4.3.2. Comparing the DVPPT, AQ and Gender as predictors of CTS2 scores. Subsequent analyses examined if the DVPPT could be a better predictor of DV behavior, as assessed by the CTS2, compared to the AQ scale and/or gender. To assess this, a series of Hierarchical regression analyses were performed to examine whether the DVPPT, AQ and/or gender could predict DV behaviors assessed by the CTS2. Hierarchical regression was used as this allows variables to be controlled for in the analyses. The DVPPT was entered into step one, as, from the above analysis and because it includes more DV related constructs, it was expected to be the strongest predictor of DV. AQ and gender were then entered as predictors in Step 2 (see Table 8c).

Table 8c. Hierarchical multiple regression analyses for the DVPPT (step 1), Aggression (i.e., the AQ) and Gender (step 2) as predictors of DV (i.e., the CTS2)

	<i>B</i>	<i>SE</i>	β	<i>t</i>	<i>p</i>
Domestic Violence predicting CTS2 scores					
Step 1					
Constant	0.6	0.51		1.18	.24
DVPPT	0.79	0.25	0.26	3.2	<.01
Step 2					
Constant	-1.34	0.86		-1.57	.12
DVPPT	0.45	0.27	0.15	1.7	.09
AQ	0.85	0.28	0.27	3.05	<.01
Gender	0.36	0.27	0.11	1.34	.18

Adj. $R^2 = .07$ in Step 1; $\Delta R^2 = .06$ in Step 2, $df = 147$

From Table 8c it is clear that the DVPPT is an important predictor of the CTS2 in Model 1, and explained 6% of the variance. At Step 2, the DVPPT loses its predictive power when aggression and gender are included. This may be explained by the choice of wording used to assess the DV constructs and the response measures used. For instance, the DVPPT is a self-report measure that assessed the four main constructs using both Likert-type scales and vignettes. The questions are designed to tap into an individual's perception of their childhood, including any exposure to DV experiences in their childhood; the ways in which they process an anger inducing event and if they have angry ruminative tendencies; and how they perceive hypothetical situations that depict DV behaviors. It is expected that while this design of the DVPPT assesses these aspects of DV, it taps into subtle forms of predictive components, as compared to the aggression questionnaire that has been designed to

assess components specifically representing trait aggression, in a more overt manner. Simply put, the aggression questionnaire may overshadow the subtle nature of the DVPPT in assessing constructs related to DV, such as exposure to community violence (as a form of childhood exposure to DV).

Next, a standard regression was conducted to establish whether the DVPPT and AQ are predictors of the CTS2 DV constructs across males and females separately (see Table 8d).

Table 8d. *Standard Regression Analyses for the DVPPT and AQ scales as predictors of the CTS2 scale for males and females separately (N = 148)*

Scales	Males			Females		
	β	t	p	β	t	p
DVPPT	0.25	1.99	.05	-0.003	-0.03	0.98
AQ	0.22	1.76	.08	0.36	3.09	<.01
Adj. R ² = .14, df = 66			Adj. R ² = .13, df = 75			

The findings here show that the DVPPT significantly predicts DV tactics/behaviors assessed by the CTS2 for males and not for females. This could be a confound of the phrasing and/or the stereotypical attitudes participants may have towards male and female DV tactics, as the DVPPT assesses DV related constructs and proclivity, and does not explicitly assess concrete DV tactics or behaviors. This will be discussed further later on in this Chapter.

To further explore the construct validity and predictive qualities of the DVPPT, a series of standard regression analyses were conducted to examine whether the DVPPT, the AQ or gender would predict DV behaviors assessed by the CTS2

(e.g., physical injury, sexual coercion, psychological aggression) subscales. The DVPPT, AQ and gender were used as independent variables, and the CTS2 subscales were each used as dependent variables (See Table 8e).

Table 8e. Simple Regression Analyses for the DVPPT, AQ scales and Gender as predictors on the CTS2 subscales (N = 148)

Severity	Model	CTS2 subscales	AQ Scale			DVPPT Scale			Gender		
			B	SE B	β	B	SE B	β	B	SE B	β
Minor											
	1	Psychological Aggression	3.08	0.64	.40***	1.08	0.61	.14	1.89	0.62	.23**
	2	Physical Assault	0.75	0.25	.26**	0.71	0.24	.25**	-0.14	0.24	-.04
	3	Sexual Coercion	0.10	0.48	.02	1.91	0.47	.34***	-1.25	0.47	-.21
	4	Injury	0.32	0.37	.08	0.85	0.35	.22*	-0.03	0.36	-.01
Severe											
	5	Psychological Aggression	0.40	0.21	.17*	0.48	0.20	.21**	-0.09	0.20	-.04
	6	Physical Assault	-0.04	0.23	-.02	0.47	0.22	.19*	-0.5	0.22	-.18
	7	Sexual Coercion	0.01	0.15	.01*	0.45	0.15	.27**	-0.36	0.15	-.20
	8	Injury	0.09	0.14	.06	0.44	0.13	.29**	-0.24	0.13	-.14*

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

Findings show that the **DVPPT** is an important predictor for DV behavior such as: (1) severe psychological aggression, explaining 11% of the variance; (2) minor physical assault, explaining 19% of variance, and severe physical assault explaining 1% of the variance; (3) minor sexual coercion, explaining 18% of the variance and severe sexual coercion explaining 12% of the variance; and (4) minor and severe injury, each explaining 1% of the variance. Comparatively, the **AQ** is a significant predictor for: (1) minor psychological aggression explaining 24% of the variance and severe psychological aggression explain 11% of the variance; and (2) minor physical assault, explaining 19% of the variance; subscales from the CTS2 scale. Lastly, **gender** is a significant predictor for: (1) minor psychological aggression explaining 24% of the variance; and (2) severe physical assault explaining 1% of the variance; CTS2 subscales. Overall, the DVPPT is the strongest positive predictor for all the CTS2 variables, as indicated above, apart from minor physical assault and minor psychological aggression, for which the AQ is the strongest positive predictor. In addition, these findings indicate that males are more likely to use severe physical assault tactics during a DV incident and engage in acts that result in severe injury; whereas, females are likely to be more psychologically aggressive.

Next, in order to further assess the predictive power of the DVPPT as a predictor of the DV tactics/behaviors measured by the CTS2, a series of standard regression analyses were conducted to examine whether the DVPPT, would predict DV behaviors assessed by the CTS2 (e.g., physical injury, sexual coercion, psychological aggression) subscales for males and females separately. The DVPPT was the independent variable, and the CTS2 subscales were each used as dependent variables (See Table 8e), and the data set was split by gender.

Table 8f. Simple Regression Analyses for the DVPPT as predictor on the CTS2 subscales for males and females (N = 148)

Severity	Model	CTS2 subscales	<i>Males</i>			<i>Females</i>		
			DVPPT Scale			DVPPT Scale		
			<i>B</i>	<i>SE B</i>	β	<i>B</i>	<i>SE B</i>	β
Minor								
	1	Psychological Aggression	1.77	0.52	.34**	3.18	1.08	.32**
	2	Physical Assault	1.17	0.33	0.40**	0.80	0.30	.29*
	3	Sexual Coercion	3.10	0.67	.49***	0.30	0.43	.08
	4	Injury	0.83	0.48	.21*	1.21	0.43	.31**
Severe								
	5	Psychological Aggression	0.78	0.27	.33**	0.46	0.25	.21
	6	Physical Assault	0.73	0.38	.23	0.06	0.02	.30**
	7	Sexual Coercion	0.76	0.24	.36**	0.00	0.01	.03
	8	Injury	0.77	0.22	.39**	0.07	0.03	.25*

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

From Table 8f, findings show that the DVPPT significantly predicts minor psychological aggression, minor physical assault, minor injury and severe injury for both males and females. In addition, it significantly predicts minor and severe sexual coercion and severe psychological aggression among males and severe physical assault among females. These findings are discussed further later in this Chapter.

2. Study 4

Study 4 builds on Study 3 by including the measures not included in Study 3, to compare with the DVPPT. These measures were the Displaced Aggression Questionnaire to assess *displaced aggression*; the dissipation-rumination scale to assess *dissipation-rumination (ruminative tendencies likely to disappear without effect)*; and the Physical Aggressiveness and Violence scale to assess *motivation to engage in DV behavior*. This Study followed the same procedures as Study 3; took a similar length of time to complete and these measures were expected to either be conceptually related or unrelated to the constructs assessed by the DVPPT, just as measures were in Study 3.

2.1. Participants. One hundred and fifty participants, (Males, $n = 65$, 43.3%; Females, $n = 85$, 56.7%) were recruited using the same method as in Study 3 (see above). Participants' ages ranged between 18 and 65 years, (18-25 years, $n = 41$, 27.3%; 26-34 years, $n = 55$, 36.7%; 35-54 years, $n = 47$, 31.3%; 55-64 years, $n = 6$, 4%; 65 years, $n = 1$, 0.7%). Of these, 91% ($n = 137$) were heterosexual, 7.3% ($n = 11$) were bisexual, 0.7% ($n = 1$) were homosexual, and 0.7% ($n = 1$) preferred not to state their sexuality. The ethnicities of the participants were: 76% ($n = 114$) White Caucasian, 8.7% ($n = 13$) African American, 7.3% ($n = 11$) Hispanic, 4.7% ($n = 7$) Asian, 1.3% ($n = 2$) Native Americans, 0.7% ($n = 1$) Pacific Islander, and the remaining 1.3% ($n = 2$) did not state their ethnicity. Regarding relationship status,

30.7% ($n = 46$) reported being single and never married, 23.3% ($n = 35$) were married with children, 16% ($n = 24$) were living with their partners, 12.7% ($n = 19$) were in a relationship but not cohabiting, 10.7 ($n = 16$) were married without children, 5.3% ($n = 8$) were divorced, and 1.3% ($n = 2$) were widowed. For their participation, they were each awarded £1.26 (i.e., \$1.60).

2.2. Materials.

The DVPPT

As in Study 3, all the items in the DVPPT show that the scale has high internal consistency ($\alpha = .85$).

The Displaced Aggression Questionnaire (DAQ; Denson, Pedersen & Miller, 2006)

To assess displaced aggression, the Displaced Aggression Questionnaire (DAQ; Denson et al., 2006) was used. This scale was used because of the conceptual role that displaced aggression may have in an intimate relationship. For instance, associations between **displaced aggression** and angry rumination (as discussed in Chapter 1), specifically, that angry rumination prolongs aggressive priming (e.g., Denson et al., 2006), suggests that individuals who have general angry ruminative tendencies may be more likely to displace aggression on to their partners, than those who do not. Because of this, it was expected that the DAQ would be positively related to the angry rumination (i.e., RAR) measured by the DVPPT.

The DAQ is a 31-item scale made up of three components: ‘angry rumination’ (e.g., “*I keep thinking about events that angered me for a long time*”); ‘revenge planning’ (e.g., “*I have long living fantasies of revenge after the conflict is over*”); and ‘behavioral displaced aggression’ (e.g., “*Sometimes I get upset with a friend or family member even though that person is not the cause of my anger or*

frustration”). Responses were measured on a 7-point Likert-type scale, from 1 (*‘extremely uncharacteristic of me’*) to 7 (*‘extremely characteristic of me’*).

In addition, scores on the DAQ would provide some insight into other cognitive processes in relation to DV proclivity and individual differences. For instance, the relationships of childhood abuse (e.g., Whitfield et al., 2003), distorted thoughts about relationships (e.g., Pornari et al., 2013), and DV perpetration and proclivity. Therefore, it was also predicted that the ‘childhood exposure to DV’ (i.e., CEDV-R) and the ‘implicit theories’ subscales included in the DVPPT, would positively correlate with displaced aggression. Also, given that DV has historically been characterised by physical and/or verbal intimate partner aggression (e.g., Taft et al., 2007), it was predicted that the total score of the DVPPT would also positively correlate with displaced aggression.

The Dissipation-Rumination Scale (D-Rum; Caprara, 1986)

To assess whether the DVPPT reliably measured angry rumination (i.e., through the RAR subscale), the Dissipation-Rumination Scale (D-Rum; Caprara, 1986) was used. The D-Rum assesses more generally the degree to which individuals disregard or suppress (i.e., dissipate) negative feelings and retaliatory motivation induced by provoking situations (i.e., ruminate). The inclusion of this measure to compare with the DVPPT was based on the concept that irritability and emotional vulnerability may influence behavior, including aggressive tendencies (Caprara, 1989). Bearing this in mind, it was expected that the DVPPT, specifically the RAR subscale, would positively relate to the D-Rum; if indeed the DVPPT assessed angry ruminative tendencies as it did in Chapter three. The D-Rum included 20 items which assessed responses on a 6-point Likert-type Scale which ranged from 0 (*‘completely true for me’*) to 6 (*‘completely false for me’*). It was predicted that high-

dissipaters, (i.e., individuals that are able to shrug off/disregard negative feelings that make them want to retaliate), and low-ruminators would score lower on the DVPPT, particularly the angry rumination subscales, and vice versa (i.e., low-dissipaters and high-ruminators would score higher on the DVPPT).

The Proximal Antecedents to Violent Episodes Scale (PAVE; Babcock, Costa, Eckhardt & Green, 2004)

As the DVPPT measures DV behavior such as physical violence, and includes implicit theories which may influence the motivations and cognitive reasoning that underlie DV offending (Polaschek et al., 2009; Ward, 2000), the relationship between the DVPPT and the motivations of individuals for engaging in DV behavior was examined. To do this, the Proximal Antecedents to Violent Episodes Scale (PAVE; Babcock et al., 2004) was used. This scale was chosen as it highlights motives for physical violence that have been conceptually related to DV (e.g., Elmquist et al., 2014). If the DVPPT assessed physical violence as intended, then it should positively relate to participants' scores on the PAVE. The PAVE is made up of 30 items, measured on a 6-point Likert-type scale from 1 ('*not at all likely*') to 6 ('*extremely likely of me*') that assess three motives for violence: '*violence to control*', '*violence out of jealousy*' and '*violence following verbal abuse*'. Together the 3 constructs assess how physically aggressive an individual is likely to be. As these influential mechanisms are related to both DV proclivity and DV perpetration, it was predicted that PAVE scores would positively correlate with DVPPT scores.

Additionally, it was also interesting to determine which forms of DV (i.e., physical abuse, sexual abuse) would correlate with these three specific motives for violence, and whether there would be any associations between the PAVE and the

‘implicit theories’ subscales. For instance, it would be expected that an individual who uses ‘*violence to control*’ would hold the implicit theory ‘*need for control*’ or ‘*violence is acceptable*’, since both relate to a desire for control motivating DV. This idea is also supported by previous research linking DV abuse to dominance and a display of power (e.g., Ali & Naylor, 2013; Dutton & Nicholls, 2005; Jewkes, 2002).

2.3. Procedure. Participants completed an online survey that comprised of the DVPPT, DAQ, D-RUM and PAVE. Participants in Study 4 followed the same procedure as participants did in Study 3 (see above). All responses were completed individually and online, and the same information form, consent sheet and debriefing information was provided as in Study 3 (see Appendix G for the questionnaire used in Study 4).

2.4. Results. Following the same sequence of analyses as in Study 3, items were recoded and missing values replaced by the series mean of that item where necessary to identify: (1) the **concurrent convergent and discriminant construct validity using the total scores** and subscales and the DVPPT; and (2) the association between the proclivity, enjoyment propensity and implicit theories scales and the **DAQ and PAVE subscales**.

2.4.1. Concurrent Convergent and Discriminant Construct Validity.

2.4.1.1. DVPPT total scores in Study 4. Findings show that the total scores for the DVPPT and the comparison measures were positively correlated, as expected (See Table 9a). This illustrated the convergent validity of the DVPPT just as findings did in Study 3, as the constructs expected to relate with each other are indeed related.

Table 9a. *Correlations between the DVPPT and comparative scales in Study 4*

New Scale	Comparative Measures		
	PAVE	D-Rum	DAQ
DVPPT	.61**	.50**	.56**

*Correlations are significant at the 0.05 level (2-tailed). **. Correlations are significant at the 0.01 level (2-tailed).

2.4.1.2. Subscales of the DVPPT. As in Study 3, to further determine the construct validity of the DVPPT, the subscales of the DVPPT (i.e., the RAR, CEDV-R and PROCLIVITY_IT) were correlated with the comparative scales to assess how the constructs relate to each other. Table 9b reports these correlations, and shows that all comparative measures positively related to the subscales of the DVPPT. This supports the predictions that angry rumination, childhood exposure to DV, DV proclivity and implicit theories would all positively relate to the additional measures (e.g., the DAQ, displaced aggression).

Table 9b. *Concurrent Construct Validity Data (Correlations of total scores)*

Comparative Scales	<i>n</i>	α	DVPPT Subscales		
			RAR ($\alpha = .94$)	CEDV-R ($\alpha = .87$)	PROCLIVITY_IT ($\alpha = .92$)
PAVE	150	.96	.46**	.32**	.59**
D-Rum	150	.86	.56**	.26**	.45**
DAQ	150	.86	.69**	.32**	.49**

*. Correlations are significant at the 0.05 level (2-tailed). **. Correlations are significant at the 0.01 level (2-tailed).

To expand the above, correlations between the DVPPT subscales and the subscales of the comparative measures were conducted. However, the D-Rum was not included as this has no subscales. As expected, the subscales of the DVPPT correlated positively with the subscales of the DAQ and the PAVE. This shows that the DVPPT is able to assess displaced aggression and motivations to violence; both constructs that are theoretically related to DV (see Table 9c for correlations).

Table 9c. *Concurrent Construct Validity Data (Correlations of subscales excluding D-Rum)*

Scale	Subscales of comparative scales	<i>n</i>	α	DVPPT Subscales		
				RAR ($\alpha = .94$)	CEDV-R ($\alpha = .87$)	PROCLIVIT Y_IT ($\alpha = .92$)
DAQ	Angry Rumination	150	.95	.66**	.30**	.35**
	Revenge Planning	150	.96	.63**	.28**	.52**
	Displaced Aggression	150	.95	.53**	.28**	.44**
PAVE	Violence-Control	150	.92	.45**	.29**	.57**
	Violence-Jealousy	150	.88	.43**	.31**	.57**
	Violence-Verbal abuse	150	.93	.42**	.30**	.56**

*. Correlations are significant at the 0.05 level (2-tailed). **. Correlations are significant at the 0.01 level (2-tailed).

2.4.2. *DV proclivity, enjoyment and ITs with DAQ and PAVE*

subscales. Next, each of the individual constructs which make up the PROCLIVITY_IT subscale (e.g., proclivity, enjoyment, relationship entitlement)

were correlated with the subscales from: (1) the DAQ, and (2) the PAVE, to explore the relationship between DV proclivity, enjoyment propensity and specific implicit theories with DV, displaced aggression and violence constructs. Each is discussed separately next.

2.4.2.1. The DAQ with selected DVPPT scales. As expected the DVPPT PROCLIVITY_IT items all positively correlated with the DAQ subscales (e.g., angry rumination, revenge planning; and see Table 10a). This provides empirical evidence that undetected/not apprehended individuals, who share these distorted beliefs/implicit theories with DV offenders and who experience some enjoyment from DV are prone to engage in similar behavior, such as displaced aggression. There was, however, one non-significant correlation between those who held the ‘violence/DV behavior is acceptable’ implicit theory and the ‘angry rumination’ subscale of the DAQ. This suggests that there is a difference between those who hold the ‘violence/DV behavior is acceptable’ implicit theory and are likely to engage in angry rumination *towards their partners*, and those who hold this distorted belief but do not have *general* angry ruminative tendencies. It is also evidenced that angry rumination targeted towards an intimate partner is a unique construct that links to common DV behavior. The most positive relationship for individuals who hold the ‘violence/DV behavior is acceptable’ implicit theory is with displaced aggression, whilst the weakest relationship for individuals who hold the ‘violence/DV behavior is acceptable’ implicit theory was with revenge planning.

Table 10a. *Concurrent Construct Validity Data (Correlations between the DAQ subscales and enjoyment and implicit theories in the DVPPT)*

DVPPT constructs	<i>n</i>	Displaced Aggression ($\alpha = .95$)	Revenge Planning ($\alpha = .96$)	Angry Rumination ($\alpha = .95$)
Proclivity	148	.45**	.52**	.34**
Enjoyment	148	.38**	.48**	.26**
Violence/DV behavior is Acceptable	148	.60**	.41*	.25
Partner Blame	148	.36**	.45**	.28**
Partner object	148	.34**	.42**	.25**
Need for control	148	.28**	.35**	.26**
Relationship entitlement	148	.36**	.39**	.35**

*. Correlations are significant at the 0.05 level (2-tailed). **. Correlations are significant at the 0.01 level (2-tailed).

2.4.2.2. The PAVE with selected DVPPT scales. Findings also showed that all the selected DVPPT constructs correlated positively with the PAVE subscales, as expected (See Table 10b for correlations).

Table 10b. *Concurrent Construct Validity Data (Correlations between the PAVE subscales and enjoyment and implicit theories in the DVPPT)*

DVPPT constructs	<i>n</i>	Violence to CONTROL ($\alpha = .92$)	Violence out of JEALOUSY ($\alpha = .88$)	Violence following VERBAL ABUSE ($\alpha = .93$)
Proclivity	148	.49**	.52**	.51**
Enjoyment	148	.52**	.55**	.54**
Violence/DV behavior is Acceptable	148	.48**	.54**	.49**
Partner Blame	148	.51**	.53**	.50**
Partner object	148	.54**	.51**	.52**
Need for control	148	.41**	.37**	.38**
Relationship entitlement	148	.38**	.37**	.38**

*. Correlations are significant at the 0.05 level (2-tailed). **. Correlations are significant at the 0.01 level (2-tailed).

These findings show that individuals who report using violence to either control their partner, out of jealousy or following verbal abuse, are also likely to hold pro-attitudes towards DV behavior, and hold DV specific implicit theories. As general violence is strongly associated with DV, these finding also show good convergent validity of the DVPPT.

2.4.3. Male and female responses on the DVPPT. Further analysis was conducted to determine how well males' and females' scores on the comparison scales related to their scores on the DVPPT subscales (see Table 11a). Findings suggest that the measures are as applicable to females as they are to males and this supports the predictions that items are gender neutral.

Key associations to note are: (1) females who disclosed a history of childhood exposure to DV do not report DV proclivities, ruminative tendencies or any of the behaviors and ITs assessed; (2) males who disclosed a history of childhood exposure to DV also reported ruminative tendencies, DV proclivities, enjoyment in DV, viewing DV as acceptable and having blaming partner attitudes; and (3) relationship angry rumination and DV proclivity were both significantly positively associated with all the other DVPPT constructs for both males and females (whereas in Study 3, this was only found among males). Overall, these findings demonstrated good support for the gender neutrality of the DVPPT.

Table 11a. *Correlations of Males and Females in the DVPPT variables (N= 150)*

Gender	DV											
	variables		1	2	3	4	5	6	7	8	9	
Males	1	CEDV-R	-									
	2	RAR	.645**	-								
	3	Proclivity	.558**	.572**	-							
	4	Enjoyment	.384**	.465**	.782**	-						
	5	Violence/DV Acceptable Partner	.421**	.544**	.854**	.729**	-					
	6	Blame Partner as	.251*	.402**	.661**	.661**	.712**	-				
	7	Object	.239	.355**	.652**	.671**	.694**	.695**	-			
	8	Relationship entitlement	.132	.324**	.556**	.633**	.588**	.781**	.633**	-		
	9	Need for Control	.137	.350**	.542**	.693**	.528**	.510**	.548**	.641**	-	
Females	1	CEDV_R	-									
	2	RAR	.162	-								
	3	Proclivity	.094	.362**	-							
	4	Enjoyment	.050	.330**	.623**	-						
	5	Violence/DV Acceptable Partner	.122	.317**	.826**	.712**	-					
	6	Blame Partner as	.088	.337**	.726**	.713**	.713**	-				
	7	Object	.103	.421**	.668**	.802**	.690**	.715**	-			
	8	Relationship entitlement	.196	.323**	.487**	.482**	.549**	.727**	.520**	-		
	9	Need for Control	.179	.261*	.513**	.617**	.589**	.616**	.593**	.531**	-	

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

As in Study 3, these correlational analyses were followed up by conducting independent sample t-tests (with *alpha* corrected at $p < 0.004$ for multiple comparisons, following the principles of Bonferroni adjustment), with the DVPPT subscales. The DVPPT subscales were used as the dependent variables and gender was the independent variable. Findings showed that there were no significant differences between the genders on the DVPPT subscales (see Table 11b). Again, this supports the gender neutrality of the DVPPT.

Table 11b. Means, Standard deviations and *t*-scores of DVPPT Variables of Males and Females (Study 4)

Variable	Males			Females			<i>t</i>	<i>df</i>	p
	N	Mean	<i>SD</i>	N	Mean	<i>SD</i>			
CEDV-R	65	2.10	0.65	85	2.14	0.74	-0.31	148	.76
RAR	65	1.75	0.65	85	1.62	0.55	1.28	148	.20
Proclivity	65	1.54	0.70	85	1.45	0.55	0.85	148	.40
Enjoyment	65	1.72	0.81	85	1.55	0.77	1.31	148	.19
Violence/DV behavior is Acceptable	65	1.74	0.83	85	1.53	0.67	1.73	148	.09
Partner Blame	65	2.12	0.89	85	1.91	0.77	1.58	148	.12
Partner as Object	65	1.83	0.87	85	1.73	0.91	0.63	148	.53
Relationship Entitlement	65	2.33	0.96	85	2.26	0.88	0.40	148	.69
Need for Control	65	2.33	1.08	85	2.35	1.17	-0.10	148	.92
Financial Abuse	65	2.25	0.97	85	2.05	0.85	0.05	148	.18
Psychological Abuse	65	2.10	0.99	85	2.03	0.94	0.47	148	.64
Physical Violence	65	1.83	0.83	85	1.75	0.73	0.61	148	.55
Sexual Abuse	65	1.57	0.71	85	1.47	0.66	0.83	148	.41

Note. *SD* = Standard deviations, *df* = Degrees of Freedom

3. Overall Discussion

The results from studies 3 and 4 show the good construct validity of the DVPPT. As expected, across both studies, the DVPPT is positively correlated with the CTS2, AQ, DAQ, D-Rum and the PAVE, and provides good convergent construct validity for the DVPPT by showing that DVPPT constructs directly associate with similar theoretical constructs, therefore this shows that the DVPPT measures the constructs it was initially developed to measure. It is important to reiterate here that although the correlations between the CTS2 and the DVPPT were low, previous research has shown that when using scales to assess the differences between offenders and non-offenders, the differentiation between these two groups is difficult to identify when assessed in non-aroused conditions, for example, in the absence of affect-inducing or DV priming conditions (Dye & Eckhardt, 2000). In addition, the CTS2 assesses the presence, frequency and severity of concrete DV behaviors within a time period for both the perpetrator and victim, whereas the DVPPT is a self-report measure of attitudes towards DV-related constructs (i.e., childhood exposure to DV and angry rumination), beliefs individuals hold towards scenarios depicting DV behaviors and their proclivities towards these depicted behaviors. While the expected commonalities are in the DV related attitudes, behaviors and beliefs, given the non-offending sample, and the reliance on participants to actively engage with the scenarios in order to activate their motor imagery and place themselves in the situations presented, the low correlations here make sense.

In addition, as predicted, the DVPPT is negatively correlated with the Mini-IPIP which illustrates the discriminant construct validity of the DVPPT. These

findings are consistent with previous research (i.e., Ernst et al., 2007; Murrell et al., 2007; Roehl & Guertin, 2014; Vasquez et al., 2013) and suggests that the DVPPT measures constructs related specifically to DV (i.e., aggression, physical violence and angry rumination), and does not assess constructs unrelated to DV (i.e., trait personality).

The relationship between the subscales of the DVPPT and those of the comparative measures were examined in detail to assess how the predictive factors of the DVPPT (i.e., childhood exposure to DV) relate to specific behavior/attributes (e.g., psychological aggression, anger, neuroticism). As expected, all the subscales from the AQ, DAQ, PAVE and CTS2 (except 'negotiation') positively relate to the DVPPT subscales. However, among the personality traits, one relationship to note is that individuals with high levels of 'neuroticism' also reported having 'relationship angry rumination' tendencies and a history of 'childhood exposure to DV'. This suggests that individuals who reported sharing similar attitudes and beliefs with apprehended DV offenders (i.e., have DV proclivities), disclosed having a history of child abuse; and who, according to their self-reports, appear prone to engage in angry rumination, are also likely to have high levels of neuroticism. This is understandable given previous research showing that neuroticism predicts DV behavior among individuals with high levels of stress, who show more negative behavior, and particularly in males who show fewer positive problem solving skills (Hellmuth & McNulty, 2008).

Likewise, the observed gender differences between males and females in their ability to engage in 'cognitive negotiation' strategies reported here, supports this association. Further support for these findings suggest that there is an association

between poor self-regulation abilities and high levels of neuroticism (Morossanova, 2003). This could also help explain why known DV offenders have been found to struggle with poor emotional regulation (Carpenter & Stacks, 2009), since rumination has been used/termed as an emotion regulation strategy (De Lissnyder et al., 2012), as discussed in Chapter 1.

Next, the subscales from the CTS2, DAQ, and the PAVE were correlated with the DV proclivity, enjoyment propensity and implicit theories subscales of the DVPPT (i.e., the PROCLIVITY_IT). As expected, all the subscales from the DAQ, AQ and PAVE positively correlate with all the DVPPT variables. This is supported by previous research that has found an association between displaced aggression and DV behavior (e.g., Ferguson et al., 2008), and again illustrates the role of the ‘violence/DV behavior is acceptable’ implicit theory within a DV context among unapprehended individuals. However, as noted, the CTS2 ‘negotiation’ subscale did not relate to the DVPPT variables, as a similar construct to this is not directly/indirectly assessed by the DVPPT. In addition, and the ‘partner as object’ implicit theory did not link to any of the behavior items assessed by the CTS2, which may suggest that the individuals who participated may have been responding in a socially desirable manner and/or do not view their partners as objects and therefore could not relate to this item in the DVPPT when responding. Also, the ‘entitlement’ implicit theory is only associated to ‘psychological aggression’ and ‘sexual coercion’ behavior, which may reflect, to some extent strong feminist ideologies, in line with traditional gender role beliefs, even in a minority of participants.

These findings demonstrate that individuals who have good negotiation skills are less likely to show a proclivity towards DV behavior, or hold DV-related implicit theories. They also show that individuals who *objectify* their partners and have a sense of *relationship entitlement* do not engage in the forms of DV behavior assessed by the CTS2. These findings could be explained by the use of a non-offending population in this research, since past research has found male DV offenders hold these implicit theories (Weldon & Gilchrist, 2012). In addition, this also highlights the differences between individuals who may have a proclivity towards engaging in DV behavior, but who do not hold these *two* specific implicit theories. It could also be explained by the gender neutrality of the DVPPT as past research has shown that male objectification of women, alongside other factors (e.g., male sexual entitlement) is a predictor of DV (e.g., Jewkes, 2002; Kasturirangan, Krishnan, & Riger, 2004). Overall, these analyses show the DVPPT to be a useful measure that may be used to further understand the role of cognitive processes (i.e., implicit theories) in DV behavior for both men and women.

Following this, further analyses were conducted to explore: (1) gender and the DVPPT, to examine the gender neutrality of the DVPPT; and (2) the predictive power of the DVPPT, to show that it is a comparable measure to the existing DV tools by predicting common DV behavior using new DV predictor variables (e.g., angry rumination).

3.1. Gender. a comparison between the DVPPT and the CTS2 measures. The findings reported in this Chapter, as expected, showed that there were no significant differences in DV behavior, predictive factors and DV implicit theories between males and females. This shows that the DVPPT is a gender-neutral measure that

assesses predictive factors and proclivity towards DV for both males and females. More specifically, it shows that the revised items from the original Child's Exposure to DV scale (Edleson et al., 2008) assesses childhood abuse from *either* parent (i.e. male or female). It also shows that the revised items from the Anger Rumination Scale (Sukhodolsky et al., 2001) assesses ruminative tendencies towards an intimate partner who may be male or female. Lastly, this shows that the vignettes used to determine DV proclivity and DV implicit theories are appropriate for both males and females.

Comparatively, there were no differences between males' and females' responses in the CTS2 items. This was expected as the CTS2 is a tool developed based on historic assumptions that males were the offenders and females the victims. Although the items were phrased to assess DV tactics/behaviors within a couple regardless of the gender of the perpetrator, the nature/forms of the conflict tactics included were based on male perpetrators and female victims. It is important to note that the variables assessing sexual coercion and physical assault in the CTS2 were approaching significance for males, and this seems to support previous assertions that there are differences between the types of DV offending behavior males and females engage in (e.g., Hester, 2013). One explanation for this could be due to the way in which questions are stated to reflect explicit behavior historically shown to be displayed by male DV offenders, in line with the feminist perspective of DV.

Lastly, to ensure that the DVPPT was specifically assessing DV behavior, the overall differences between males and females were examined across the AQ, DVPPT and the CTS2. As expected, there were differences between males and

females in their levels of general trait aggression, but not between the DV behavior measured by the CTS2 or the DVPPT. This highlights the specificity of the DVPPT in targeting DV behavior, predictors and mechanisms specifically related to DV and not related to constructs such as generalised aggression. This does also suggest how our understanding of DV has somewhat shifted from being solely motivated by aggression, and aggressive role models in the household (e.g., Feldman, & Ridley, 1995), to being more complex (e.g., Capaldi et al., 2012).

This is important as it shows that the DVPPT is a new tool in assessing DV behaviors in a gender neutral manner, with good psychometric properties. However, it must be noted that the CTS2 assesses the number of times that conflict tactics (i.e., concrete acts) have been carried out by each partner, but it does not provide any further information (e.g., context, cognitive antecedents, individual factors such as their risk factors or past experiences). This is where the DVPPT has the potential to build on the CTS2's wide utility and reliability in assessing DV behavior, as it does consider an individual's cognitive, social, and behavioral tendencies; as well as assess self-report attitudes, beliefs, and behavioral tendencies towards predictors of DV from past childhood experiences.

3.2. The DVPPT as a predictor for DV behavior assessed by the CTS2. Finally, the DVPPT was shown to be a good predictor for generalised trait aggression, by its predictive strength for assessing physical and verbal aggression, anger and hostility. Comparatively, both the CTS2 and gender were predictors of the AQ total scale. However, they did not significantly predict all the forms of aggressive behavior measured by the AQ. For instance, the CTS2 did not predict verbal aggression, and gender did not predict physical or verbal aggression; unlike

the DVPPT. This suggests that the DVPPT is a measure which predicts common aggressive behavior associated with DV that both the CTS2 scale and gender cannot do. In this way, the DVPPT has the potential, following further experimental studies, to make an important contribution to the area of DV that current, popular measures such as the CTS2, do not.

Considering male and females' responses separately, further regression analyses illustrated that the DVPPT predicted CTS2 behaviors among males and not among females. These findings could be a result of the wording and nature of the DV tactics assessed by the CTS2, as they may be more commonly perceived as being perpetrated by males than females. This could be because the CTS2 was developed for heterosexual male perpetrators, and the DVPPT assesses DV constructs and proclivity across both genders. For example, the use of physical injury, sexual cohesion and physical assault are behaviors more commonly carried out by males, and in this research, this has been shown in Table 5c, when looking at the correlations between the DVPPT and the CTS2 for males and females.

In addition, the AQ significantly predicts DV tactics among females and is marginally significant for males. This suggests that females who reported acting aggressively through physical aggression, verbal aggression, anger or hostility, are also likely to engage in DV tactics assessed by the CTS2. This could be explained by research which suggests females are more likely to engage in more aggressive forms of DV (e.g., psychological aggression, hostility and anger), when compared to males who tend to be more overtly violent (e.g., Archer, 2004).

However, when considering the whole scale, the DVPPT scores were also able to predict the overall scores on the CTS2. However, the DVPPT lost predictive power when aggression and gender were controlled for. This could be due to the gender neutrality of the DVPPT. As stated previously, this could also be due to the differences in how trait aggression is assessed (i.e., direct questions specifically about aggression), whereas the DVPPT has different sections that tap into more subtle behaviors that conceptually link to aggression within a DV relationship, but may not be phrased in an overt way and therefore suppressed by the AQ. The DVPPT did however, significantly predict specific DV behavior (as assessed by the CTS2) that neither the AQ nor gender predicted (e.g., physical assault, severe psychological aggression, minor sexual coercion and injury).

Following this, additional regression analyses was conducted to determine whether the DVPPT predicted CTS2 subscales among males and females separately. The findings show that when considering gender separately, the DVPPT can tap into the more severe DV tactics used, that have been found to be practiced more by males than females and vice versa. For instance, males using more severe psychological aggression and physical assault has been widely research within DV (e.g. Bettencourt & Miller, 1996; Harned, 2001; Tjaden & Thoennes, 2000), and lends support to the Feminist perspective of DV, which uses violence and abuse to insert power and dominance within a relationship (Johnson, 2006). Comparatively, females within abusive relationships, where the male is the abuser, have been shown to display severe physical assault as a means of self-defence (Saunders, 1986).

On the whole, the DVPPT significantly predicted more DV related behavior than the AQ or gender did, and it was able to predict more subtle DV behavior (e.g.,

verbal aggression) than the CTS2 and these findings support the concurrent validity of the DVPPT, and highlights its potential value as a new DV measure. This may be due to the DVPPT being gender neutral, and its ability to assess more subtle and psychologically related motivations/antecedents, and cognitive processes involved in predicting DV behavior, that are not measured by the CTS2 or aggression scales. However, aggression is shown to be an important predictor of the CTS2, which could be accounted for by the fact that the AQ and the CTS2 both directly assess *aggression* (i.e., physical, verbal and psychological), and the DVPPT does not.

4. Conclusion

Overall, the DVPPT shows good patterns of convergent and discriminant validity across studies 3 and 4; it has presented new predictors of DV that increase the predictive power of assessing DV when compared to one of the most commonly cited DV measures; and the general trends reported here are also supported by past research, and are in line with the developers expectations considering the recruitment of non-offending samples. However, there is still a need to investigate the moderating and mediating variables of all the constructs of the DVPPT, such as DV myth acceptance, and traditional gender roles. To this end, the next Chapter presents an experimental Study conducted to further validate the DVPPT, by exploring the relationship between traditional gender roles, attribution of blame and domestic violence myth acceptance and domestic violence proclivity.

Chapter Five

Examining how traditional gender role beliefs, DV myth acceptance, and attribution of blame relate to DV proclivity and implicit theories.

The previous Chapter presented two validation studies that demonstrated the good convergent and discriminant construct validity of the DVPPT. Specifically, these studies show that the DVPPT is positively related to theoretically similar constructs (e.g., displaced aggression; physical violence), and is negatively associated to theoretically dissimilar constructs (e.g., the big five personality traits) as expected. Overall, these findings show good preliminary evidence for the conceptual validity and reliability of the DVPPT; its gender neutrality; and its ability to predict attitudes towards common aggressiveness and DV behavior. However, these studies only provide evidence for the scale's construct validity using conceptually related constructs. To assess the conceptual reliability of the DVPPT, it would also be useful to understand how individuals' attitudes and beliefs about behavior conceptually related to DV link to judgements about a DV situation. In turn, if the DVPPT has good conceptual reliability, it would be expected that those who hold favourable attitudes towards protagonists in a DV situation, would also show higher DV proclivity and hold pro DV implicit theories.

To assess the conceptual reliability of the DVPPT, **only** the behavioral and cognitive components of the DVPPT (i.e., DV proclivity and implicit theories) were used together with constructs (i.e. ambivalent sexism and myth acceptance) found to relate to judgements about related crimes (i.e., rape). This approach was taken given the strong parallels across the rape and DV literature, and studies involving the

validation of the rape proclivity scale that include behavioral constructs (e.g., Bohner, Jarvis, Eyssel & Siebler, 2005; Viki, Chiroro & Abrams, 2006).

Previous research has suggested that judgements individuals make are strongly influenced by information most salient to them at the time (Bohner et al., 1999). For instance, the most prevalent attitudes and beliefs linking to judgements about rape include the endorsement of strong sexist/gender role beliefs (i.e., Abrams, Viki, Masser & Bohner, 2003), and the acceptance of myths related to rape (e.g., Bohner, Eyssel, Pina, Siebler, Viki, 2009). Specifically, studies have found that having strong positive or negative sexist attitudes towards women in particular relate to judgements of blame in a rape or DV scenario (e.g., Taylor & Sorenson, 2005). Similarly, individuals who believe/endorse rape myths (e.g., ‘a woman who dresses in skimpy clothes should not be surprised if a man tries to force her to have sex’) have been found to blame the victim more and exonerate the perpetrator (e.g., Bohner et al., 2009), and have rape proclivities (e.g., Bohner et al., 2005). Therefore, in line with previous work, to further assess the conceptual validity of the DVPPT, it is important to assess whether individuals’ attitudes and beliefs link to their judgements of DV (i.e., behaviors depicted in DV scenarios in the ‘DV proclivity and implicit theories’ component of the DVPPT). Specifically, to determine whether their objective views/attitudes towards *DV myths*, *sexist/gender role beliefs* and *victim blaming* would relate to their DV proclivity and pro-DV implicit theories.

To this end, the current Chapter: (1) discusses how each of these behavioral constructs relate to DV and could predict DV proclivity; and (2) presents a Study assessing the relationship between these constructs, identifies any gender differences, and whether endorsing any of these behaviors predicts DV proclivity.

1. Behavioral constructs related to DV

1.1. Traditional Gender Role Beliefs. Gender role beliefs, intrinsically link to ambivalent sexism, and have been shown to be important predictors of DV (e.g., Berkel, Vandiver, & Bahner, 2004; Reyes et al., 2016). In brief, ambivalent sexism is when an individual holds both hostile and benevolent sexist beliefs simultaneously (Glick & Fiske, 1996). Hostile sexism is holding attitudes towards women that perceive them as seeking to control men (Glick & Fiske, 2001). Comparatively, benevolent sexism is holding views towards women that perceive them “as pure creatures who ought to be protected, supported and adored and whose love is necessary to make a man complete” (Glick & Fiske, 2001, p. 109). Ambivalent sexism can develop in response to changing social norms and the emergence of modern societies (Glick & Fiske, 1996). Common definitions of sexism have included hostility towards women and the endorsement of traditional gender roles (Glick & Fiske, 1997). Given this, it seems likely that individuals who hold strong traditional gender role beliefs are those most likely to also endorse strong sexist attitudes, and be high in ambivalent sexism.

Previous studies have found that hostile sexist attitudes predict DV more strongly than benevolent sexism (Anderson & Anderson, 2008). Previous work has also identified traditional gender role beliefs as predictors of DV and that dating couples (e.g., college students) are more likely to be violent towards each other than are married couples (e.g., Bryant & Spencer, 2003; Shook, Gerrity, Jurich, & Segrist, 2000). This suggests that specific attitudes that are formed about the roles males and females have in a relationship may be influencing their actions and highlights the

need for further exploration into gender role beliefs as factors that may influence attitudes towards DV perpetration. It has also been noted that the influence of gender role beliefs is strongest during adolescence (e.g., Feiring, 1999), as it is during this period that individuals' beliefs about gender roles in relationships are most supported and reinforced. Likewise, researchers have found that other harmful patterns of behavior and conflict resolution tactics in relationships, established during adolescence, are likely to carry over into adulthood, and this supports the intergenerational transmission theory (e.g., Exner-Cortens et al., 2013), discussed in Chapter 1.

Other studies have found that during adolescence some may develop traditional gender role scripts which support male dominance, which, in turn, influence views about gender roles in intimate relationships (Bem, 1993). This suggests that these scripts may also link to the development of pro-attitudes towards DV-related implicit theories (measured by the DVPPT). In addition, several researchers have linked traditional gender role beliefs to positive attitudes towards violence in relationships, particularly among males in heterosexual relationships (e.g., Bahner, 2004; Sugarman & Frankel, 1996). However, less research has examined the influence of gender role beliefs in other forms of DV (e.g., psychological abuse), and no studies to date, to the author's current knowledge, have assessed DV proclivity in relation to gender role beliefs.

1.2. DV Myth Acceptance Attitudes. Drawing on the parallels between DV and sexual violence (e.g., rape), an association between accepting traditional rape myths and holding victim blaming attitudes has been established across the literature (see Pollard, 1992 for review). Other research suggests that individuals,

who believe and accept rape myths, are more likely to blame rape victims, especially when they perceive victims as having violated traditional gender roles (e.g., Abrams et al., 2003). However, less research has focused on **DV myths**, and this paucity has been attributed to the existing controversy created by conflict between family violence researchers and feminist scholars in how they conceptualise interpersonal violence (e.g., Langhinrichsen-Rohling, 2010).

1.3. Attribution of Blame. Research examining the attribution of blame in DV, has shown that gender stereotypical views/ traditional gender role beliefs can impact judgements individuals make about who was to blame for the DV in given scenarios (Taylor & Sorenson, 2005). Similarly, links have been found between individuals who hold strong gender role beliefs, and victim blaming attitudes and (1) minimising the seriousness of the violence (e.g., Hilton, Harris & Rice, 2003; Willis, Hallinan & Melby, 1996); (2) having positive attitudes towards acting violently towards women (e.g., Berkel, Vandiver & Bahner, 2004); and (3) holding high levels of benevolent sexist beliefs (e.g., Viki & Abrams, 2002).

A few studies have used proclivity scales to assess the attribution of blame. For example, men with a high proclivity towards sexual harassment, tend to blame the perpetrator less, and victims more than those who have low proclivity for sexual harassment (Key & Ridge, 2011). However, to date, this concept has not been examined in DV research.

2. The Current Study: Study 5

In view of previous research regarding traditional gender role beliefs and DV related domains, the aim of the current Study was to examine gender role beliefs and

their links with *hostile* and *benevolent sexism*. Based on the previous work noted above, it was expected that in the current Study, a similar pattern of beliefs would emerge regarding hostile sexism and DV myth acceptance. That is, it was expected that individuals who hold strong gender role beliefs, would also share similar beliefs and attitudes to those identified in DV offenders (i.e., have DV proclivity and hold pro-DV implicit theories) and that these would be apparent across some of the common forms of DV (e.g., financial abuse/controlling behavior), as measured by the DVPPT.

Overall, the findings from this Study will contribute to previous research findings that have linked gender role beliefs (conceptualised through ambivalent sexism) to DV, specifically DV proclivity and pro-attitudes to DV-related implicit theories. Findings may also provide information about how gender role beliefs/ambivalent sexism link to gender behavior in DV. This is based on previous findings that suggest that males tend to instigate violence, and females simply react using violence as self-defence, in some DV instances (Allen, Swan & Raghavan, 2009) and so an examination of gender role beliefs may also contribute to our understanding of the DV dyad.

Therefore, the main aims of this Study were to explore: **(1)** gender differences in gender role beliefs, DV proclivity, DV myth acceptance and attribution of blame; and **(2)** identify whether gender role beliefs, the acceptance of traditional DV myths, and victim blaming attitudes were predictors of DV proclivity. It is important to reiterate that in this Study, only the DV proclivity and implicit theories subscale will be used, as mentioned previously in this Chapter. The Study was conducted in two parts, and all participants responded to both parts.

2.1. Method.

2.1.1. Participants. Two hundred and six participants (Males, $n = 103$, 49.5%; Females, $n = 102$, 49%; Other, $n = 1$, 0.5%) were recruited through the online crowd sourcing database, Prolific Academic. Participants' ages ranged between 18 and 63 years ($M = 32$, $SD = 10.29$); 88.8% ($n = 183$) of participants were heterosexual, 6.3% ($n = 13$) were bisexual, 3.4% homosexual ($n = 7$), and the remaining 1.5% ($n = 3$) preferred not to state their sexuality. Eighty-four percent ($n = 173$) of participants were White Caucasian, 11.7% ($n = 24$) Asian, 0.5% ($n = 1$) were African American, 0.5% ($n = 1$) were Native American, 0.5% ($n = 1$) were Hispanic, and the remaining 2.9% ($n = 6$) stated 'other'. A total of 24.3% ($n = 50$) of participants reported living with their partner; 24.8% ($n = 51$) were married with children; 25.7% ($n = 53$) were in a relationship but not cohabiting; and 7.8% ($n = 16$) were single and had never been married. Participants were awarded a total of £2 compensation for their participation in both parts of the Study.

2.2. Design.

A within subjects design, with gender role beliefs, assessed through ambivalent sexist beliefs (i.e., about men and women) as the independent variable and DV proclivity (assessed by **only** the DVPPT PROCLIVITY_IT subscale from the DVPPT), attribution of blame and DV myth acceptance as the dependent variables, was employed. All participants were asked to complete the Ambivalent Sexism Inventory (ASI; Glick & Fiske, 1996), and the Ambivalence towards Men Inventory (AMI; Glick & Fiske, 1999) at Time 1, and the selected subscales from the DVPPT, the Attribution of Blame scale (AB; Davies, Pollard & Archer, 2001), and

the DV Myth Acceptance Scale (DVMAS; Peters, 2007) at Time 2, which was approximately 7 days after Time 1. All measures will be outlined in the measures section next.

2.3. Measures.

The following measures were administered to all participants across two phases: Time 1 and Time 2, to reduce priming effects across the measures.

The Domestic Violence Proclivity and Predictors Tool (DVPPT; Ruddle et al., in press)

The section of the DVPPT that formed the 'PROCLIVITY_IT' subscale (see Chapter 4) was used to assess the relationship between traditional gender role beliefs and DV proclivity and DV implicit theories. The other subscales of the DVPPT (i.e., CEDV-R and RAR) were not included in this Study since the aim of this Study was to examine solely the relationship between gender role beliefs, beliefs about DV and blame attribution. In addition, although previous DV experiences and angry ruminative tendencies are related to the attitudes and beliefs individuals form about DV, they are not expected to be inherent to the judgement process focused on in this Study. The PROCLIVITY_IT subscale from the DVPPT showed high internal reliability in this Study ($\alpha = .93$).

The Ambivalent Sexism Inventory (ASI; Glick & Fiske, 1996)

The ASI comprised of 22 items, made up of two 11 item sub-scales which assessed *benevolent sexism* and *hostile sexism*. Responses were assessed on a 5-point Likert-type scale ranging from 1 ("strongly agree") to 5 ("strongly disagree"). An example item for hostile sexism is "women seek to gain power by getting control

over men”; and for benevolent sexism: “many women have a quality of purity that few men possess”. This scale was chosen as it is one of the most cited scales that measures traditional gender role beliefs about women (e.g., Chen, Fiske, & Lee, 2009; Viki & Abrams, 2002). The total reliability of the hostile sexism dimension was good ($\alpha = .87$), as was the benevolent sexism dimension ($\alpha = .83$). Overall this measure was highly reliable ($\alpha = .87$).

The Ambivalence toward Men Inventory (AMI; Glick & Fiske, 1999)

The AMI was selected to assess if female DV perpetrators hold ambivalent sexism attitudes towards men. The measure is comprised of 20 items, split into two subscales measuring *Hostility towards Men* (e.g., “when men act to ‘help’ women, they are often trying to prove they are better than women”); and *Benevolence towards Men* (e.g., “men are more willing to put themselves in danger to protect others”). Responses were assessed using a 5-point Likert-type scale ranging from 1 (“strongly agree”) to 5 (“strongly disagree”). The reliability of the hostile towards men subscale was good ($\alpha = .79$), as was the benevolence towards men subscale ($\alpha = .83$). Overall this measure was highly reliable ($\alpha = .86$).

Attribution of Blame Scale (ABS; Davies et al., 2001)

Attribution of blame was measured using 8 items taken from the original series of 14 questions adapted from Davies, Pollard and Archer (2001). The selected 8 items made up three subscales: *assault seriousness* (reliability: $\alpha = .81$) *victim culpability* (reliability: $\alpha = .39$); and *perpetrator culpability* (reliability: $\alpha = .90$). For this Study, these items were rephrased to relate to the scenarios from the DVPPT. An example of an item from this scale used to assess ‘victim culpability’ was rephrased

from “*Sarah was responsible for what happened. How much do you agree?*” to “*Your partner was responsible for what happened. How much do you agree?*” Responses were assessed on a 7-point Likert-type scale that ranged from 1 (“*totally*”) to 7 (“*not at all*”), as recommended by the developers of the scale.

The Domestic Violence Myth Acceptance Scale (DVMAS; Peters, 2008)

The DVMAS consists of 18 items assessing the degree to which an individual endorses DV myths. Responses were assessed on a 7-point Likert-type scale that ranged from 1 (“*strongly agree*”) to 7 (“*strongly disagree*”). This scale was chosen as it is based on traditional gender roles (i.e., the questions are not gender neutral and assume a male perpetrator and female victim). Example items included: “*Making a man jealous is asking for it*”; “*If a woman doesn’t like it, she can leave*”. The reliability of the DVMAS in this Study was shown to be high ($\alpha = .91$).

The Impression Management Scale (IM; Paulhus, 1991)

The Impression Management Scale (IM; Paulhus, 1991) of the Balanced Inventory of Desirable Responding (BIDR; Paulhus, 1988, 1991) was used to measure desirable responding, as traditional gender role beliefs could be susceptible to bias responding. It is comprised of 8 items that assess individuals’ levels of social desirable responses. Responses were made using a 7-point Likert-type scale that ranged from 1 (“*strongly agree*”) to 7 (“*strongly disagree*”). Example items included: “*I always declare everything when asked by police and custom officials*”; “*I never take things that don’t belong to me*”. The scale had reasonable reliability ($\alpha = .67$).

2.4. Procedure. The same ethical guidelines were adhered to as outlined in Chapter 4. All participants completed the above measures online. They were first

presented with an information sheet (see Appendix H), and asked to indicate their consent. Each participant was then presented with standard demographic questions, followed by the ASI and AMI scales. Approximately 7 days later, participants returned to complete the second part of the Study to allow time for the participants to forget about the content and themes from these scales, to reduce priming effects on their interpretation/responses to the DVPPT and on their attribution of blame responses. At this stage, the same participants were asked to indicate their continued consent, and complete the IM, the PROCLIVITY_IT subscale of the DVPPT, ABS, and DVMAS (as previously described). Following completion of these measures, participants were thanked and debriefed, with helpline support numbers included for both the UK and the USA (see Appendix I). Screening procedures were carried out to ensure the same participants completed both parts (i.e., ensuring there are no duplicate ID codes used by participants on Prolific Academic).

2.5. Analyses. All the same data cleaning procedures were conducted as in previous studies. All measures were recoded to ensure all high values (i.e., close to 5 and above) resembled strong agreement and/or endorsement of beliefs (e.g., high proclivity, endorse DV myth acceptance beliefs). Correlational analyses were conducted to determine the associations among the variables and across genders. The gender differences among males and females were explored using an independent sample t-test to assess: (1) how much males and females differed across all variables in the Study; and (2) examine whether the gender-neutral quality of the PROCLIVITY_IT subscale from the DVPPT was upheld. Following this, a series of regression analyses were conducted that assessed (1) the predictors of DV proclivity; and (2) the predictors of the DV proclivity and implicit theories subscale (as in

Chapter 4). Therefore, traditional gender role beliefs, DV myths and attribution of blame were entered as independent variables, and DV Proclivity (i.e., the proclivity questions across all four DV scenarios) and DV PROCLIVITY_IT (i.e., the proclivity and implicit theory questions across all four DV scenarios) as dependent variables (which was the PROCLIVITY_IT subscale separated accordingly for this analyses).

2.6. Results.

2.6.1. Relationships between all variables in the ASI and AMI. Composite variables were computed for all the constructs (e.g., hostile sexism towards women, DV myth acceptance, DV proclivity), and examined for correlations. Table 12a shows that individuals who reported DV proclivity and DV-related implicit theories (i.e., PROCLIVITY_IT), appear to have strong traditional gender role beliefs towards both males and females, support DV myths and blame victims for the DV. Comparatively, when considering **only** DV proclivity, those who report a proclivity towards DV behavior (i.e., DV PROCLIVITY) also indicate they would blame the perpetrator less for the DV than they would the victim.

Table 12a. Correlations across the variables in the ASI and AMI (N = 206).

Variables	1	2	3	4	5	6	7	8	9	10
1 Hostile Sexism towards women	-									
2 Benevolent Sexism towards women	.47**	-								
3 Hostility towards Men	.48**	.56**	-							
4 Benevolence towards Men	.68**	.72**	.53**	-						
5 DV Proclivity	.40**	.24**	.26**	.38**	-					
6 PROCLIVITY_IT	.55**	.31**	.35**	.49**	.80**	-				
7 DV Myth Acceptance	.57**	.44**	.36**	.60**	.53**	.65**	-			
8 Assault Seriousness	-.14*	-.12	-.06	-.11	-.36**	-.37**	-.32**	-		
9 Perpetrator Culpability	-.46**	-.22**	-.26**	-.43**	-.56**	-.71**	-.58**	.58**	-	
10 Victim Culpability	.37**	.16*	.27**	.37**	.37**	.54**	.34**	.10	-.29**	-

*. Correlations are significant at the 0.05 level (2-tailed). **. Correlations are significant at the 0.01 level (2-tailed).

For a closer inspection of these associations, similar correlational analyses were conducted with each gender and the subscales assessing *Traditional Gender Role beliefs* and *blaming attitudes* (see Table 12b for correlations).

Table 12b. *Correlations of Males and Females in the Traditional Gender Role Beliefs and Attribution of Blame variables (N= 206)*

Gender	Variables	1	2	3	4	5	6	7
Males	1 Hostile Sexism towards women	-						
	2 Benevolent Sexism towards women	.415**	-					
	3 Hostility towards Men	.473**	.489**	-				
	4 Benevolence towards Men	.757**	.692**	.480**	-			
	5 Assault Seriousness	-.150	-.041	-.017	-.163	-		
	6 Perpetrator Culpability	-.443**	.128	-.185	-.473**	.662**	-	
	7 Victim Culpability	.396**	-.131	.299**	.410**	.184	-.154	-
Females	1 Hostile Sexism towards women	-						
	2 Benevolent Sexism towards women	.519**	-					
	3 Hostility towards Men	.546**	.675**	-				
	4 Benevolence towards Men	.582**	.740**	.619**	-			
	5 Assault Seriousness	-.124	-.198*	-.111	-.024	-		
	6 Perpetrator Culpability	-.464**	-.320**	-.350**	-.361**	.467**	-	
	7 Victim Culpability							-

7	Victim						-	-
	Culpability	.374**	.235*	.209*	.353**	-.024	.438**	-

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

The associations among males and females with the ambivalent sexism composites (assessing traditional gender roles) and attribution of blame variables suggest that there are differences between males and females in their gender role beliefs and attribution of blame. Both males and females who reported holding hostile sexist attitudes towards men and women also blamed the victim in the DV scenarios. Interestingly, females who held ambivalent sexist views (i.e., both hostile and benevolent sexist views towards both men and women) reported blaming the perpetrator significantly less, and blaming the victim significantly more. Among the males, those who reported having benevolent sexist views towards women did not report significant blaming attitudes towards either the victim or the perpetrator. However, males that reported having benevolent attitudes towards men, also blamed the perpetrator less and the victim more.

2.6.2. Gender differences among all variables. Following this, the means, standard deviations and t-scores for the variables of the males and females were conducted. Table 12c shows the variables in which there was a significant difference between male and female responses. Specifically, there were differences between males' and females' benevolent sexist attitudes towards women; their DV myth acceptance; how much they blame the victim; and their sense of entitlement implicit theory. Specifically, males report having more benevolent sexist beliefs towards women and endorse more DV myths than females. Comparatively, females

have more victim blaming attitudes and more feelings of relationship entitlement in DV situations, compared to males.

Table 12c. Means, Standard deviations and *t*-scores across all variables for Males and Females

Variable	Males			Females			<i>t</i>	<i>df</i>	<i>p</i>
	N	Mean	<i>SD</i>	N	Mean	<i>SD</i>			
Benevolent Sexism towards women	103	3.09	.88	102	2.84	.85	2.03	203	< .05
DV Myth Acceptance	102	3.18	1.11	101	2.83	1.00	2.39	201	< .05
Victim Culpability	102	3.70	.65	101	3.89	.63	- 2.09	201	< .05
Entitlement	102	2.37	.94	101	2.65	.79	- 2.32	201	< .05

Note. *SD* = Standard deviations, *df* = Degrees of Freedom

2.6.3. Traditional gender role beliefs as predictors of DV Proclivity

compared to DV myth acceptance and victim culpability. Subsequently, a standard regression analysis was conducted to determine whether gender role beliefs (i.e., hostile sexism, benevolent sexism), DV myth acceptance and victim culpability were predictors of DV proclivity controlling for desirable responding, and gender (coded: males as 1, females as 2). The independent variables were the gender role belief subscales (e.g., hostile sexism towards women, benevolent sexism towards women etc.), DV myth acceptance total score, victim culpability subscale, gender and the

impression management total score. The dependent variable was the DV Proclivity subscale. The results of this analysis are shown in Table 13a.

Table 13a. *Standard regression analyses for the Gender role belief, DV Myth acceptance, Victim culpability, Gender and Impression Management subscales as predictors of DV Proclivity subscale*

	β	t	p
(DV Proclivity)			
DV Myths	.42	5.30	<.001
Victim culpability	.21	3.06	<.01
Impression Management	-.15	-2.35	<.05
Gender	.07	1.16	.25
Hostile Sexism towards women	.08	.86	.39
Benevolent Sexism towards women	.00	.01	.99
Hostility towards men	-.01	-.12	.90
Benevolence towards men	.00	.03	.98
Adj. R ² = .36, df = 194			

In the regression model shown in Table 13a, DV myth acceptance and Victim culpability are important predictors of DV proclivity in a model which explains 36% of the variance. The regression also shows that when participants are prone to responding in a socially desirable manner their DV proclivity is reduced. These findings suggest that individuals who endorsed DV myths and blame their partners in the DV vignettes have more proclivities for engaging in the DV behavior depicted

in the scenarios (i.e., physical violence, sexual abuse, controlling behavior and psychological abuse).

2.6.4. Traditional gender role beliefs as predictors of DV Proclivity and implicit theories compared to DV myth acceptance and victim culpability.

Following this, for comparison, a similar standard regression was conducted with the DV PROCLIVITY_IT composite (i.e., proclivity and implicit theories combined) as the dependent variable and the same independent variables as in the previous regression analysis (see Table 13b for results).

Table 13b. *Standard regression analyses for the Gender role belief, DV Myth acceptance, Gender, Impression Management and Victim culpability subscales as predictors of DV Proclivity and Implicit Theories subscale*

	β	t	p
(DV PROCLIVITY_IT)			
DV Myths	.45	6.97	<.001
Victim culpability	.31	5.44	<.001
Impression management	-.09	-.55	.58
Gender	.09	1.74	.08
Hostile Sexism towards women	.18	2.50	<.05
Benevolent Sexism towards women	-.02	-.29	.77
Hostility towards men	.02	.24	.81
Benevolence towards men	.01	.07	.95
Adj. R ² = .57, df = 188			

In the regression model displayed in Table 13b, hostile sexist attitudes, DV myth acceptance, victim culpability and gender are important predictors of DV PROCLIVITY_IT, in a model that explains 57% of the variance. Interestingly, socially desirable responding is not an important predictor. Overall, these findings suggest that individuals who hold hostile sexist attitudes towards women, accept DV myths, hold strong victim blaming attitudes and are male are likely to have more DV proclivities and to hold pro-attitudes towards DV-related implicit theories.

3. Overall Discussion

Previous research has explored associations between traditional gender role beliefs and gendered DV behavior (i.e., male perpetrator, female victim), but as yet, no research, known to the current author, has investigated how these beliefs relate to (1) DV myth acceptance; (2) DV proclivity and DV-related implicit theories; and (3) attribution of blame in gender neutral DV situations. Exploring how these constructs relate to each other was one aim of the current Study. The results from Study 5 show that there is a relationship between individuals who hold strong traditional gender role beliefs, shared similar attitudes with DV offenders, endorsed DV myths and had high DV victim blaming attitudes. The link between traditional gender role beliefs and DV is supported by previous work, that showed individuals with strong gender role beliefs were more prone to condone DV perpetration than those who were not (e.g., Lichter & McCloskey, 2004). These associations found within this sample highlight the importance of intersectionality of DV attitudes, as this suggests individuals from different ethnicities, genders, and sexualities who reported holding strong gender ideological beliefs, also reported endorsing DV myths, having victim blaming attitudes and have DV proclivities, may also hold pro-attitudes towards

dominance and power over victims who do not conform to the ideological/stereotypical traditional roles of male and females. Therefore, this reiterates the importance of considering race, sexuality and gender when interpreting findings in DV research. Likewise, these associations show how ingrained these attitudes presumably are across different social domains, illustrating how DV attitudes can exist across all stages of the nested ecological model. For instance, the role of an individual's family in introducing and reinforcing attitudes towards gender roles, the influence of peers in reinforcing these, and the role of affiliations and the media in facilitating blaming attitudes towards victims of DV. In addition, other researchers support these correlations by illustrating traditional gender role beliefs to significantly predict intimate partner aggression (e.g., Berkel, Vandiver, & Bahner, 2004); and those who endorsed DV myths tended to attribute more blame to victims than perpetrators (Yamawaki, Ochoa-Shipp, Pulsipher, Harlos, & Swindler, 2012).

Following this, among the gender role beliefs assessed by the ASI and AMI (i.e., hostile and benevolent sexist attitudes towards men or women), the current Study shows that individuals who hold hostile sexist beliefs regarding women, report having a proclivity towards DV behavior, and also hold implicit theories related to DV offending. This is supported by previous findings that hostile sexist attitudes significantly predict DV when compared to benevolent sexist beliefs (Anderson & Anderson, 2008). This association also supports both the nested ecological model and the intersectionality perspective, as conceptually, individuals brought up in a household where strong traditional views about how women should behave may develop, and subsequently become reinforced through various socialisation process. Likewise, closer investigation into this sample could suggest that these attitudes may

be instilled more in some cultures than others, as suggested in previous work (e.g., Sokoloff & Dupont, 2005).

Following this, the second aim of this Study was to identify gender differences between DV proclivity, DV myth acceptance, traditional gender role beliefs, and blame attribution. Here, males report more benevolent sexist attitudes towards women and higher acceptance of DV myths, when compared to women. It is understandable that these attitudes would be more prevalent in males than females, as researchers have found that males who view females more benevolently, and hold strong traditional gender stereotypes, view themselves as providers and women as dependents, and this could lead to male dominating DV behavior (Glick & Fiske, 1996). In addition, women have been shown to comply more with benevolent sexist ideologies when faced with male threat, as this is a way to gain male protection (Exposito, Herrera, Moya, & Glick, 2010), and if this is a familiar experience for men, then it may help support their benevolent sexist views of women.

Comparatively, females had stronger victim blaming attitudes, and held a stronger sense of entitlement following the DV scenarios, when compared to males. These differences could be explained by research suggesting that women who hold traditional gender role attitudes are also likely to blame victims of sexual violence (Hillier & Foddy, 1993). Again, this finding supports the nested ecological model in instilling and reinforcing traditional gender roles across all social domains, resulting in blaming attitudes towards victims of DV. Other studies have also shown associations between individuals who hold traditional gender role beliefs and victim culpability, specifically victims of rape (e.g., Viki & Abrams, 2002). In addition, previous work has found violence during courting relationships to be instigated more

by females than males (Fitzpatrick, Salgado, Suvak, King, & King, 2004), which could be a way in which some women exert their perceived role in the relationship, and could be an expression of the relationship entitlement implicit theory.

Interestingly, this may also be due to the majority of females in the sample being Caucasian, and may be different among females from different ethnicities (e.g., Indian, Asian, African), where male dominance and traditional gender roles may be more ingrained (e.g., Kasturirangan, Krishnan & Riger, 2004).

Subsequently, traditional gender role beliefs were examined as predictors of DV proclivity. This was important to assess as DV literature has reported links between gender role beliefs and positive attitudes towards violence against women (Lichter & McCloskey, 2004); it has been identified as a predictor for DV (Reitzel-Jaffe & Wolfe, 2001); and associated with blaming the female DV victim and exonerating the male perpetrator (e.g., Hillier & Foddy, 1993). However, there has been no research into how gender role beliefs influence an individual's proclivity towards engaging in DV behavior, or sharing similar attitudes and beliefs as those of apprehended DV offenders.

The justification for including traditional gender role beliefs in both regression analyses is supported by previous work that suggests these gender beliefs are a product of early socialisation and therefore are likely to have fed into the development of DV-related implicit theories (Birns, Cascardi, & Meyer, 1994). In this instance, the chance of developing DV proclivities and pro DV perpetration attitudes is increased if this exposure continued into the teenager phase, and if these distorted ideological beliefs were reinforced by their peers (Reitzel-Jaffe & Wolfe, 2001). In the first regression analysis, assessing the predictors of DV PROCLIVITY,

the endorsement of DV myths and victim culpability were found to be significant positive predictors of DV proclivity, and social desirable responding was a significant negative predictor. These findings are expected given the parallels with the rape proclivity, rape myths and victim blaming attitudes research (e.g., Bohner, Eyssel, Pina, Siebler & Viki, 2009; Viki & Abrams, 2002), that this Study is modelled on.

Subsequently, for comparison the same regression analysis was conducted to determine the predictors of DV proclivity and DV implicit theories combined (DV PROCLIVITY_IT). In this analysis, DV myths, hostile sexist beliefs, victim culpability and gender are shown as important predictions of DV PROCLIVITY_IT. This is supported by previous studies that have shown men who strongly adhere to traditional gender role beliefs are more aggressive to their partners than those who do not (Reidy, Shirk, Sloan, & Zeichner, 2009), which could be related to their attitudes towards blame and DV myths.

Other research has found links between individuals who hold strong ambivalent sexist attitudes, and the likelihood that this will blame the victim and exonerate the perpetrator (e.g., Valor-Segura, Exposito, & Moya, 2011). Also, extensive research has alluded to hostile sexist attitudes being one of the main ideological predictors of aggression towards women (Valor-Segura et al., 2011). In addition, other researchers have noted that children exposed to DV during childhood are more at risk of developing deleterious patterns of social behavior, as well as distorted beliefs about gender roles (Graham-Bermann & Brescoll, 2000). This link between exposure to DV and the presence of distorted cognitions could explain why traditional gender role beliefs are important predictors of DV proclivity and attitudes

towards DV-related implicit theories (i.e., DV PROCLIVITY_IT) more than when only proclivity (i.e., DV Proclivity) was considered.

The origins of the beliefs identified as predicting DV proclivity and associated implicit theories are not explained in the current Study. However, family systems theorists have observed that it is not only within the family that gender role ideology and distorted beliefs are constructed. Exposure to extended family members and cultural norms also reinforce these negative views about how women should be treated (Graham-Bermann & Brescoll, 2000), which support the nested ecological model of DV. This is also supported by the intergenerational transmission theory for DV (as discussed in Chapter 1). So, it could be that the important predictors identified in this Study are longstanding beliefs, generated by socialisation processes. Nonetheless, the current findings highlight the importance of specific DV distorted cognitions and their association to traditional gender role beliefs.

4. Conclusion

In summary this Study has demonstrated (1) the role of traditional gender role beliefs as an additional predictor of DV proclivity and DV proclivity and implicit theories; (2) shown that DV proclivity, DV myth acceptance and victim culpability attitudes are associated, which, according to this author's knowledge, has not been assessed previously; (3) highlights the possibility that traditional gender role beliefs developed during childhood can be reinforced throughout an individual's life and may influence the views they hold about DV offending, illustrating the nested ecological model and the importance of intersectionality in DV; (4) shows gender can predict DV PROCLIVITY_IT, but not DV Proclivity, which could be an artefact of more in depth cognitive processing the individual engages in while

reading the DV vignettes in relation to the additional IT questions, as previously discussed. Overall, this Study also identifies traditional gender role beliefs as an additional predictor of DV proclivity, alongside the findings regarding childhood exposure to DV, and angry rumination (as discussed in Chapter 2) and overall, the findings from the current Study add to the utility of the DVPPT. However, for the tool to reach its maximum potential it needs to be applicable to not only men and women, *but* to men and women of differential learning abilities. This is the topic of the following Chapter.

Chapter Six

Developing the DVPPT Scale for application to differential literacy levels

Conducting research for a thesis such as this involves a good deal of learning and the author's current experience is no exception. Feedback from participants involved in the earlier studies in this thesis, indicated that participants who have dyslexia found it difficult to participate. This was a factor that was not considered in the original construction of the DVPPT, but there are some compelling reasons why the scale should be made accessible to individuals who have learning disabilities such as dyslexia, and conditions that may impair literacy abilities such as Attention Deficit Hyperactivity Disorder (ADHD) and dyspraxia. Not least of these is the use of online platforms to examine phenomena such as DV, and which may inadvertently exclude those with learning difficulties and consequently bias findings.

According to recent findings dyslexia is the most common form of learning disability, having a prevalence of 10% in the UK (British Dyslexia Association, 2018), and as high as 17% across other researched samples, for example Germany (e.g., Shaywitz & Shaywitz, 2005). A learning disability has been defined as “a disorder in one or more of the basic psychological processes involved in understanding or in using language, spoken or written, which may manifest itself in an imperfect ability to listen, think, speak, read, write, spell, or do mathematical calculations” (p.386, Dhanda & Jagawat, 2013). More holistically, “learning disabilities are neuropsychological disorders characterised by specific processing problems” (p. 545, Seidman et al., 2001), for which dyslexia is caused by phonological processing deficits (Pennington et al., 1993). Similarly, most learning

disabilities are neurodevelopmental conditions, whereby considering a psychoeducational approach, children with learning disabilities belong to a heterogeneous group “who have no primary sensory deficits, mental retardation, emotional disturbance, or motor handicaps, however, they have problems processing information that interferes with one or more areas of achievement” (p. S2, Johnson, 1995). Also, according to the Equality Act (2010), dyslexia is recognised as a ‘disability’.

It is important to highlight that many individuals refer to ‘learning disabilities’, ‘learning disorders’ and ‘intellectual disabilities’ interchangeably across sectors and research studies, however there is a clear distinction between them as intellectual disabilities are “defined by the presence of incomplete or arrested mental development, principally characterized by the deterioration of concrete functions at each stage of development and that contribute to the overall level of intelligence, such as cognitive, language, motor and socialization functions” (World Health Organisation, 1992).

In light of this, while it would be beneficial to adapt the DVPPT for individuals who have any type of learning disability that impairs their ability to fill out the DVPPT reliably and confidently, this is not feasible in the scope of this thesis. For instance, it would not be plausible to accurately adapt the tool at this stage given (1) the lack of extensive validation studies conducted so far across diverse samples who do not have these difficulties; (2) the limited knowledge surrounding DV offenders who have one of more of these disabilities/difficulties in relation to the heterogeneity of this type of offender generally; and (3) the vast scope of both intellectual and learning disabilities in general, considering their impact on human

development and their association with the developmental risk factors already included in the DVPPT.

Therefore, considering the lack in consensus across the literature between learning, literacy, intellectual disabilities and disorders, we considered where dyslexia sits amongst these, as it has been found to co-occur with most language and learning disorders (e.g., Pennington & Bishop, 2009), which is closely related to the original motivation for considering dyslexia, given previous participant feedback. In order to justify revising the DVPPT for dyslexia and not any of the other learning disabilities, a shortlist of the most common learning disabilities, their prevalence, and comorbidity with dyslexia was created (see Table 14). These common learning disabilities, not including those that are severe and overlap with intellectual disabilities, or have an association with a physical disability/handicap (e.g., Autism, Downs Syndrome), include: Auditory Processing Disorder; Dyscalculia, Dysgraphia, Dyslexia, Language Processing Disorder, ADHD, Dyspraxia (e.g., Learning Disabilities Association; Kemp, Smith & Segal, 2019).

Table 14. *The prevalence and comorbidity of selected LD's*

Disorder	Prevalence (in UK)	Comorbidity with selected LD's	Examples of Studies/Sources
Dyslexia	10% (UK); 17%	ADHD, Dyscalculia, Language Processing Disorder, Dysgraphia, Dyspraxia.	British Dyslexia Association (2019); Parliamentary Office of Science and Technology (2004); Shaywitz and Shaywitz (2005); Snowling (2013)

Dysgraphia	5-20% of all students with some type of writing deficit.	Dyslexia and ADHD	Reynolds (2007)
Dyscalculia	3-6%	Dyslexia, Dyspraxia, ADHD and Specific Language Impairment	Parliamentary Office of Science and Technology (2004)
Language Processing Disorder	2-3% USA,	Dyslexia	Palfery and Duff (2007),
ADHD	3.6% boys and 0.9% girls (UK, children 5-15 years old); 3-7% (UK), 2-7% globally	Dyslexia and Autism Spectrum Disorder.	Holden et al. (2006); Young et al. (2011)
Dyspraxia	4.9% (UK)	Dyslexia and Autism Spectrum Disorder.	Lingam, Hunt, Golding, Jongmans, & Emond (2009)
Auditory Processing Disorder	5-10% (UK)	Dyslexia, Dyspraxia and Autism Spectrum Disorder.	MRC Institute of Learning Research (2007)

From these prevalence rates and comorbidity findings, across age groups and countries, it is evident that dyslexia is one of the most common learning disabilities and more importantly appears to co-occur with the comparative learning disabilities. Therefore, with this in mind, the focus for the revised scale was on dyslexia and comparative literacy difficulties, given: (1) most of them are neurodevelopmental conditions developed during childhood (which coincides with the other DV

predictors); (2) considering the feedback from participants who completed the DVPPT reported having difficulties interpreting some items due to their dyslexia/dyslexic traits; (3) it seems logical to systematically revise the scale for one disability at a time (that may share symptoms and co-occurs with other similar disabilities), to allow for the researcher to fully understand the implications one learning disability has on the usability of an attitudes scale, before other related/similar disabilities. This is supported by findings that problems with language and attention are also considered to be dyslexia-associated traits (Rose, 2009); and (4) isolate the most common form of learning disability that fits conceptually with the target samples (i.e., general public, has developed alongside the other risk factors, shares traits/behaviors found to be associated with DV offenders or those who were exposed to DV during childhood). For example, dyslexia has been evidenced by some as an inter-generational disability passed from parents to their children (Rose, 2009).

Lastly, in revising the DVPPT for individuals with dyslexia, we are in essence filling a gap in the research as the majority of scales self-report measures are not adapted for individuals with varying literacy abilities. Most revised scales are either (1) short forms of the original scales for a variety of different reasons including to reduce administration time and/or for a different population, for example the short form of the Buss-Perry Aggression Questionnaire (BPAQ-SF; Bryant, & Smith, 2001); (2) adapted to use with samples who speak a different language, for example the Dysfunctional Attitude Scale-Revised (DAS-R; Ruiz et al., 2015) is a revised Spanish version of the original Dysfunctional Attitude Scale (DAS; Weissman, & Beck, 1978); (3) to reflect more contemporary literature, for

example the CTS2. Therefore, since the aim of developing the DVPPT was to be as appropriate as possible to various populations (e.g., males and females), it makes sense that the DVPPT should also be appropriate as much as is possible for populations of varied literacy abilities associated with the most common, co-occurring learning disabilities, that being dyslexia. This would widen the usability of the tool for individuals of different literacy competencies and contribute to further validation studies.

In addition, considering the intersectionality of DV, it is important that the DVPPT is accessible to those from different cultures, backgrounds, and levels of education (which includes varying literacy abilities, and mild learning disabilities related to language/literacy), in order to be a more wider reaching tool that acknowledges these differences exist, and should be considered in the development of tools that are aimed at capturing more diverse samples. So, adaptations to the scale were made to address this issue. This Chapter explains this process, by first outlining the theoretical associations and explanations between the predictive factors included in the DVPPT and the role that dyslexic traits (and comparable literacy difficulties) may have on attitudes towards DV proclivities and behavior; and secondly presenting two studies outlining the developmental stages of the DVPPT (Dyslexia-R).

Briefly, it is worth noting that the acquisition of dyslexic traits and the ways in which having dyslexia may impact an individual's *information processing* is a contributory developmental factor that may interact with the predictors included in the DVPPT (e.g., the development of angry ruminative tendencies). Likewise, in instances where basic *learning processes* (e.g., problem solving) are not fully

developed during childhood due to problems associated with dyslexia, an individual may avoid situations they believe they do not have the skills to handle. Equally, individuals with learning difficulties may feel they are judged negatively by others. In such cases they may rely on schemas and past experiences to help them. This could be one explanation and theoretical link to the use of implicit theories among DV offenders, and will be discussed in more detail later in this Chapter.

Statistics show that dyslexia is a prevalent developmental disorder which is estimated to affect 6-10% of the population (Dåderman, Meurling, & Levander, 2012), as previously highlighted. Importantly, approximately 20% of offenders have been diagnosed with dyslexia (Dyslexia Action, 2005) whilst approximately 50% of offenders are thought to have dyslexia (Kirk & Reid, 2001). Many young offenders who have language difficulties, specifically poor information processing and an impaired ability to structure units of information in a logical order find it difficult to articulate a narrative/story competently for the listener (Snow & Powell, 2005). This is thought to disadvantage young people when they come into contact with law officials or the legal system, as decisions on arrests, blame attributions and sentencing are hugely based on the quality and credibility of verbal statements (Snow & Powell, 2008). Previous research supports this through the reported disparity between offenders' literacy abilities, specifically dyslexia, compared to non-offenders (Elbeheri, Everatt & Malki, 2008; Kirk & Reid, 2001). Similarly, this significant disparity between offenders and other groups (e.g., general public) who have dyslexia has also been reported in studies conducted in Sweden (Jensen, Lindgren, Meurling, Ingvar, & Levander, 1999; Lindgren et al., 2002); Norway

(Rasmussen, Almvik, & Levander, 2001); the United Kingdom (Kirk & Reid, 2001); and the United States (Moody et al., 2000).

Considering the role dyslexia and comparable/related literacy difficulties (i.e., ADHD, dyspraxia) might have in relation to attitudes towards DV proclivity and offending behavior, previous research shows that DV offenders have deficits in cognitive functions controlling verbal expression, learning, attention, executive problem solving, and that they exhibit greater impulsivity (Cohen et al., 2003), compared to non-offenders. Researchers have explored the role of poor executive functioning, which is an important predictor of dyslexic traits (Baker & Ireland, 2007), in offending behavior. This has been of particular interest as executive functions are crucial for navigation through constantly changing environmental contexts (DePrince, Weinzierl, & Combs, 2009), which, in turn, is achieved through the use of cognitive abilities that switch on cognitive strategies, plan, inhibit certain responses and update existing information (Herrero, Escorial, & Colom, 2010).

In light of these associations between executive functioning deficits and similar deficits identified in DV offenders (Baker & Ireland, 2007; Brosnan et al., 2002), it is possible that individuals who have developed pro-attitudes towards DV offending may have done so, due to situational and behavioral events brought about by their dyslexia/dyslexic traits and comparable literacy difficulties. For example, developing the tendency to engage in anger rumination as a product of trying to process an incident where they felt misunderstood or felt frustrated due to poor executive functioning which impacted their ability to react in the appropriate way. This is in no way a definitive cause, but it is worth noting all possible contributors to

the development of behaviors and attitudes that may coincide with other interrelating factors.

Therefore, the main aim of this Chapter was to revise the DVPPT to make it accessible to individuals with dyslexia and comparable literacy difficulties and comorbid conditions (e.g., Attention Deficit Hyperactivity Disorder, ADHD), given the previous findings, and to gain more understanding of DV attitudes among this sample. To this end, the following sections discuss how dyslexic traits have been associated with the constructs measured by the DVPPT, and those conceptually linked to holding pro-attitudes towards DV offending, specifically: **(1)** childhood exposure to DV; **(2)** implicit theories and related cognitive distortions; and **(3)** angry ruminative and aggressive tendencies. This discussion will illustrate the importance of ensuring the DVPPT (Dyslexia-R) is widely accessible and can be easily understood and completed by a vast range of individuals across all literacy levels, and with mild learning disabilities comorbid with dyslexia, as there may be many individuals that remain undiagnosed and may hold pro-attitudes towards DV and proclivities. In the field of DV, it is important to note that even if a tool has the ability to accurately identify a few individuals who have pro-attitudes towards DV and proclivity, and provide them with the support they need, it would still be considered a valuable tool.

1. Correlates between exposure to DV during childhood and dyslexic traits

Past researchers have reported links between individuals who have dyslexia, impulsivity, ADHD and antisocial disorder (Dåderman et al., 2012). One explanation for this is the comorbidity between impulsivity and ADHD and dyslexic traits (Breznitz, 2003; Dåderman et al., 2012; Reiter, Tucha, & Lange, 2005). This is

important to note as some researchers have reported that in cases where dyslexia is undetected, it can be masked by impulsive behavior (e.g., aggression), or behavior associated with ADHD. In relation to the development of pro-attitudes towards DV behavior, researchers have found ADHD to significantly predict violence during childhood through to adulthood (Baker & Ireland, 2007). Impulsivity has also been shown to influence violent offending behavior, and has been associated even more with Dyslexia than ADHD (Dåderman et al., 2012). In addition, some researchers have found that children with dyslexia (non-offending) show more withdrawn or aggressive behavior compared to those without dyslexia (Thomson & Hartley, 1980).

Subsequently, considering how the role of exposure to DV during childhood could be linked to dyslexic traits among some individuals, previous studies have extensively reported the negative impact that early trauma exposure (i.e., child abuse and DV) has on neurobiological changes to cognitive and emotional processes (Gould et al., 2012), particularly poor executive functioning (DePrince et al., 2009; McClintock, Husain, Greer, & Cullum, 2010). For example, some individuals who have been exposed to trauma during their childhood have attentional deficits (Castaneda, Tuulio-Henriksson, Marttunen, Suvisaari, & Lönnqvist, 2008); impaired memory and processing speeds; and deficits in visual and working memory (Gould et al., 2012), all of which could impact a trajectory and potentially enhance their pro-attitudes towards DV and DV proclivity.

2. Correlates between implicit theories, cognitive distortions and dyslexic traits

Previous researchers have found DV offenders who showed poor performance in executive functioning assessments to articulate more cognitive distortions and irrational beliefs than those with no deficits (Persampiere, Poole, & Murphy, 2014), measured using the Articulated Thoughts in Stimulated Situations Procedure (Eckhardt, Barbour, & Davison, 1998). Similarly, using the same procedure, more cognitive distortions and irrational thoughts were identified and fewer anger control statements were articulated among domestically violent males in comparison to a group of non-violent males (Eckhardt & Jamison, 2002). These findings would suggest that for some individuals, poor executive functioning, which is a common dyslexic trait, could influence the formation and/or articulation of distorted cognitions, and their verbal impulsivity for anger statements, both of which have been previously linked with DV offenders, those with pro-attitudes towards DV (e.g., Denson et al., 2011; Gilchrist, 2009).

3. Correlates between aggression and angry rumination with dyslexic traits

3.1. Aggression and dyslexia. Interestingly, researchers have also found poor executive functioning to be a distinguishing factor between individuals who are prone to acting violently, compared to those who are not (Cohen, Rosenbaum, Kane, Warnken, & Benjamin, 1999). These associations between poor executive functioning and aggression and violence could be explained through informational processing models (based on social cognitive theory). Such models suggest that these maladaptive behaviors interfere in stages of cognitive processing (e.g.,

planning, switching) due to learned behavior, poor emotional regulation cognitive biases and normative beliefs (Huesmann, 1998).

In relation to offending, researchers have found that offenders with dyslexia act more violently when compared to those without dyslexia (Lewis, Shanok, Balla & Bard, 1980); the same could presumably be found among those unapprehended but who hold pro-attitudes towards DV offending. Given the prevalence of violent behavior among DV perpetrators, this association would suggest that it is worth considering dyslexic traits when engaging with DV offenders (e.g., law enforcement); and when developing treatments and interventions. Similarly, in line with previous work with individuals with dyslexia, other researchers have found dyslexia exacerbates individuals' pre-existing aggressive behavior (Cornwall & Bawden, 1992). Considering the association between generalised trait aggression and DV proclivity (see Chapter 1), these findings suggest dyslexic traits may well contribute to interpersonal aggression within instances of DV and as such, the DVPPT needs to be able to assess these individuals' attitudes.

One explanation for the increase in aggression among individuals with dyslexic traits is provided by the Frustration-Aggression Hypothesis (Berkowitz, 1989). Simply explained, aggressive behavior results from internal discomfort, such as feelings of frustration. To deal with this discomfort, an individual may draw on past experiences and social learning. An important component of this hypothesis is the *nature* of the memories that are activated. For some, negative experiences involving aggression may be the most memorable/salient, and could result in them feeling angry and acting aggressively. For example, researchers postulate that among

individuals with dyslexia, negative memories of occasions when they have struggled with reading, for example at school, contribute to these feelings of frustration and anger and could result in aggressive behavior (Selenius, Hellström & Belfrage, 2011).

Relating this to DV offenders, it is possible that aggressive behavior to partners (whether displaced aggression or intentional) could be an indicator of the frustration that they experience and the anger that is induced following a negative memory from their childhood (e.g., struggled to sufficiently process information from their abuser which resulted in subsequent violence/abuse). The poor processing speed may also be an indicator of dyslexia, but may have been masked by impulsive behavior (e.g., aggression), which is common in conditions that are comorbid with dyslexia, such as ADHD (e.g., Dåderman et al., 2012).

3.2. Angry rumination and dyslexia. To the author's current knowledge, there have been no direct associations made between angry rumination and dyslexia; but there has been a substantial amount of research into the role of executive functioning in influencing aggression and angry rumination. As previously discussed, poor executive functioning is inherent among many individuals with learning disabilities such as dyslexia and dyspraxia, and is used to help diagnose the condition. According to Denson and colleagues (2011), drawing on the strength model of self-control which suggested executive functioning is a limited self-regulatory resource that is easily depleted it is during a state whereby the self-regulatory resource has been depleted by other activities that impulsive behavior such as retaliatory aggression is more likely to occur. Therefore, applying this model to DV, it could be assumed that an individual who has experienced something that has led them to exert

a lot of cognitive resources (e.g., engages in rumination), could be in a state of having limited executive functioning resources when approached by a new situation, and would be more likely to act on impulse (i.e., aggression).

In addition, when executive functioning resources are depleted, and an individual is provoked, their aggressive responses have been found to be more severe (Denson et al., 2011). Applying this to a DV context, it could be that an individual who has been previously provoked and made angry (by another event/person), and who has a tendency to engage in angry rumination, would be more likely to act aggressively because they have depleted executive functioning resources. This is further supported by previous work that has identified associations between individuals with a history of exposure to DV in their childhood and poor executive functioning, and a tendency to display internalising and externalising behavior (as discussed in Chapter 1).

Overall, the above discussions highlight some potential associations between key DV predictors incorporated into the DVPPT and dyslexic traits. These provide compelling arguments that the DVPPT should be as accessible to individuals who have dyslexia as it is to those who do not, in order to improve the overall usability of the DVPPT, and widening participation. Therefore, to this end, the following sections of this Chapter present the developmental process of the DVPPT (Dyslexia-R), specifically: **(1)** generic changes made to the DVPPT; **(2)** a pilot Study testing the accessibility of the DVPPT (Dyslexia-R), among students; **(3)** key revisions made to the original DVPPT following feedback from a group of experts; **(4)** a Study assessing the accessibility/clarity of the DVPPT (Dyslexia-R) items, among students

and members of the general public; (5) a Study assessing the DVPPT (Dyslexia-R) and replicating factor structure of the original DVPPT.

4. The DVPPT (Dyslexia-R) developmental stages

4.1. Generic revisions made. In line with the generic guidelines from the Accessible Communication Formats, provided by the Office for Disability Issues and the Department for Work and Pensions (GOV.UK, 2014), for presenting information in an accessible way for individuals with dyslexia, the following changes were made to the DVPPT:

- Font changed to comic sans size 14
- Line spacing changed to 1.15

4.2. Pilot Study. A pilot Study was conducted to test whether the revisions made to the DVPPT would make it more easily accessible for individuals with Dyslexia and comparative literacy difficulties.

4.3. Method.

4.3.1. Measures. A revised version of the DVPPT, following the generic suggestions was used in this Study (see Appendix E).

4.3.2. Participants. A total of 18 students and members of the public were recruited to take part in this Study. However, only 7 met the criteria (i.e., are over 18 years of age; are fluent English speakers; and have been diagnosed or are aware of having a literacy difficulty, specifically Dyslexia). The students were contacted internally through the Student Support services from the University of Kent, and the general population was recruited through Prolific Academic (as in Chapter 4). The

combined sample comprised of 3 males (42.9 %), and 4 females (57.1 %).

Participants' ages ranged from 18-74 years old ($M = 30.7$; $SD = 12.9$). The sexuality of the participants comprised of 85.7% ($n = 6$) heterosexual individuals, and 14.3% ($n = 1$) self-reported homosexual individuals. Regarding ethnicity, 85.7% ($n = 6$) participants were White/Caucasian, and 14.3% ($n = 1$) were African American. There were 71.4% ($n = 5$) who were single and never married, 14.3% ($n = 1$) were married with children, and 14.3% ($n = 1$) were living with their partner.

4.3.3. Procedure. The Study was conducted following additional ethical approval from the University of Kent's research ethics committee and APA ethical guidelines. Participants were provided with an information sheet (see Appendix J), two participation criteria questions (i.e., 1 - "Have you been in a relationship before?"; 2 - "Have you been diagnosed with Dyslexia, or aware of having any related literacy difficulties?"), and an electronic consent form to complete if they wished to participate (see Appendix C). Following this, each participant completed a set of demographic questions (as in Chapter 4), and the DVPPT (Dyslexia-R) individually and online (see Appendix K). At the end of the questionnaire, each participant was debriefed in writing (see Appendix O), and provided with contact information (i.e., e-mail address and business landline) of the researcher and support services both in the UK and the USA (as in all studies presented in this thesis).

4.4. Findings and discussion.

From the pilot Study, responses indicated that the phrasing of items did not make the scale accessible to all individuals who reported being diagnosed with

Dyslexia, Dyspraxia, ADHD and/or comparable literacy difficulties, therefore impacting its usability. The data was analysed using the frequency data of each item of the scale, and whether a particular question was indicated as being 'unclear' by 50% or more of the sample (see Table 15a for results).

Table 15a. Percentages of the ‘clear’ and ‘unclear’ responses for Study 6 (Pilot Study)

Questions from the DVPPT (<i>N</i> = 7)		Percentage	
		Clear	Unclear
Relationship Angry Rumination subscale			
1	I re-enact the anger episode between myself and my partner in my mind after it has happened.	57	43
2	When my partner makes me angry, I turn this matter over and over again in my mind.	86	14
3	Memories of even minor annoyances about my partner bother me for a while.	71	29
4	Whenever I experience anger towards my partner, I keep thinking about it for a while.	100	0
5	After an argument between my partner and I is over, I keep fighting with my partner in my imagination.	57	43
6	Memories of being aggravated by my partner pop up into my mind before I fall asleep.	57	43
7	I have long living fantasies of revenge after a conflict with my partner is over.	29	71
8	When my partner makes me angry I can’t stop thinking about how to get back at him/her.	43	57
9	I have day dreams and fantasies of a violent nature about my partner.	43	57
10	I have difficulty forgiving my partner when he/she has hurt me.	71	29
11	I ponder about the injustices that have been done to me by my partner.	100	0
12	I keep thinking about events involving my partner that angered me for a long time.	86	14

13	I feel angry about certain things involving my partner in my life.	33	67
14	I ruminate about past anger experiences I have about my partner.	57	43
15	I think about certain events from a long time ago involving myself and my partner and they still make me angry.	57	43
16	I think about the reasons my partner treats me badly.	71	29
17	When my partner provokes me, I keep wondering why this should have happened to me.	71	29
18	I analyse events that occur between me and my partner that make me angry.	100	0
19	I have had times when I could not stop being preoccupied with a particular conflict between myself and my partner.	43	57

Child Exposure to DV subscale

1	How often did adults in your family disagree with one another?	71	29
2	Did either of your parents ever hurt the other ones feelings by name calling, swearing, yelling, threatening, screaming, or things like that?	86	14
3	How often had one of your parents stopped the other from doing something they wanted to do or made it difficult for them to do something they wanted to do, like leave the house, go to the doctor, use the telephone, or visit friends or relatives?	29	71
4	How often had one of your parents stopped the other from eating or sleeping, or made it difficult for them to eat or sleep?	57	43

5	When one of your parents has hurt the other, how often have you hollered or yelled something at them from a different room than where the fight was taking place?	43	57
6	When one of your parents has hurt the other, how often have you hollered or yelled something at them from the same room than where they were fighting?	43	57
7	When one of your parents has hurt the other, how often have you called someone else for help, like calling someone on the phone or going next door?	57	43
8	When one of your parents has hurt the other, how often have you gotten physically involved trying to stop the fighting?	71	29
9	When one of your parents is hurting the other, how often has this same parent done something to you to hurt or scare the other parent?	14	86
10	When one of your parents is hurting the other, how often have you tried to get away from the fighting by hiding, leaving the house, locking yourself in a different room or things like that?	86	14
11	How often has the more abusive/violent parent asked you to tell them about what the other parent has been doing or saying?	71	29
12	How often do you worry about the more abusive/violent parent getting drunk or taking drugs	57	43
13	How often do you worry about the less abusive/violent parent getting drunk or taking drugs?	57	43

14	How often does the less abusive/violent parent seem sad, worried or upset?	14	86
15	How often does it feel like you have dealt with big changes in your life? For example, moving homes, staying in the hospital, your parents getting a divorce, the death of someone you're close to, a parent going to jail, and other things like that?	43	57
16	Sometimes people annoy or hurt each other such as making fun of someone or calling them names, and saying things to make them feel bad. How often have you heard a person do or say any of these things to someone else in your community or at your school?	57	43
17	How often has someone from your community or at your school done or said any of these things to you to hurt you?	57	43
18	How often do you hurt a person's feelings on purpose, like making fun of someone or calling them names?	43	57
19	How often do you physically hurt a person on purpose, such as hitting, kicking or things like that?	57	43
20	How often have you seen someone else in your community or at school get hurt by being grabbed, slapped, punched, kicked or hurt by a knife or a gun?	43	57
21	How often has someone at school or in your community hurt you by grabbing, slapping, punching, kicking or threatening you with a knife or gun?	57	43
22	How often have you seen someone being hurt or killed on television or in a movie?	71	29
23	How often have you seen someone being hurt or killed in a video game?	86	14

24	How often has an adult in your family hurt your feelings by making fun of you, calling you names, threatening you, or saying things to make you feel bad?	71	29
25	How often has an adult in your family done something to hurt your body, like hitting you, kicking you, beating you up, or things like that?	71	29
26	How often has someone who is not in your family touched your private parts when you didn't want them to, made you touch their private parts, or forced you to have sex?	57	43
27	How often has someone in your family touched your private parts when you didn't want them to, made you touch their private parts, or forced you to have sex?	71	29

Proclivity and Implicit theories subscale

	Physical violence Scenario	57	43
	Psychological Abuse Scenario	86	14
	Financial/controlling behavior Scenario	71	29
	Sexual Abuse Scenario	71	29
1	In this situation, could you see yourself doing the same?	71	29
2	In this situation, how much would you have enjoyed getting your way?	57	43
3	In this situation, given the circumstances, would you find your behavior acceptable?	57	43

4	In this situation, how much is your partner to blame for how you acted towards them?	71	29
5	In this situation, how much do you believe that when you are with a partner, they belong to you and therefore you have certain expectations?	29	71
6	In this situation, how much does your partners' reaction indicate a lack of respect for your views and concerns?	71	29
7	In this situation, how much would you agree that you have a need for taking control of the situation?	43	57

It is important to mention that following this pilot Study, there were additional items that were changed to the suggested revisions presented in the next section, even though they were not indicated as unclear by 50% or more participants. Therefore, the next section outlines changes that were suggested by experts from the Students Support Services from the University of Kent, with the aim of further improving the accessibility of the DVPPT (Dyslexia-R).

5. Revisions made to the DVPPT (Dyslexia-R) following Pilot and Expert Feedback

Following feedback from a group of professionals who work within the Student Support Services, and specialise in learning difficulties (i.e., Dyslexia, Dyscalculia, Dyspraxia and ADHD), at the University, changes were made to the scale. Generally, these were:

- I. **Sentences simplified into shorter phrases** – e.g., “I have day dreams and fantasies of a violent nature about my partner” was changed to “*I have violent day dreams and fantasies about my partner*”
- II. **Long words were substituted for simpler ones** – e.g., “I have had times when I could not stop being preoccupied with a particular conflict between myself and my partner” was changed to “*I have had times when I could not stop thinking about a particular conflict between myself and my partner*”
- III. **Inserted a dash and a set of brackets to break up clauses and lists of behavior and/or actions** – e.g., “How often do you hurt a person’s

feelings on purpose, like making fun of someone or calling them names?” was changed to “*How often do you hurt a person’s feelings on purpose? – (like making fun of someone or calling them names)*” ; “How often have you seen someone else in your community or at school get hurt by being grabbed, slapped, punched, kicked or hurt by a knife or a gun?” was changed to “*How often have you seen someone else in your community or at school get hurt?(e.g., being grabbed, slapped, punched, kicked or hurt by a knife or a gun)*”

Once the above changes were implemented, the DVPPT (Dyslexia-R) was ready to be reassessed for its accessibility to individuals with Dyslexia. Therefore, the next section presents Study 6 which was aimed at assessing the overall accessibility of the measure to individuals who have a diagnosis of Dyslexia and comparative literacy difficulties and comorbid conditions (e.g., ADHD).

6. Study 6: Study assessing the clarity of the DVPPT (Dyslexia-R) items

6.1. Participants. A total of 75 members of the general population were recruited through Prolific Academic (as in Chapter 4), who had a diagnosis of dyslexia. The sample was comprised of 48 males (64 %), 25 females (33.3 %), and 2 (2.7%) who preferred not to state their gender. The age of the participants ranged between 18 and 74 years old ($M = 28.72$; $SD = 6.13$). Of these, 80% ($n = 60$) were heterosexual, and 10.7% ($n = 8$) were bisexual, 2.7% ($n = 2$) were homosexual, and the remaining 6.7% ($n = 5$) preferred not to say. With regards to their ethnicities, 69.3% ($n = 52$) were White/Caucasian, 21.3% ($n = 16$) were Asian, 1.3% ($n = 1$)

were African American, 1.3% ($n = 1$) were Hispanic, 1.3% ($n = 1$) were Native American, and the remaining 5.3% ($n = 4$) stated 'other'. There were 38.7% ($n = 29$) who were single and never married, 16% ($n = 12$) were living with their partner, 14.7% ($n = 11$) were married with children, 14.7% ($n = 11$) were in a relationship but not cohabiting, 12% ($n = 9$) were married without children, 2.7% ($n = 2$) were divorced, and 1.3% ($n = 1$) were widowed. For their participation, a monetary reward of 50p was given.

6.2. Measures and Procedure. Following the above revisions to the DVPPT (Dyslexia-R), the same procedure was used as in the pilot Study. All participants completed all items in the revised version online (see Appendix L for revised scale). The second criteria question was changed slightly from the pilot version in order to make sure only individuals 'diagnosed with dyslexia, dyspraxia or ADHD or who were aware of having any related literacy difficulties' were included (i.e., "*Have you been diagnosed with Dyslexia, Dyspraxia or ADHD or aware of having any related literacy difficulties?*") Screening procedures were also conducted to ensure participants had not participated in the Study before (as in studies 3 and 4).

6.3. Results and Discussion. Following data cleaning procedures (as in Chapter 4), all responses ($N = 75$) were analysed to determine the percentage of participants who found each item in the DVPPT (Dyslexia-R) 'clear' or 'unclear'. For the first subscale (i.e., RAR; relationship angry rumination), the majority of all items were reported as clear. In the second subscale (i.e., CEDV-R; child exposure to DV), all items were indicated as 'clear' by the majority of participants except for

one, in which only 49% stated it was clear (i.e., “*How often has someone (who is not in your family) touched your private parts when you didn’t want them to, or made you touch their private parts, or forced you to have sex?*”). Lastly, in the third subscale (PROCLIVITY_IT; proclivity and implicit theories), all four scenarios and implicit theory items were reported by the majority of participants as being clear to understand. *Table 15b* shows the average percentages for all participant responses for each of the subscales of the DVPPT (Dyslexia-R).

Table 15b. *Proportion of 'clear' and 'unclear' responses on the DVPPT (Dyslexia-R)*

Subscales	Average 'Clear' responses	Average 'Unclear' responses
RAR	72.1	27.9
CEDV-R	68.7	31.2
PROCLIVITY_IT	71.9	28.1

These findings provide good support for the DVPPT (Dyslexia-R) being a revision of the DVPPT that is accessible to the majority of individuals with a diagnosis of dyslexia, dyspraxia and/or ADHD, from a diverse sample. This revised scale has been shown to be easier to interpret and understand by individuals with literacy difficulties, therefore improving the usability of the tool. *Table 15c* shows the individual item results.

Table 15c. Percentages of the ‘clear’ and ‘unclear’ responses for Study 6 (Final version)

Questions from the DVPPT (<i>N</i> = 75)		Percentage	
Relationship	Angry Rumination subscale	Clear	Unclear
1	I re-enact the angry episode between myself and my partner in my mind after it has happened.	79	21
2	When my partner makes me angry, I turn this matter over and over again in my mind.	70	21
3	Memories of even minor annoyances about my partner bother me for a while.	76	24
4	Whenever I experience anger towards my partner, I keep thinking about it for a while.	89	11
5	After an argument between my partner and I is over, I keep fighting with my partner in my imagination.	65	35
6	Memories of being deeply annoyed with my partner pop up into my mind before I fall asleep.	77	23
7	I have fantasies of revenge after a conflict with my partner is over.	63	37
8	When my partner makes me angry I can’t stop thinking about how to get back at him/her.	73	27
9	I have day dreams and fantasies of a violent nature about my partner.	63	36
10	I have difficulty forgiving my partner when he/she has hurt me.	72	28

11	I ponder about the injustices that have been done to me by my partner.	63	37
12	I keep thinking about events involving my partner that angered me for a long time.	72	27
13	I feel angry about certain things involving my partner in my life.	73	27
14	I think deeply about when I have been angry in the past with my partner.	51	49
15	I think about certain events from a long time ago involving myself and my partner and they still make me angry.	73	25
16	I think about the reasons my partner treats me badly.	71	29
17	When my partner provokes me, I keep wondering why this should have happened to me.	64	36
18	I analyse events that occur between me and my partner that make me angry.	81	19
19	I have had times when I could not stop being preoccupied (daydreaming about your own thoughts) with a particular conflict between myself and my partner.	69	31

Child Exposure to DV subscale

1	How often did adults in your family disagree with one another?	85	15
2	Did either of your parents ever hurt the other ones feelings by name calling, swearing, yelling, threatening, screaming, or things like that?	77	21

3	How often had one of your parents stopped the other from doing something they wanted to do or made it difficult for them to do something they wanted to do? An example might be: like leave the house, go to the doctor, use the telephone, or visit friends or relatives	68	32
4	How often had one of your parents stopped the other from eating or sleeping, or made it difficult for them to eat or sleep?	67	33
5	When one of your parents has hurt the other, how often have you hollered or yelled something at them from a different room than where the fight was taking place?	67	32
6	When one of your parents has hurt the other, how often have you hollered or yelled something at them from the same room than where they were fighting?	73	27
7	When one of your parents has hurt the other, how often have you called someone else for help, like calling someone on the phone or going next door?	71	29
8	When one of your parents has hurt the other, how often have you gotten physically involved trying to stop the fighting?	64	36
9	When one of your parents is hurting the other, how often has this same parent done something to you to hurt or scare the other parent?	51	47
10	When one of your parents is hurting the other, how often have you tried to get away from the fighting by hiding, leaving the house, locking yourself in a different room or things like that?	64	36

11	How often has the more abusive/violent parent asked you to tell them about what the other parent has been doing or saying?	69	31
12	How often do you worry about the more abusive/violent parent getting drunk or taking drugs	56	44
13	How often do you worry about the less abusive/violent parent getting drunk or taking drugs?	57	43
14	How often does the less abusive/violent parent seem sad, worried or upset?	68	32
15	How often does it feel like you have dealt with big changes in your life? For example, moving homes, staying in the hospital, your parents getting a divorce, the death of someone you're close to, a parent going to jail, and other things like that?	69	31
16	Sometimes people annoy or hurt each other such as making fun of someone or calling them names, and saying things to make them feel bad. How often have you heard a person do or say any of these things to someone else in your community or at your school?	73	25
17	How often has someone from your community or at your school done or said any of these things to you to hurt you?	80	20
18	How often do you hurt a person's feelings on purpose, like making fun of someone or calling them names?	80	20
19	How often do you physically hurt a person on purpose, such as hitting, kicking or things like that?	59	41
20	How often have you seen someone else in your community or at school get hurt by being grabbed, slapped, punched, kicked or hurt by a knife or a gun?	72	28

21	How often has someone at school or in your community hurt you by grabbing, slapping, punching, kicking or threatening you with a knife or gun?	65	35
22	How often have you seen someone being hurt or killed on television or in a movie?	84	16
23	How often have you seen someone being hurt or killed in a video game?	84	16
24	How often has an adult in your family hurt your feelings by making fun of you, calling you names, threatening you, or saying things to make you feel bad?	65	33
25	How often has an adult in your family done something to hurt your body, like hitting you, kicking you, beating you up, or things like that?	57	41
26	How often has someone who is not in your family touched your private parts when you didn't want them to, made you touch their private parts, or forced you to have sex?	48	51
27	How often has someone in your family touched your private parts when you didn't want them to, made you touch their private parts, or forced you to have sex?	57	43

Proclivity and Implicit theories subscale

Physical violence Scenario	73	27
Psychological Abuse Scenario	69	31

	Financial/controlling behavior Scenario	73	27
	Sexual Abuse Scenario	72	27
1	In this situation, could you see yourself doing the same?	85	15
2	In this situation, how much would you have enjoyed getting your way?	79	21
3	In this situation, given the circumstances, would you find your behavior acceptable?	67	32
4	In this situation, how much is your partner to blame for how you acted towards them?	68	32
5	In this situation, how much do you believe that when you are with a partner, they belong to you and therefore you have certain expectations?	65	35
6	In this situation, how much does your partners' reaction indicate a lack of respect for your views and concerns?	72	28
7	In this situation, how much would you agree that you have a need for taking control of the situation?	65	35

From these results, it is evident that the revised items of the DVPPT (Dyslexia-R) were more accessible, and easier to interpret and complete for individuals with literacy difficulties. Therefore, in order to assess the statistical validity of these items, they were substituted into the original design of the DVPPT (discussed in more detail in the measures section). Once the completed DVPPT (Dyslexia-R) was constructed with the original participant response options, the measures were ready to be used to determine whether the factor structure was replicated, and the DVPPT (Dyslexia-R) had content validity. For example, in the angry rumination subscale, the participant responses were on a 4-point Likert-type scale ranging from 1 = ‘almost never’ to 7 = ‘almost always’). The next section outlines the validation Study (i.e., Study 7) of the DVPPT (Dyslexia-R), which was aimed at replicating the factor structure of the DVPPT in a different sample with the same criteria as in Study 6.

7. Study 7: Main Study assessing the factor structure of the DVPPT (Dyslexia-R)

7.1. Participants. A total of 201 participants (51.2% Males, 46.8% Females, 1% Transgender, and 0.5% indicated ‘other’) were recruited online through Prolific Academic (as in Study 6). All participants were given a monetary reward of £1.40. All participants met the same criteria as in Study 6, and were all between 18 and 65 years old ($M = 29.86$, $SD = 9.12$). Of these, 45.3% ($n = 91$) were from the USA; 41.8% ($n = 84$) from the United Kingdom; 4.5% ($n = 9$) from Portugal; 2% ($n = 4$) from Poland; 2% ($n = 4$) from Canada; 1% ($n = 2$) from Mexico; 0.5% ($n = 1$) from Australia; 0.5% ($n = 1$) from Belgium; 0.5% ($n = 1$) from Czech Republic;

0.5% ($n = 1$) from Netherlands; 0.5% ($n = 1$) from Spain; and 0.5% ($n = 1$) from Turkey. There were 82.6% ($n = 166$) White/Caucasian participants, 5.5% ($n = 11$) who were African American, 5.5% ($n = 11$) Hispanic, 3% ($n = 6$) Asian, 1% ($n = 2$) Native Americans, and the remaining 2.5% ($n = 5$) stated 'other'. With regards to their sexuality, 76.1% ($n = 153$) were heterosexual, 8% ($n = 16$) were homosexual, 14.9% ($n = 30$) were bisexual, and 1% ($n = 2$) preferred not to state their sexuality. There were 35.3% ($n = 71$) who reported being single and never married, 19.4% ($n = 39$) who were married with children, 19.4% ($n = 39$) were living with their partners, 6.5% ($n = 13$) who were married without children, 13.9% ($n = 28$) were in a relationship but not cohabiting, 3% ($n = 6$) were divorced, 1.5% ($n = 3$) who were widowed, and 0.5% ($n = 1$) who were separated.

7.2. Measures and Procedure. Participants in Study 7 followed the same procedure as in Study 6. All responses were completed individually online. Here, the participants were not requested to indicate whether an item was 'clear' or 'unclear' as in Study 6, instead their responses were provided according to the response format outlined in the original version of the DVPPT (see Appendix M for full scale).

7.3. Results.

7.3.1. Data cleaning. The same data cleaning procedures were conducted as in Study 6.

7.3.2. Analyses. An exploratory factor analysis (EFA) was conducted on the 16 computed subscales with Oblique rotation (Promax), as in Study 2. The Kaiser-Meyer-Olkin measure indicated good sampling adequacy (.87), and the Bartlett test of sphericity (1544.826, $p < 0.00$) showed adequate multivariate

normality. *Table 16a* illustrates the correlations between these subscales, and are comparable to the original inter-relationships produced in Study 2 (see Chapter 3, Table 2).

Table 16a. *Correlations between the subscales of the DVPPT (Dyslexia-R) (N=201)*

Subscales and Factor	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1. Angry Memories	-															
2. Understanding the Causes	.69**	-														
3. Thoughts of Revenge	.69**	.53**	-													
4. Angry Afterthoughts	.63**	.63**	.69**	-												
5. Level of Violence	.28**	.26**	.26**	.25**	-											
6. Involvement	.27**	.27**	.27**	.20**	.68**	-										
7. Community Exposure	.24**	.30**	.29**	.27**	.48**	.42**	-									
8. Risk Factors	.23**	.23**	.19**	.22**	.76**	.75**	.53**	-								
9. Victimization	.25**	.20**	.32**	.17*	.64**	.63**	.45**	.66**	-							
10. Proclivity	.47**	.24**	.60**	.31**	.12	.14	.12	.07	.20**	-						
11. Enjoyment	.33**	.25**	.49**	.28**	.14	.20**	.10	.14	.26**	.65**	-					
12. Violence/Behavior is Acceptable	.35**	.23**	.49**	.31**	.16*	.17*	.07	.15*	.21**	.78**	.73**	-				
13. Partner Blame	.33**	.28**	.45**	.36**	.09	.12	.07	.05	.13	.65*	.67**	.77**	-			
14. Partner as Object	.27**	.22**	.44**	.26**	.19*	.19**	.03	.12	.26**	.61**	.67**	.64**	.67**	-		
15. Relationship Entitlement	.32**	.21**	.40**	.33**	.13	.14	.13	.10	.21**	.58**	.59**	.61**	.78**	.57**	-	
16. Need for Control	.29**	.18*	.46**	.30**	.15*	.14	.02	.08	.20**	.61**	.64**	.67**	.74**	.74**	.75**	-

*. Correlations are significant at the 0.05 level (2-tailed). **. Correlations are significant at the 0.01 level (2-tailed).

The EFA yielded a three factor solution explaining 62.75% of the total variance (i.e., Relationship Angry Rumination, Childhood exposure to DV, and Proclivity, Enjoyment and Implicit Theories). The eigenvalues for these three factors were 6.03, 3.32 and 1.76 respectively, and in combination explained 69.40% of the variance. These three factors were identical to those of the original DVPPT measure (see Table 16b).

Table 16b: *Factor loadings of the DVPPT (Dyslexia-R) subscales from Study 7*

Subscales and Factor	1	2	3
1. Angry Memories - Partner	.93		
2. Understanding the Causes - Partner	.78		
3. Thoughts of Revenge - Partner	.72		
4. Angry Afterthoughts - Partner	.72		
5. Level of Violence (i.e., actions)		.83	
6. Involvement during DV		.81	
7. Community Exposure to violence		.50	
8. Risk Factors (e.g., alcohol abuse)		.90	
9. Victimization by adults/parents		.75	
10. DV Proclivity			.73
11. Enjoyment			.75
12. Violence/Behavior is Acceptable			.84
13. Partner Blame			.88
14. Partner as Object			.77
15. Relationship Entitlement			.80
16. Need for Control			.82

All three factors, Relationship Angry Rumination ($\alpha = .84$), Childhood exposure to DV ($\alpha = .87$), and Proclivity, Enjoyment and Implicit Theories ($\alpha = .93$)

maintained high reliabilities. *Table 16c* shows the descriptive statistics and factor loadings for the final version of the DVPPT (Dyslexia-R). From this table, all the corrected item-total correlations across the composites were above .04, which are deemed acceptable (Leong & Austin, 2005). These findings provide good support for the reliability of the DVPPT (Dyslexia-R).

Table 16c. Descriptive statistics and factor loadings of the DVPPT (Dyslexia-R) Final Subscales in Study 7 (N =201)

Item	Factor Loading	Item-total correlation	Mean (SD)
<i>"Relationship Angry Rumination"</i>			
Angry Memories (partner)	.929	.53	1.91 (.63)
Understanding the Causes (partner)	.778	.48	2.10 (.70)
Angry Afterthoughts (partner)	.722	.46	2.34 (.70)
Thoughts of Revenge (partner)	.544	.63	1.47 (.47)
<i>"Childhood Exposure to Domestic Violence"</i>			
Level of Violence	.832	.49	2.27 (.86)
Community Exposure	.497	.32	3.24 (.75)
Involvement	.805	.52	2.05 (1.04)
Risk Factors	.904	.44	2.53 (1.19)
Victimization	.746	.49	1.91 (.82)
<i>"Proclivity_Implicit Theories"</i>			
Proclivity (Financial, Sexual, Psychological and Physical forms of DV)	.725	.59	1.53 (.60)
Enjoyment (Financial, Sexual, Psychological and Physical forms of DV)	.750	.56	1.65 (.70)
Behavior/violence is Acceptable (IT)	.837	.58	1.70 (.69)
Partner to Blame (IT)	.880	.57	1.98 (.77)
Partner as Object (IT)	.766	.56	1.54 (.78)
Relationship Entitlement (IT)	.797	.56	2.20 (.78)
Need for Control (IT)	.823	.56	2.29 (.87)

8. Overall Discussion

This Chapter presents theoretical justifications for the need for the revision of the DVPPT that is accessible to individuals who have dyslexia and/or comparable literacy difficulties. One key motivation being to consider the tools utility in light of the intersectionality approach to DV, and acknowledge the samples that are not commonly considered in DV research and scale development. For instance, there are individuals from many cultures and ethnic backgrounds that do not believe that dyslexia is a literacy difficulty and would therefore remain undiagnosed and unsupported. Another justification was the prevalence of dyslexia and its high comorbidity with other common learning disorders (e.g., Pennington & Bishop, 2009).

Previous research has found associations between individuals with poor executive functioning, an important predictor of dyslexia, and impulsive behavior (e.g., aggression), violence, and the induction of rumination to influence aggression (e.g., Baker & Ireland, 2007; Denson et al., 2011; Selenius et al., 2011). Others have highlighted the importance of considering dyslexia in the assessment of offenders, in particular, those that self-report aggression, as this could be an indicator of undiagnosed dyslexic traits (Selenius et al., 2011), for which the same could apply to those who are unapprehended and share pro-attitudes to DV. This is supported by previous studies that have found a high proportion of offenders to have dyslexic traits, compared to non-offenders (e.g., Baker & Ireland, 2007; Elbeheri, Everatt & Malki, 2008). Similarly, approximately 20% of offenders were undiagnosed with dyslexia (Dyslexia Action, 2005), which suggest that a substantial amount of offending behavior could be linked to dyslexia, and the behavior that it has been associated with (e.g., aggression). Other studies have found as many as 73% of

prisoners in a Study conducted in the UK scored below the acceptable level on a grammatical competency scale (Bryan, 2004), which has huge implication for their ability to engage in interventions or provide reliable answers to written assessments. Although the DVPPT (Dyslexia-R) is not aimed at informing treatment and is not a DV assessment tool, it is important to highlight that those who self-report pro-attitudes to DV offending may be engaged with prosocial activities with their peers and due to their dyslexia may not be fully engaged and more drawn towards anti-social activities, potentially leading to criminality.

From previous work, it was clear that a psychometric tool used to assess attitudes towards DV and which was easily accessible for individuals with literacy difficulties was needed. So, given the associations reported between DV offending and dyslexic traits, the current Study revised the DVPPT to assess DV in a way that is accessible to individuals of all literacy abilities. This is further supported by evidence that suggests that some offenders who have had a disruptive childhood, have poor verbal and literacy skills, which some researchers have suggested is due to their education being disrupted during childhood (Kirk & Reid, 2001; Snowling, Adams, Bowyer-Crane & Tobin, 2000). With this in mind, and considering the probability that many offenders (and those who are not offenders but share similar attitudes towards DV), may not have been diagnosed as having dyslexia due to their lifestyles and a chaotic/disruptive trajectory from childhood to adulthood, the DVPPT was revised to the DVPPT (Dyslexia-R). This revised tool helps further our knowledge of individuals' DV behavior by broadening its accessibility – particularly in online studies. On the whole, both the DVPPT and the DVPPT (Dyslexia-R) provide important information about the proclivity and DV predictors of individuals within the general public that have both good and poor literacy abilities.

In view of this, Study 6 assessed the accessibility of the DVPPT (Dyslexia-R) items, and shows that the majority of participants (all diagnosed with dyslexia), have found items to be clear to understand. From this indication that the revised items were much clearer and therefore more accessible to those with literacy difficulties, Study 7 was devised. This Study was conducted to assess the reliability of the newly revised tool through the replication of the factor structure of the original DVPPT. From the EFA conducted on the DVPPT (Dyslexia-R) the three factor structure was successfully replicated and retained high levels of internal consistency: '*Relationship Angry Rumination*' (RAR; $\alpha = .84$), '*Childhood Exposure to DV*' (CEDV-R; $\alpha = .87$), and '*Proclivity, Enjoyment and Implicit Theories*' (PROCLIVITY_IT; $\alpha = .93$). This suggests that the newly developed DV tool is statistically reliable in assessing attitudes towards three key constructs related to DV and DV proclivity (i.e., childhood exposure to DV; angry rumination towards an intimate partner; and DV proclivity and implicit theories).

These studies are a positive contribution to demonstrating good initial support for the effectiveness and reliability of the DVPPT in assessing DV proclivity and attitudes towards DV predictive factors. In addition, the knowledge gained from individuals about their DV proclivity in respect of their literacy abilities can contribute to DV research.

9. Conclusion

Overall, this Chapter presented a Study that used a revised version of the DVPPT which was developed with the main aim of being accessible to all individuals diagnosed primarily with dyslexia (and /or dyspraxia, ADHD) or not, following participants' feedback from previous studies in this thesis, and improving the utility of the tool for those from diverse backgrounds that may have poor literacy

abilities. The items were initially revised following generic guidelines for individuals with dyslexia, from which a small pilot Study was conducted. Following this, further revisions were made, as the majority of participants indicated that not all items were clear to understand. Revisions were recommended by experts in learning difficulties from the Student Support Services at the University of Kent. These changes included the shortening of long phrases, simplifying words used, and placing lists (i.e., examples of behavior) into brackets. The revised scale, the DVPPT (Dyslexia-R), was completed by 75 individuals who were diagnosed with primarily Dyslexia. From this sample, the majority of participants reported that all items in the scale were 'clear'.

Following this, a second Study was conducted to assess the reliability of the DVPPT (Dyslexia-R), by determining whether the factor structure of the DVPPT would be replicated. The results from this second Study showed that the DVPPT (Dyslexia-R) is statistically reliable and assesses identical factors as the original DVPPT (i.e., relationship angry rumination; childhood exposure to DV; and DV proclivity and implicit theories). This shows good support that the DVPPT (Dyslexia-R) is primarily accessible to individuals diagnosed with dyslexia, dyspraxia, ADHD and any other comparable literacy difficulties/disorders. These two versions of the DVPPT allow for researchers to use the version that is the most applicable once considering the make-up of their independent samples. Following further validation, the DVPPT (Dyslexia-R) may become the more dominant tool and replace the DVPPT due to its wider usability across individuals with various literacy abilities. Although this Study shows good support for the revised scale, there are a number of limitations and future implications to consider which will be discussed in the next Chapter.

Chapter Seven

Overall Discussion and Suggestions for Future Research

1. Background and Aims of Thesis.

Domestic violence remains a public health problem that has continued to challenge practitioners and attract more research attention due to its high prevalence rates (e.g., Garcia-Moreno, Jansen, Ellsberg, Heise, & Watts, 2006; Office of National Statistics, 2015; Stockl et al., 2013). For decades, researchers have examined the **negative consequences** of DV for victims (e.g., Campbell, 2004; Coker et al., 2002; Krahe, Bieneck, & Möller, 2005; Tjaden & Thoennes, 2000); identified DV **risk factors** (e.g., Capaldi et al., 2012; Riggs, Caulfield, & Street, 2000; Schumacher, Feldbau-Kohn, Smith Slep, & Heyman, 2001; Stith et al., 2004); developed **screening** measures (e.g., Furbee, Sikora, Williams, & Derk, 1998; Klevens, Sadowski, Kee, Trick, & Garcia, 2012; Macmillan et al., 2009; O'Reilly, Beale, & Gillies, 2010); and **risk assessments**, all aimed towards reducing DV offending and the negative consequences of this for victims (e.g., Dutton & Kropp, 2000; Grann & Wedin, 2002; Nicholls et al., 2013; Roehl & Guertin, 2014; Williams & Houghton, 2004).

In light of this previous work, the current thesis addressed DV through the development of a new DV proclivity and predictors tool that assessed individual's attitudes towards socio-cognitive and developmental predictors of DV perpetration and DV proclivity. As already noted, to date, a majority of DV assessments have been developed using heterosexual male samples (e.g., Bowen, 2011; Helmus & Bourgon, 2011), and have not been validated with other types of offenders (e.g., same-sex and/or female perpetrators). These drawbacks may be reflected in the high recidivism rates (e.g., Babcock, Green, & Robie, 2004), which in turn, could suggest

that the introduction of a new attitudinal measure based on contemporary research that addresses some of these limitations, and interrelated constructs could contribute to our understanding of individuals attitudes towards DV and influential factors.

Past research has examined general risk factors for DV perpetration such as the exposure to familial violence, child abuse, drug and substance abuse and unemployment (e.g., Capaldi et al., 2012). However, very little work has explored inter-related predictive factors that may explain DV perpetration from a socio-cognitive developmental perspective, as this approach is thought critical in investigating DV developmental predictors and proclivity. For instance, differences between individuals' cognitive development following experiences of child abuse (e.g., emotional regulation), evidenced by researchers such as Dube et al. (2003), and how certain distorted beliefs (e.g., violence in relationships is acceptable) may develop and be reinforced by peers.

To this end, an examination of DV predictors, such as distorted attitudes and beliefs, that may have developed during childhood provide valuable information about how some individuals initially engage in DV behavior and hold pro-attitudes towards DV. Considering this, previous researchers have suggested one of the strongest predictors of offending was whether an individual held attitudes and beliefs that were congruent to specific offending behavior, also known as a proclivity (Ward et al., 2007). Based on these beliefs researchers have developed proclivity scales to assess individuals' behavioral propensity towards undesirable or criminal behavior such as rape (Bohner et al., 1998), child molestation (Gannon & O'Connor, 2011), animal cruelty (Alleyne et al., 2015) and firesetting (Gannon & Barrowcliffe, 2012) behavior. However, as highlighted in chapter 2, existing assessments of DV have focussed on attitudes, beliefs, risk factors of DV, and prior to this thesis, no

published scale had been developed to measure DV proclivity. Thus, the research presented in this thesis developed a gender neutral DV tool (i.e., assesses factors related to both male and female perpetrators), that measures attitudes towards inter-related predictive factors of DV proclivity and perpetration suggested to have developed during childhood.

As highlighted in this thesis, this new tool considers that both males and females may hold pro-attitudes towards DV perpetration, and that the types of DV that each gender may have proclivities towards could be different (i.e., females using subtler forms of violence and males using more explicit forms), however, theory driven interventions for DV remain predominantly male-based (i.e., based on feminist ideology). In addressing this point, the DVPPT incorporates subtle forms of DV (e.g., emotional abuse and controlling behavior), and includes predictors which tap into cognitive processes, and developmental tendencies that could influence both male and female perpetration, and identify the more immediate antecedents to pro-DV perpetration attitudes (e.g., angry rumination). This approach was chosen as it aimed to encapsulate most aspects of an individual's development across all the levels of the Nested Ecological Model (Dutton, 1995) as described in chapter 1, especially the individual, interpersonal and family factors. This would allow the users of the DVPPT to conduct further studies with diverse samples (i.e., not specifically clinical samples), in line with the intersectionality perspective of DV.

Findings provide reason for incorporating predictors, behaviors, motivations and attitudes for female perpetration into DV research, in order to gain a more in-depth understanding of the subtle nuances in their DV behavior as compared to males. The gender neutrality of the DVPPT is comparable to that of the CTS2, however, where the CTS2 focuses on the interaction/DV event, and the tactics used

by both partners, the DVPPT assesses the developmental, immediate, cognitive and behavioral mechanisms related to DV perpetration attitudes and proclivity.

2. Summary of Findings

The first two studies in this thesis (Studies 1 and 2; Chapter 3) show the development of the DVPPT: Study 1 includes an initial pool of items to assess *childhood exposure to DV, general angry rumination, relationship angry rumination, DV proclivity, enjoyment and five selected implicit theories* (i.e., ‘*violence is acceptable*’; ‘*relationship entitlement*’; ‘*partner as object*’; ‘*partner to blame*’ and ‘*need for control*’). Study 2 includes the same items as in Study 1, except for the *general angry rumination* questions, which were removed due to high inter-correlation, as they both assess angry rumination, and creating the context of an intimate relationships was the primary focus of this measure. Both studies produced a three factor model and demonstrated the high internal consistency and construct validity of the newly developed DVPPT.

In studies 3 and 4 (Chapter 4), analyses determined the concurrent validity of the DVPPT. These studies also show the convergent and discriminant validity of the DVPPT by administering it alongside measures that assess constructs conceptually expected to be positively and negatively associated with DV. In both studies, the expected relationships across all constructs are shown (e.g., DV was positively correlated with displaced aggression). Interestingly, as expected, given the student and community samples recruited and the use of attitudinal tools, there was little statistical difference found between those who reported DV proclivities and pro-attitudes towards DV offending, and those who do not. This suggests that when under primed experimental conditions, a differentiation between the two groups may be found, in samples where individuals are expected to have DV proclivities (e.g.,

Criminal Justice System or DV perpetrators recommended to a DV perpetrators treatment program). This is a recommendation for future research and further validation studies.

While the previous studies examined constructs expected to correlate and not correlate with the factors in the DVPPT (i.e., demonstrating construct and discriminant validity), Chapter 5 reports an exploratory Study (Study 5) which examines how traditional gender role beliefs, DV myth acceptance, and attribution of blame relate to DV proclivity and implicit theories (constructs taken from the DVPPT). The main motivation for this judgement study was based on research involving rape proclivity, rape myth acceptance and victim blaming attitudes (e.g., Bohner, Jarvis, Eyssel & Siebler, 2005; Viki, Chiroro & Abrams, 2006). As predicted, findings show a positive association between these four constructs, which have not, to the author's current knowledge, been assessed before. In addition, DV myth acceptance and victim blame are shown to be predictors of DV proclivity, as was socially desirable responding. However, when assessing DV proclivity and the implicit theories held by individuals, DV myths, victim blame and gender became strong predictors of DV, whilst desirable responding lost its importance.

These findings suggest that by including implicit theories along with DV proclivity, participants' socially desirable responding is overridden. This indicates the importance of providing context such as via scenarios when assessing DV proclivity, as seen across other forensic proclivity scales (as discussed in the introduction). Overall, this Study shows that traditional gender role beliefs, specifically hostile sexism, DV myth acceptance and victim blaming attitudes are all significant predictors of DV proclivity, and this, to the current author's knowledge, had never been assessed prior to this thesis.

In Chapter 6, two studies are conducted (Studies 6 and 7) to develop the DVPPT (Dyslexia-R); a revision of the DVPPT to make it accessible to a wider population including individuals who have literacy difficulties (e.g., dyslexia, dyspraxia), and to increase its utility in understanding DV attitudes within more diverse populations, therefore fostering the intersectionality approach towards DV. Study 6 highlighted the need for a scale that acknowledges the prevalence of dyslexic traits among those who have engaged in DV offending, and it showed the utility and value this scale has among diverse participants. Study 7 determines the statistical validity of the new version of the scale through the successful replication of the factor structure of the DVPPT. This illustrates that the DVPPT (Dyslexia-R) reliably assessed the same factors measured by the DVPPT (i.e., childhood exposure to DV; relationship angry rumination; and DV proclivity and DV-related implicit theories). Overall, the findings in the thesis highlight the role of attitudes towards key predictors for DV proclivity that, to the author's current knowledge, have not been considered before within the field of DV.

3. Implications of Findings: Theory

3.1. Theoretical Implications

On the whole, the findings obtained in this thesis have important theoretical implications for the field of DV, particularly attitudes towards DV perpetration and proclivity. Firstly, the predictors of DV perpetration will be discussed, followed by the contribution of the DVPPT to DV literature.

3.2. Predictors of DV Perpetration Explored in this Thesis

Previously, DV research has often been conducted with the aim of reducing DV recidivism by using measures that identify predictive factors for re/offending. Recent research on predictors/risk factors of DV has predominantly focussed on

male perpetrators, and female victims (e.g., Costa et al., 2015). This means that the majority of findings associated with male perpetration risk factors, relate to forms of DV that males are most likely to engage in. This has implications for the reliability and specificity of findings for reducing re/offending among female perpetrators, and this leaves gaps in our knowledge of the development of attitudes towards DV offending and perpetration, the measures we use, and this is something that the current thesis set out to address. The next sections will detail how the current thesis has tried contribute some useful information towards addressing these gaps.

3.2.1. Exposure to DV during Childhood

From sources such as risk assessments, the most cited predictor of DV perpetration is exposure to DV during childhood (e.g., Kitzmann et al., 2003), but again, this has mostly been used to assess male perpetrators of DV (e.g., Hilton, Harris & Rice, 2010). In this thesis, the assessment of childhood exposure to DV as a predictor of DV was conducted using a revised version of the ‘Child’s Exposure to DV’ scale (CEDV; Edleson et al., 2008) that was developed by the current author to be gender neutral, to assess, for the first time, participants’ childhood exposure to either/both male and female DV abusers. This scale was specifically chosen as it assesses five different opportunities for exposure to DV (i.e., the level of violence, community violence, involvement in violence, risk factors associated with violence, and any victimisation), whereby each, in relation to the other constructs in the DVPPT could provide information about how DV related attitudes form, and the potential impact socialisation processes (e.g., peer groups) may have on reinforcing DV attitudes, creating inhibitors, or fostering the development of other behavioral tendencies (e.g., rumination). Also, in being able to assess both male and female abusers, the potential impact from the exposure to female perpetrators on an

individual's development, which has been neglected previously, can begin to be explored, even to a small extent. For example, it is feasible that the psychosocial risk factors could potentially be different for male and female DV perpetrators depending on these characteristics of their abuser during childhood. Previous research has looked at the types of abuse children engage in during adulthood based on their gender and the nature of DV (Herrera, & McCloskey, 2001), and in these types of studies, knowing the gender of the abuser and the nature of the abuse could build on existing knowledge.

As shown in this thesis, the forms of DV that males and females self-report having pro-attitudes towards and may use as DV tactics often varies, and this could be due, in part, to the experiences individuals have during their childhood, and how they process these events. For instance, although this has not been looked at in this context, the use of anger rumination could be used as a coping mechanism for an individual who wishes to understand the conflict between parents. Similarly, due to gender differences between males and females in aggression (e.g., Hyde, 2005) and DV behaviors (e.g., Kimmel, 2002), female offenders may, through different aggressive and abusive behaviors, contribute to the development of certain distorted beliefs about the opposite sex and other females, such as violence being acceptable and/or women being to blame. In understanding the nature of childhood exposure, the gender of the perpetrator, and how these link to reported distorted beliefs (in the DVPPT), this could shed some light onto existing theory about DV-related cognitive scripts and schema's (Eckhardt, Samper, Suhr, & Holtzworth-Munroe, 2012). Also, the development of scripts of interrelated constructs such as aggressive and violent scripts (Allen, Anderson, & Bushman, 2018). These possibilities could be explored in further experimental studies and closer investigation of the results.

The acquisition of specific behaviors regarding both male and females in relationships and generally, could be achieved through modelling and vicarious learning, as suggested specifically by the social learning theory of aggression (Bandura, 1978). Cognitive distortions could be learnt through female abusers themselves justifying their actions to their children. Being able to assess the presence of the abuse by both males and females during childhood, also could contribute to what is currently known about forms of attachment and how different forms of abuse, severity, longevity and other interrelated factors could add to risk factors such as the poor development of coping strategies, emotional regulation and displaying externalising/internalising behaviors during childhood (Card et al., 2008; Carpenter & Stacks, 2009).

Overall, this may also have implications for the development of DV implicit theories and traditional gender role beliefs that have also been shown, in this thesis, to be DV attitudinal predictors (discussed later in this section).

Additionally, the development of the measure in this thesis allows some flexibility in interpreting the attitudes and beliefs reported, if used alongside other data gathering tools, and to an extent the assessment of non-biological and/or different abusive adults during childhood. Overall, the gender neutral approach adopted in this thesis contributes to the area of DV, and provides new and novel tool. Therefore, the assessment of childhood exposure as conducted in the current research among non-apprehended, and diverse samples, provides information valuable to researchers and practitioners. It also provides insight into how childhood factor predictors may differ based on the gender of the perpetrator during childhood, and how the abuse could be processed across a broad age range since previous measures (e.g., the CEDV) focused only on children.

More specifically, in demonstrating males and females self-report using different tactics in DV situations, following different exposure to DV during childhood, and endorse pro attitudes towards DV based on certain beliefs they may have formed about traditional gender roles, and violence towards the opposite sex, this shows support for DV typologies (e.g., Johnson's control typology, 1995; 2010; Holtzworth-Munroe & Stuarts typology, 1994). It suggests that further research could consider contributing factors towards how these typologies differ across genders and better understand female offenders of DV, and the role of overlapping developmental predictors, such as childhood exposure to DV.

3.2.1. DV Proclivity and Implicit Theories

Adding to this, the socio-cognitive processes that may develop from DV experiences during childhood, and specific attitudes and beliefs about familial/parental roles and actions, reinforced during adolescence, had not been previously explored. The current thesis addressed this through a closer exploration of additional factors that could be linked to childhood exposure and DV proclivity. The design of the measure enabled the assessment of gender neutral DV proclivity scenarios and implicit theories, so that relationships could be identified between the presence of DV abuse during childhood and implicit theories. This could potentially provide an insight into potential patterns of behavior based on cognitive thoughts or beliefs endorsed across genders and in relation to reported DV exposure during childhood. Likewise, this knowledge could contribute to what we currently know about the implicit theories informing *common couple violence*, suggested to be highly prevalent and gender neutral in the UK (Gilchrist, 2009); potentially work towards understanding developmental predictors in relation to other multivariate models explaining DV (e.g., Riggs, & O'leary, 1996); and link these constructs

assessed in the DVPPT to other constructs such as affect, aggression, anger (e.g., Barbour, Eckhardt, Davison, & Kassinove, 1998).

With this in mind, prior to the current research, DV-related implicit theories had not been assessed, to the author's current knowledge: (1) with non-offenders/unapprehended offenders; (2) as a predictor of DV proclivity; (3) as part of a gender neutral scale; and/or (4) in relation to four different types of DV offending behavior. Using these methods, the current research builds on and extends the literature relating to DV implicit theories. It also provides information about whether these implicit theories/attitudes related to these implicit theories are held by individuals who have a proclivity towards DV. Also, provides an insight into gender differences across the five DV implicit theories measured by the DVPPT in relation to varied forms of DV perpetration, which could contribute to current knowledge of DV offender typologies (e.g., Johnson, 1995, 2010). Likewise, a closer look at further studies using the DVPPT across diverse samples could add to what is known about moral reasoning and female offenders during treatment (Buttell, 2002) in relation to the constructs assessed in the DVPPT. Lastly, these methods contribute to how other predictors assessed by the DVPPT may predict or be predicted by, specific DV implicit theories. As such, the findings presented in this thesis extend research into DV implicit theories (e.g., Pornari et al., 2013); and how these are used (e.g., Gilchrist, 2009; Polaschek & Gannon, 2004; Polaschek et al., 2009). For instance, here the IT's are assessed empirically, through scenarios, which is a notable contribution to current work with DV IT's, although there is need for further testing to further demonstrate its validity across more diverse and bigger samples.

In addition, it brings attention to the dominant models that have been based on what is known about male offending behaviors (i.e., The Power and Control

Wheel; The Cycle of Abuse), and how the current research, in looking at how childhood predictors play a role in DV proclivity and implicit theories held by each gender, has provided an insight into the reframing and adaptability of some of these behaviors to be used with female offenders. A word of caution however, as the studies used in the development of the DVPPT were on community and student samples, and before any definitive conclusions can be made on its usability/adaptability to inform treatment models, more rigorous testing is needed of the DVPPT on diverse general public and offender samples.

3.2.2 Angry Rumination

Likewise, the last predictor included in the DVPPT angry rumination, is an important addition to the DV literature. Before this thesis, angry rumination had not been empirically assessed, or researched, in the field of DV. Previous research has examined angry rumination in association with aggression in relationships (Pedersen et al., 2011); and how it may prolong aggressive priming following an anger-inducing or provocative experience (e.g., Vasquez et al., 2013). However, the current research has shown that angry rumination is also a predictor of pro-attitudes towards DV and proclivity and is an interrelated construct that may develop during childhood. The theoretical implications of these initial findings could be further examined in relation to other individual factors (e.g., emotional intelligence), gender differences and could be used to gain more in-depth knowledge of how these constructs influence attitudes towards DV. This could be achieved through further studies using behavioral measures alongside the DVPPT with more diverse samples (e.g., displaced aggression).

In addition, the findings in this thesis that angry rumination towards an intimate partner following events that occur with that partner (i.e., relationship angry

rumination), could contribute to the explanation of ‘situational couple violence’ (Johnson, 2010). This is a form of DV used to describe instances of occasional/supposedly random violent outbursts, which does not depict the general pattern of DV within the relationship (Johnson, 2006). For instance, an individual could be provoked by their partner, not retaliate immediately after the incident due to situational factors (e.g., in front of friends or in public), begin to engage in angry rumination, and later display inter-partner aggression, which may appear completely random to the victim. This behavioral pattern also illustrates how displaced aggression may relate to DV following a provocation by a third party, as discussed in this thesis. Interestingly, this form of DV has been shown to have some degree of gender symmetry, and this highlights the usefulness and strength of the DVPPT’s gender neutrality. This suggests that there is a need for further exploration of angry rumination and displaced aggression, in relation to DV, and that they could be incorporated into existing theories/perspectives of DV. For example, these associations between angry rumination, aggression and pro-attitudes towards DV could support the intergenerational transmission model of DV across generations, for some individuals, as this remains a model that has its limitations, given that there are individuals who have been exposed to childhood DV and have not become DV offenders in adulthood. For instance, one aspect could be that these individuals have DV proclivities, score highly on the predictors included, but they have also developed some, still unidentified inhibitors that actively stop them engaging in offending behavior and/or have been exposed to protective factors that counter these risk factors. This is valuable and feasible, given the identification of inhibitors is a notable additional aim of using proclivity scales with unapprehended samples (e.g., Alleyne et al., 2015).

However, these findings do highlight the importance of the intersectionality of DV within the nested ecological model, supported by previous work (e.g., Heise, 1998), and emphasise the importance of further studies with more diverse samples and experimental manipulation of levels of displaced aggression, presence of anger ruminative tendencies, and DV instances during childhood. Following this, it suggests a need to further explore how these DV-related constructs can be intertwined across more than one domain within the nested ecological model and be reinforced at each level in conjunction with other predictive factors explored in this research (i.e., implicit theories and traditional gender role beliefs).

3.2.4. Traditional Gender Role Beliefs

In addition, this thesis has empirically shown how traditional gender role beliefs relate to DV proclivity and DV-related implicit theories. Results from Study 5 presented preliminary evidence that these gender beliefs could predict DV proclivities and DV implicit theories (relating to four common forms of DV), among un-apprehended individuals and provides an avenue for further investigation. For instance, this knowledge could be used to examine the differences between how males and females construct these gender role beliefs of DV; their specific forms of DV proclivities and implicit theories in relation to these gender beliefs; and identify any inhibitory mechanisms that un-apprehended individuals may have in comparison to apprehended DV offenders. It must be noted that the need to further understand contributing factors towards certain proclivities and identifying inhibitors/constructs that may explain non-offending individuals who endorse certain beliefs and proclivities, have also been made by previous researchers looking into offending behaviors such as fire-setting proclivity (e.g., Gannon, & Barrowcliffe, 2012). The more we know about the unapprehended perpetrators thoughts, attitudes and

motivations towards certain offenses (e.g., anger motivated, entitlement, need for control), and how they may have developed (e.g., modelling and reinforcement of certain societal norms) is a stepping stone in research. Although the DVPPT is a long way away from being able to do this, the studies herein show potential for what future research can consider and the further aims of the current author.

In addition, the association found between DV proclivity and implicit theories, DV myth acceptance and victim blame attitudes could help to further understand how traditional gender role beliefs influence DV proclivity and the development of DV implicit theories, and be used to inform DV research. For instance, the identification of relationships between specific DV implicit theories and traditional gender role beliefs could provide an indication of which distorted thoughts/justifications are more likely to be related to the nature of benevolent or hostile sexist beliefs, according to the self-reports provided.

To summarise, the studies conducted in this thesis that explore traditional gender role beliefs as being a predictor of DV adds to past research (e.g., Berkel et al., 2004), but more importantly, this encourages future research to consider how the factors introduced by intersectionality the DV (e.g., class, ethnicity) contributes to these views, not solely how feminist ideology frames these ideal. Also, future studies could consider how the development of these gender role beliefs from childhood are changed through socialisation processes, depicted though each level of the nested ecological model (Dutton, 1995), and in turn influences attitudes towards DV offending and proclivity.

3.2.5. All Predictors Discussed in Thesis

Collectively, these predictors and the assessment of DV proclivity, could contribute to the existing models of DV. For example, the knowledge that traditional

gender role beliefs relate to DV proclivity, could be used to build on the nested ecological model (Dutton, 1995), assessing at which levels these beliefs and attitudes are introduced and reinforced. For instance, if these are introduced and reinforced in the first three levels, then society, policy and the state in the fourth level could aid in modifying them to be less stereotypical throughout the previous levels where possible. While this may be plausible in future research, it must be noted that the DVPPT, although statistically valid and reliable, does require further rigorous testing involving diverse samples with larger numbers, and involving other behavioral constructs, such as the CTS2, in order to begin to contribute to existing models and ideas related to DV proclivity.

The associations found in Study 5 provide new information about male *and* female attitudes towards perpetration of DV, the attitudes individuals hold towards DV and their gender roles beliefs. It is important to note here that the gender neutrality of the DVPPT shows that males and females engage equally in DV proclivity. For example, there were no differences between males and females in their responses to the DVPPT and the CTS2, and this may suggest that female perpetrators have similar predictive factors and use similar tactics during conflict, and therefore need to be included more in theoretical explanations for DV. Comparatively, it may also provide more support for attitudinal measures not being able to reliably distinguish between individuals with criminal tendencies/attitudes related to DV and those that do not (e.g., Eckhardt & Dye, 2000).

In addition, in view of the regression models assessing how well the responses on the DVPPT predicted DV behaviors assessed by the CTS2, it was found that the DVPPT was a significant predictor of DV tactics among males than females. This would suggest that potentially, the exploration and development of

different theoretical explanations may need to be developed to explain these gender differences. This presumption is supported by previous work that has attributed different factors towards male and female perpetrators of DV (e.g., Kernsmith, 2006; Kimmel, 2002), and highlights the importance of further research into the intersectionality of DV to determine the extent of these gender differences through all stages of the nested ecological model (i.e., future studies with samples across different cultures, wider age range and further validating the DVPPT through behavioral manipulation studies). Simply put, a more in depth investigation into the subtle nuances among female DV offenders needs more attention from both researchers and practitioners.

3.3. The Potential Contribution of the DVPPT to Assessments of DV attitudes

As discussed in Chapter 2, most current DV tools were originally developed for heterosexual male perpetrators; many lack statistical validation; focus on historic/distal risk factors, and rely on past information (e.g., court records, arrests), that may be limited or unattainable. The development of the DVPPT introduces a new instrument that measures attitudes towards DV predictors (i.e., historic, socio-cognitive, and behavioral) together with DV proclivity in relation to a variety of forms of DV and could be used to assess dynamic risk factors in future. However, due to some results presented in the thesis regarding the reliability of assessing each construct separately as a predictor of another construct, it may have been better to assess the proclivity with the scenarios, and assessing the implicit theories separately, potentially by individual hypothetical situations for each. That said, this structure did allow for the assessment of attitudes, implicit theories, and proclivities, which does build on the current findings related to social information processing

(Anderson, 1995), as it not only assessed attitudes, which can be present in violent and non-violent DV abusers (Eckhardt & Dye, 2000), but it considers how an individual interprets DV situations through scenarios, and due to motor imagery, taps into their automatic processing and emotive reasoning, which are all involved in how individuals process their social environment.

Likewise, it is a measure that is interpreted using the actuarial approach, as it is scored numerically. However, the DVPPT may also benefit from a degree of structured professional judgment, given the nature of how the DV-related constructs relate to each other and the design of the DV proclivity scenarios. In addition, it would also be worth considering how these constructs could be translated into a form suitable for an interview or as a way to start conversations relating to these constructs at the start of treatment to gauge initial attitudes towards these constructs. For example, incorporating the same level of flexibility in its usability as the Danger Assessment Revised (as discussed in chapter 2).

Overall, the DVPPT has a valuable ability to assess the more **proximal antecedents** of DV offending attitudes. This is beneficial as it helps to explain what thought processes, attitudes and beliefs individuals may have that to some extent informed their understanding and interpretation of relationships and therefore how to respond in certain situations. For example, within a DV relationship, an example of a cognitive script activated by a violent man could include “It’s all her fault”, “I’m furious at her”, and “she needs to be taught a lesson” (p. 142, Eckhardt & Dye, 2000). This also relates to the formation of maladaptive schemas for some individuals who have been exposed to childhood DV (e.g., Ross & Hill, 2002) and how this may contribute to adult behaviors in relationships. Likewise, the associations between high cognitive load and displaced aggression (Vasquez, 2009;

2016) in the context of an intimate relationship. For example, individuals in a specific situation may react quickly using violence or abuse, in a way they have seen before and/or has been successful before, as a default reaction due to being overloaded cognitively. This contribution to cognitive models, is important as there is evidence that shows that the attitudes assessed through attitudinal measures across violent and non-violent males, may not necessarily differ (Eckhardt & Dye, 2000), therefore, the inclusion of a cognitive component in the DVPPT is a beneficial contribution as it allows for comparisons across cognitions as well as attitudes and proclivities.

The DVPPT also shows how childhood exposure to DV, angry rumination, implicit theories and proclivity are all interrelated constructs that provide new insights into the propensity of individuals to form DV offending attitudes.

Considering many attitudinal tools primarily assessed one or two forms of DV, for example the Abuse within Relationships Scale (AIRS; Borjesson, Aarons & Dunn, 2003), the DVPPT being able to assess more than one constructs and DV proclivity in a single tool is a notable strength. In assessing these constructs it taps into the nested ecological theory of DV and the intersectional nature of this public health problem, as it creates the potential to explore each construct throughout development, interactions and across both genders, in future studies.

In addition, the DVPPT has also been developed and validated using samples of both students and the general population across different nations. This supports the validity and **generalisability** of the results reported in this thesis which capture in addition to married and co-habiting couples, the factors and proclivity among young dating couples, a group from which the highest rates of DV has been recorded (Capaldi et al., 2012). However, it must be said that, in view of other DV tools (e.g.,

the CTS2), the DVPPT is lacking in further validation and experimental studies with offender populations, including those in the community, shelters and seeking health care.

Lastly, the revised version of the DVPPT (developed in Study 7), makes it accessible to individuals who have literacy difficulties, and who may suffer unique frustrations but who may have been excluded from research in this area previously. Thus, the DVPPT has utility with diverse forensic populations, and can therefore contribute towards the intersectionality in DV research.

3.4. Practical Implications

Collectively, the findings from this thesis have several vital implications for addressing an important public health problem, and for individuals who may have DV proclivities with little/no inhibitory mechanisms in place (i.e., are at risk of offending or are un-apprehended offenders). Before discussing some of these implications it must be highlighted that the DVPPT is an attitudinal psychometric tool that has shown to have strong statistical reliability and construct validity across all the studies reported in this project. However, further experimental studies need to be conducted before the DVPPT can reliably be used in an applied setting. For instance, in order for the DVPPT to be reliably utilised across various samples, more rigorous testing is required. While the studies included in this thesis demonstrate a good level of statistical reliability and validity, the samples have consisted of members of the general public who have access to crowdsourcing platforms such as MTurk, and student populations enrolled on a psychology degree. These samples are not fully representative of individuals who we would expect to have proclivities towards DV or potentially not be more vulnerable to socially desirable responding. Likewise, it is expected that recruiting samples from more diverse samples (e.g.,

across different cultures, gender, sexuality, wider age range), and applied settings such as the prison service, DV perpetrator offender treatment programs, those in shelters may provide further evidence towards making the DVPPT an overall reliable tool for the majority of individuals. Likewise, further studies involving the same suggested samples and are required for the DVPPT (Dyslexia-R) given the heterogeneous nature of learning disabilities (e.g. Leinonen et al., 2001) across different levels of literacy abilities.

Overall all, the results reported in this thesis demonstrate the validity and reliability of the DVPPT as a newly developed form of assessment. There are four potential practical uses that the current author suggests for the DVPPT, once these previously suggested further studies have been conducted. **Firstly**, the DVPPT could be used to identify individuals who self-report having proclivities towards DV behaviors assessed by the DVPPT (e.g., physical violence/abuse, sexual violence/abuse, controlling/financial abuse and psychological/emotional abuse) towards their partners. This information, would enable researchers and practitioners to not only explore how an individual's proclivity is related to specific DV implicit theories, and to the type of childhood DV exposure they may have experienced, but also to investigate the inhibitory mechanisms that prevent DV offending. This would be a valuable future contribution and is supported by previous studies which demonstrate how the inclusion of a proclivity component is a useful strength of a forensic tool (e.g., Alleyne et al., 2015). For instance, the use of assessing those prone to firesetting in the community using the Firesetting Proclivity Scale (Gannon & Barrowcliffe, 2010), and sexual harassment proclivity among males and females (Bartling & Eisenman, 1993). In the same light, the DVPPT, following further experimental and validation studies, may be able to be used to assess DV proclivity

among DV offenders in treatment, as a means of measuring the extent to which their attitudes towards DV changes over time and in light of the treatment provided. Their change in reported attitudes towards any previously reported angry ruminative tendencies or implicit theories would prove most useful to practitioners working with them, as a source of additional information they may consider, alongside fully validated risk assessments. In addition, previous work involving proclivity scales alone, has suggested their invaluable use in contributing to research and treating apprehended offenders (e.g., Alleyne et al., 2015)

Secondly, the DVPPT could identify similarities between those who have offended in the past and those with proclivities but who may have inhibitory mechanisms that prevent them from engaging in DV behaviors. This has been included in the aims suggested for previously developed proclivity scales, such as the Animal Abuse Proclivity Scale (Alleyne et al., 2015). This would not only further validate the DVPPT in its ability to assess DV predictors and proclivity, using an offending sample, as previously suggested, but it may create a pool of new associations and mapping of behaviors. This information could be used to formulate patterns of attitudes towards predictors and implicit theories that differ across individuals who have offended, those who have but have not been apprehended, and those who have inhibitory mechanisms as well as DV proclivities. Again, the more specific the associations across factors assessed by the DVPPT, the more in-depth our understanding of DV perpetration and the more informed research could become.

Thirdly, the DVPPT could provide information about individuals who have a childhood history of DV, and how this may influence their DV proclivities or factors that contribute towards the development of DV proclivities; ruminative tendencies; whether they hold any DV-related implicit theories; and have strong traditional

gender role beliefs. This combined knowledge could be useful in informing early educational programs in schools in relation to traditional gender role beliefs, gender stereotypes and discriminatory attitudes. This would be especially useful following further studies recruiting samples that are from different socio-economic backgrounds, from different cultures and religious upbringings, as this would help to understand the prevalence of socially constructed ideals, and demonstrate the need for more research that is based on the intersectionality approach to DV, as suggested by previous researchers in the field (e.g., Sokoloff, & Dupont, 2005).

There are also implications for providing this information to counselling services for individuals experiencing relationship problems, as the DVPPT has been shown through the studies in this thesis, to reliably identify the nature of childhood DV, specific DV-related implicit theories and particular anger ruminative tendencies, based on their self-reported attitudes. Likewise, the DVPPT could be included in the assessment of youth in care homes who may be displaying internalising and/or externalising behavior (see Chapter 1), linking to a history of/existing childhood DV, and who may have developed angry ruminative tendencies as a means of processing the abuse, and aggression as a common form of response. While this would not be the case for everyone, given the vast range of implications of childhood DV (e.g., Carlson, 2000), displaying internalising/externalising behaviors has been suggested to be one of the most common indicators (e.g., Kitzman et al., 2003; Rossman, 1998). In addition, being able to intercept an individual's life trajectory at this stage would be beneficial, and allow for positive socialisation processes and support, which may reduce the likelihood of intergeneration transmission of violence (if this is the case) or limit the development of long lasting distorted beliefs regarding DV and the opposite sex.

Lastly, the DVPPT (Dyslexia-R) could ensure the assessment of each of the above factors with individuals who have literacy difficulties, specifically dyslexia. For instance, in probation services, the DVPPT (Dyslexia-R) could contribute to on-going rehabilitation following release from prison, for those who may have literacy difficulties and/or undiagnosed dyslexia, which has been shown to be common amongst offenders (see Chapter 6). However, as previously stated, this would only be possible after further experimental and validation studies with offender samples, at all stages across their contact with the criminal justice system, before this proposed implication could be possible. Likewise, the DVPPT (Dyslexia-R) could also be used in police stations to help identifying those individuals who have self-reported attitudes towards DV predictors and DV proclivity, and contribute to what we currently know about individuals who have been arrested for DV offending.

In addition, one of the most valuable potential contributions of the DVPPT for DV practice, is the introduction of a measure that can be used to assess self-reported DV proclivity and key predictors (i.e., two of which have not been assessed in relation to DV before), for *both* male and female perpetrators. This is a key contribution to the field by the DVPPT as very few previously developed tools are gender neutral, as discussed in chapter 2, and given the commonalities and differences across both offender types, for instance, the severity of physical violence (e.g., Feder, & Henning, 2005). Likewise, extensive research linking male victims of childhood DV with adulthood DV (e.g., Stith et al., 2004), in line with the intergeneration transmission of violence theory, would suggest other developmental risk factors, assessed by the DVPPT may be more prevalent among female perpetrators. This could add to what is currently known about the developmental predictors for female DV offenders, using the same tool, and potentially, following

further studies, provide information about their partners perceptions in relation to their self-reported attitudes towards DV.

Lastly, this quality of the DVPPT could encourage future researchers to develop/revise DV tools to be gender neutral, depending on the constructs measured and what is currently known about this offending group. For example, the Abuse within Intimate Relationships Scale (AIRS; Borjesson, Aarons & Dunn, 2003) could be adapted to assess abusive behaviors among young women, using the strategies detailed in this thesis, and could be combined with items from the DVPPT and the CTS2, to assess more contemporary, social constructed, and intersectional views and attitudes towards DV, specific behaviors of DV, targeted predictors and proclivities.

In short, the DVPPT (1) is the first DV attitudinal tool that includes a measure of DV proclivity; (2) is useful for all individuals regardless of gender or literacy ability; (3) assesses immediate antecedents to DV attitudes based on recent research; (4) assesses DV-related cognitive mechanisms; (5) identifies non-gendered attitudes towards DV perpetrator motivations; and (6) measures important cognitive processes and the justifications individuals apply to their DV proclivities or pro-DV attitudes.

As a result, as previously suggested, the DVPPT could be used to measure the progress of DV treatment programs. As the DVPPT assesses specific developmental predictors (i.e., exposure of childhood DV, angry ruminative tendencies, proclivity to DV and DV implicit theories), law enforcement officials could formulate a report identifying which of these predictors have changed/improved from previous self-reports on the same measure, therefore assessing these as additional dynamic risk factors of DV. Due to the revised DVPPT (Dyslexia-R) version, the utility and usability of this could also be used within the

community and with more diverse rural samples, contributing to the intersectionality of DV research. For instance, given the heterogeneity of learning disabilities such as dyslexia, conducting a further study recruiting college students, from a deprived area and assessing their attitudes towards authority, attachment style and using the DVPPT (Dyslexia-R), the results could provide initial information about how attachment style, obedience and DV predictor and proclivity relate to each other, from a more diverse sample to the ones detailed in this thesis.

Similarly, for example, if an individual indicated through self-report on the DVPPT/DVPPT (Dyslexia-R) that they had angry ruminative tendencies, endorsed the ‘violence/behavior is acceptable’ implicit theory, and showed a proclivity to physical violence, schema-focused CBT could be recommended to target these underlying cognitive processes. However, a word of caution here, as this would only be possible following more rigorous testing on the DVPPT (Dyslexia-R).

Therefore, following further revisions, and psychometric and experimental testing, the DVPPT could be used as a measure of victim’s attitudes about their partners DV predictors and proclivity, to possibly identify certain attitudes the perpetrator might hold towards DV if they are not present or willingly admit they may need support. The inclusion of partners’ opinions and attitudes has been shown to be an invaluable contribution to the development of DV attitudinal scales, such as the Propensity for Abusiveness Scale (PAS; Dutton, 1995). This may also help provide the (suspected) perpetrator with some useful information about their actions, and help them identify possible triggers and predictors regarding their behavior. It may also help professionals to identify individualised interventions for each DV offender, mapped up from information taken from the DVPPT.

Importantly, another implication could include the development of a *short-form version* of the DVPPT/DVPPT (Dyslexia-R) to further reduce its administration time. The DVPPT and DVPPT (Dyslexia-R) takes approximately 20-30 minutes, which in some settings may be too long. It is important to highlight here that alongside the contribution the DVPPT could make to enhance the understanding of attitudes towards predictive factors of DV perpetration, it considers the importance of the context in assessing DV. The DVPPT achieves this through the use of motor imagery in the DV hypothetical scenarios related to DV behavior, and this gives an individual the opportunity to engage in the cognitive processes that they would engage in during an actual DV incident. This allows the role of other unconsidered cognitive mechanisms to be explored, (e.g., angry ruminative tendencies).

Likewise, this allows for further exploration into how other behavioral measures would relate to these DV-related constructs. For example, male and female participants could be recruited as a purposive sample, and they could be primed for aggression or anger, and then given the DVPPT and displaced aggression questionnaire, and the results could be analysed separately by gender. This could provide initial information about how each gender's responses are influenced after being made to feel aggressive/angry towards a confederate (i.e., whether displaced aggression impacts their attitudes towards DV related constructs).

Also the gender neutrality of the DVPPT, allows an assessment of DV proclivity and attitudes towards DV among individuals in *same-sex intimate relationships*. In view of what is currently known about same-sex domestic violence (SSDV), there are some similarities such as how abusive behavior begins and is maintained within an intimate relationship. However, one main concern with regards

to SSDV, is the fear of homo-negativity that has been shown to occur when a victim comes forward and reports the abuse to the police (Potoczniak, Murot, Crosbie-Burnett, & Potoczniak, 2003; Tesch, Bekerian, English, & Harrington, 2010). The DVPPT demonstrates good reliability for assessing factors associated with heterosexual *and* homosexual relationships simultaneously and may help promote the importance of addressing attitudes towards DV among those in same-sex relationships. However, it must be reiterated that further fine tuning and validation of the DVPPT is needed before revisions can be made to it to be able to assess DV attitudinal predictors and proclivity among same-sex intimate partners. For instance, as suggested by the intersectionality approach to DV, external stressors placed on an individual that may belong to a different race or ethnicity, or may be in a culture that has very different view of DV have a detrimental impact of an individual's well-being (e.g., Sokoloff, & Dupont, 2005). When considering these implications in addition to one's sexuality, and potentially traumatic or harmful childhood experiences, with/without exposure to DV, there is the potential for additional and different developmental predictors and factors contributing to DV proclivity among homosexual individuals. The DVPPT is far from being able to achieve this, but it is worth acknowledging the possible potential it may have in the future, following numerous experimental and field studies.

4. Limitations and Future Research

The research reported in this thesis has contributed to the area of DV, and specifically about attitudes towards DV perpetration and proclivity. The analyses conducted have demonstrated the statistical and conceptual validity and reliability of the newly developed DVPPT, and two important new predictors of DV have been identified which will help to inform theory. However, there are several limitations

that need addressing by future research. This section will outline these limitations and suggest future channels of research to address them.

Initially, one limitation of the scale construction itself must be noted. The revised version of the CEDV, the CEDV-R were all ideally supposed to be framed in the past tense, however this was not carried out for all items, in studies 1-6. However, the results collected across the first six studies in this thesis indicate a consistent interpretation of the items, and that participants followed the instructions (i.e., past childhood experiences) well. In the initial pilot Study and the five subsequent studies in the thesis, this was not highlighted by any of the participants as something that they were confused/hesitant about, or were unsure how to interpret. In Study seven, this oversight in phrasing was rectified and all items were presented in the past tense. In this Study, the scale maintained its high internal consistency and successfully replicated the factor structure of the original DVPPT. While this demonstrates the statistical reliability and validity of the DVPPT, addressing this error in the revisions of the CEDV and conducting further analysis in order to assure its reliability was a learning process that informed the careful construction of the DVPPT (Dyslexia-R).

A further issue is that all the studies conducted in this thesis used online *self-report methodology*, which some researchers have stated is unreliable and could introduce bias due to the common method variance (Podsakoff, MacKenzie, Lee, & Podsakoff, 2003). However, other researchers have stated that this method, is reliable when assessing (1) experiential constructs (Chan, 2009); and (2) attitudes or perceptions of undesirable and criminal behavior, such as child molestation (Gannon & O'Connor, 2011). It has also been shown to be a less invasive method than other implicit measures (Alleyne et al., 2015). It must also be noted that many proclivity

tools (e.g., the fire-setting proclivity scale, the rape proclivity scale) have been developed using self-report, and many attitudinal measures have used a similar developmental and validation process (e.g., Denson, Pedersen & Miller, 2006; Straus et al., 1996, Sukhodolsky, Golub & Cromwell, 2001), all of which have been found to have good reliability and construct validity.

In addition, samples recruited in studies 1, 3 and 4 used an online *sampling method* called Amazon Mechanical Turk (MTurk), which comprised primarily of USA residents. Although, findings from these studies could have limited generalisability, there is much research that suggests there are strengths to using MTurk which are comparable to traditional forms of data collection. For example, MTurk responses have been found to be as reliable as community samples regarding attention participants pay to studies; are consistent with decision making biases found in student and community samples; and this method enable the collection of online responses very quickly (Goodman, Cryder, & Cheema, 2012). Similarly, in studies 5, 6 and 7 participants were recruited using Prolific Academic which is an online crowd sourcing database many researchers use to recruit a random sample across the general population (Behrend, Sharek, Meade & Wiebe, 2011) because screening for specific qualities (e.g., 18 years and above; relationship history; literacy difficulties) is quick and easy; and monetary rewards are given electronically for participation.

It is important to reiterate that the benefits for online studies include: flexibility of when and where to participate; privacy during completion; reduction of any uncontrolled experimenter bias that paper-based studies are more vulnerable to; provides access to diverse and specific groups of individuals that would be difficult to recruit face-to-face, for example, assessing attitudes towards cyber-stalking, or

attitudes of people who hold strong political views (Wright, 2005). However, the sample recruited in Study 2 was comprised of students, which has been suggested to be a homogenous group and not nationally representative (see. Peterson, 2002). Although, more recently, other researchers have demonstrated that inferences made from student samples are representative of the general public (Wiecko, 2010). With this in mind, it would be beneficial for future research to recruit a community sample during or recently after the completion of a DV perpetrator community treatment program to DV proclivity and predictors, as a comparison sample, and inform further validation studies.

A further limitation is that a measure to control for *socially desirable* responding was not included in studies 1-4, 6 and 7, as it was not deemed necessary, by the author, to include during the development of the DVPPT and the DVPPT (Dyslexia-R), to reduce the overall time of the Study. In addition, previous researchers have stated that the use of scenarios have been shown to reduce social desirable responses (Chiroro, Bohner, Viki, & Jarvis, 2004). However, it is advisable to include a measure of social desirability when using self-report methodology. Although this was not assessed in the developmental stages of the DVPPT, an impression management scale was used in Study 5. In this Study, individuals were prone to desirable responding when assessing personal DV proclivity. However, this effect disappeared when assessing the predictors of DV proclivity and implicit theories via scenarios. Despite these encouraging results, future researchers may consider a measure of social desirability to be necessary at all stages of data collection.

Overall, throughout the process of developing and validating the DVPPT, much of the emphasis during the planning stages was placed on the statistical

validity and reliability and the conceptual understanding of DV behaviors and how the predictors and proclivity interlink. The overall structure was based on previous research on the stages of tool development (e.g., the steps used to develop the DAQ), and the layout and terminology used in proclivity scales with forensic populations (e.g., the fire-setting proclivity scale by Gannon, & Barrowcliffe, 2012, previously discussed). It would however, have been interesting to also consider (1) a mixed methods design for collecting data, whereby information about their interpretation of the scenarios or their IT's could possibly be expanded on; (2) explore the possibility of adapting the scale into an interview style data gathering exercise; and (3) consider a comparative measure to the CEDV that assesses all the same factors, but in a different format/tone, as retrospective memory is sometime unreliable, which was not controlled for in the current research. These are aspects that are good to consider in future scale development and for any future studies and adaptations of the DVPPT or DVPPT (Dyslexia-R).

Overall, despite these limitations, both the DVPPT and the DVPPT (Dyslexia-R) have demonstrated good patterns of concurrent validity and reliability across the studies reported in this thesis; they have presented new predictors of DV that increase the predictive power of existing DV tools; and the general trends reported here are also supported by past research. Initially, future studies could aim to *further validate* and empirically test the DVPPT and the DVPPT (Dyslexia-R) across wider, more diverse samples; by incorporating other interrelated constructs (e.g., deviancy, antisocial tendencies, views towards violence); and possibly implementing the test-retest methodology to add to the statistical reliability of both tools and assess their reliability across time intervals (e.g., at the beginning and end of offender treatment). The DVPPT could also be used in longitudinal research

examining how different environmental and individual variations influence the proclivity of DV perpetration among those who, as children, were exposed to DV. Likewise, there are no longitudinal studies that currently explore the long-term impact of childhood exposure to DV (Carlson, 2000; Wolfe et al., 2003), and the use of the DVPPT in such studies would build on established research. As mentioned previously, it is suggested these tools undergo further validated through the use of more experimental and behavioral studies to assess the robustness of both tools; further demonstrate the construct validity through the replication of the factor structure; and explore the gender differences across related constructs and how they influence attitudes towards the predictive factors and proclivity in the DVPPT and DVPPT (Dyslexia-R).

Next, in view of the predictors assessed by the DVPPT, specifically childhood exposure to DV, other studies could consider *protective factors* present during childhood and adolescence, as these are not directly assessed by the DVPPT. Researchers have suggested that children who have a range of protective factors in place process DV abuse differently than those who do not (e.g., Martinez-Torteya, Anne Bogat, Von Eye & Levendosky, 2009). For example, having formed a secure attachment with their non-abusive parent, and maintaining positive peer relationships has been shown to reduce the negative effects of DV during childhood (Holt et al., 2008). Therefore, future research could employ the DVPPT as well as assessing levels of protective factors to examine possible links between them and the factors measured by the DVPPT (e.g., prosocial peer group and the DVPPT or DVPPT (Dyslexia-R)).

In addition, other researchers could use the DVPPT in conjunction with specific *behavioral measures* (e.g., impulsivity), as mentioned previously, in order

to assess how the DVPPT variables relate to the additional behavioral component. Similarly, to the author's current knowledge, no other measure has examined angry rumination within the context of DV as a predictor for DV proclivity. Thus, future studies could build on this new association, and explore additional mediating and moderating factors. These further studies may help to show how various emotional, social, cognitive and behavioral constructs relate to the DVPPT/DVPPT (Dyslexia-R), and, if conducted with more diverse samples, would further highlight the importance of the intersectionality approach toward DV research, by capturing more individuals who experience additional external stress and strain due to other factors such as race, ethnicity or status.

Subsequently, further studies could explore the associations reported in Study 5 between *DV proclivity*, *DV myth acceptance* and *DV victim blaming attitudes*. As this thesis presented the first Study to assess these constructs, further exploration of possible mediators and moderators is encouraged. Although there are parallels between the relationship between DV proclivity, DV myth acceptance and victim blame within the sexual violence literature (Bohner et al., 2006; Chiroro et al., 2004; Viki & Abrams, 2002), these relationships and motivations have yet to be empirically tested using a DV proclivity tool. Similarly, the role of traditional gender role beliefs and DV constructs needs more exploration across diverse samples and other social influences (e.g., peer groups). This would contribute to our current understanding of the development of DV attitudes across all social domains in the nested ecological model and highlight how these constructs may explain the distinction between those who develop pro-attitudes towards DV and those who do not, according to the Intergenerational Transmission explanation of DV.

Considering these limitations, future studies could further validate the DVPPT and the DVPPT (Dyslexia-R) across diverse samples, explore the predictors identified here in relation to other social constructs and assess DV proclivity using other behavioral studies and paradigms.

5. Summary

The current research is the first, to the author's current knowledge, to develop and validate a DV instrument that reliably (both statistically and conceptually), assesses attitudes towards key predictors of DV perpetration (i.e., childhood exposure to DV, angry rumination and DV implicit theories), and DV proclivity towards four main forms of DV (i.e., physical, sexual, controlling/financial, and psychological/emotional abuse) in a single tool. An added value of this tool is its use of randomly selected samples of UK students, USA general public and individuals across the globe (e.g., Australia, Canada, India, and Portugal), during its development and preliminary validation stages. Therefore, the main contribution to DV theory research is the introduction of an attitudinal measure that has strong psychometric properties, is gender neutral, and can assess new (proposed) developmental predictors of DV and DV proclivity in a single tool. In addition, this tool has the potential to contribute to our current understanding about the development of pro-attitudes towards DV and proclivity in line with the intersectionality approach to DV, through its unique strength of being accessible to individuals of varying literacy ability, which is common in more diverse populations (e.g., low socio-economic status, low employment).

Furthermore, the DVPPT has established that childhood DV exposure, angry rumination and DV implicit theories are important interrelated predictors of DV proclivity and they may influence the development of pro-attitudes towards DV

perpetrating tendencies from childhood. It is important to note here that the inclusion of angry rumination provides unique information about how likely individuals are to ruminate about anger-inducing events that occur specifically within the context of their relationship, and that this may influence their DV proclivity. Additionally, the DVPPPT assesses specific DV-related implicit theories (yet to be empirically tested), that individuals may hold in relation to the most prevalent forms of DV.

There are also important implications for research and practice, which are heavily centred on potentially measuring the progress of DV offender treatment, and the introduction of new contributory factors of DV perpetration, which may be viewed as dynamic risk factors (following further investigation). Historically, the DV research focus has been on victims of DV, however the findings presented here suggest that there is more work that can be done to support individuals who are currently in treatment programs. For instance, the identification of DV proclivity could, via appropriate measures, potentially prohibit further reinforcement of cognitive distortions and socio-cognitive processes before they become embedded/fixed in the potential perpetrator's mind, which may influence how they engage with common perpetrator treatments such as Cognitive Behavioral Therapy (Eckhardt & Crane, 2014; Gadd, 2004; Polaschek et al., 2009). Ideally, in addressing this, information needs to be communicated to schools and care homes about the relationship between childhood exposure to DV, and the presence of externalising behavior (e.g., aggression), as these could be early indicators of individuals forming angry ruminative tendencies, and/or developing distorted beliefs about relationships and gender roles. This could be orchestrated through researchers providing a seminar series on DV awareness and unacceptable dating behaviors in schools.

Similarly, the DVPPT could be used to assess early attitudes towards these predictors when identified during adolescence, which may help inform early interventions (e.g., parents being made aware of what these behaviors may mean at this early stage and how to nurture them appropriately). This could also help identify and ameliorate negative attitudes being reinforced by peers (e.g., normalised violence towards girls/women), and help to reduce the risk of the development of pro-attitudes towards DV. Again, the introduction of psycho-educational programs and interventions into schools and care homes could be a valuable step towards addressing these issues. Research shows that the developmental impact of DV is most traumatic and long-lasting among children ages 12 and under (Pepler et al., 2000). It must however be reiterated, that these practical implications can only be possible following further rigorous testing of both the DVPPT and DVPPT(Dyslexia-R) in experimental and behavioral studies with diverse populations. To this end, the findings herein suggest that the criminal justice system and associated governing bodies (e.g., education, police service, probation, counselling services) may play a vital role in providing the channels by which early identification of individuals who have a proclivity towards DV perpetration is made possible, following further investigation and validation of these tools.

Overall, the work reported in this thesis is a valuable step towards DV research on the development of pro-attitudes towards DV perpetration and proclivity, and the DVPPT has been shown to be a promising new DV tool that builds on existing instruments. Hopefully this thesis can be a building block towards influencing the perceptions of DV perpetrators, as individuals who are vulnerable to these predictors and can become victims of the factors that influence DV abusers. By identifying predictors and DV proclivity, we are a step closer to understanding the

onset of abuse, from the child to the adult – and how the victim may become a perpetrator:

*“You drained me of my identity and injected self-doubt into my veins,
Left me questioning my own sanity, walking around aimlessly.
At war with my own body every day, trying to scrub your heavy words off my
skin.
My mental state has been shaken to its core, I don’t know who I am
anymore”*

– E.S. (anonymous source)

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