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Narcissism in females: Relationships to attitudes towards violence, sexual coercion, and offending behaviour in a non-forensic sample

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Abstract

This thesis aimed to contribute to the very little we know about narcissism in females, specifically concerning attitudes towards violence and actual offending behaviours. Four individual research articles are presented, and taken together, produce a modest contribution to our pre-existing knowledge on female narcissism and criminal attitudes and behaviour. Studies 1 and 2 investigated the relationship between narcissism, sexual coercion, and attitudes to violence with a sample of 329 participants using self-report measures, and study 3 focussed on the link between narcissism and offending behaviour with a sample of 632 participants, all of which were conducted using self-report measures. Study 4 was a lab experiment which investigated the link between narcissism, social exclusion, and attitudes towards violence using 160 participants over 2 individual experiments, adopting both self-report measures and lab-controlled activities on a computer.

In summary, the results suggest that narcissistic females are just as likely to engage in sexually coercive behaviour and to have accepting attitudes towards violence as males are. Further, they are also more likely than males to have actually engaged in violent offending behaviour. In study 4, a new research tool, Cyberpass, was created and tested to more effectively study social ostracism in those individuals with high levels of narcissistic traits. All findings demonstrated that maladaptive narcissism (Entitlement/Exploitativeness) is more prevalent in females, specifically when related to sexually coercive behaviour, attitudes towards violence, and a variety of offending behaviours. Overall, the findings from this thesis demonstrate the importance of including females in studies on narcissism, specifically concerning types of offending behaviours and have a number of theoretical and practical

implications. For example, the findings support and expand on several well-established theories within the field; the narcissistic reactance theory of rape and sexual coercion, and the threatened egotism ideology. In practice, it could be proposed that narcissism assessment tools should be distributed amongst adolescents to highlight any individuals who may be at risk of committing such acts in the future.

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Chapter 1 - Introduction

1.1 Conceptualisations and Dimensions of Narcissism

Narcissism, as a sub-clinical personality construct, has attracted the attention of social and personality psychologists worldwide. Studies have found a significant rise in mean narcissism scores from the Narcissistic Personality Inventory (NPI; Raskin & Terry, 1988) between 1979 to present (Twenge, Konrath, Foster, Campbell, & Bushman, 2008a, 2008b), and as a result, research on sub-clinical narcissism has significantly increased dramatically in recent years (Delic, Novak, Kovacic, & Avsec, 2011).

Narcissism first migrated into mainstream literature when the Narcissistic Personality Inventory (NPI; Raskin & Terry, 1988) was published to represent a subclinical way to measure narcissism which was consistent with the clinical definition (Campbell & Foster, 2007) within the Diagnostic and Statistical Manual of Mental Disorders (3rd ed. [DSM–III]; American Psychiatric Association, 1980). With narcissism being just one personality construct of many, Paulhus and Williams (2002) clarified the literature on personalities that were deemed aversive but still within the normal range of functioning. They found three variables to be most prominent: Machiavellianism, narcissism, and psychopathy, and coined these distinct yet overlapping trio of variables the ‘Dark Triad’. Research began to thrive on the ‘Dark Triad’ whilst the three constructs also continued to be researched separately. More recently, research has argued that the traits of Narcissistic Personality Disorder, as described in the DSM–IV–TR (American Psychiatric Association, 2000), can be viewed as maladaptive variants of the facets within the Five Factor Model of general personality (e.g. Clark, 2007). This history surrounding narcissism firmly places it in

a personality type category, however, not all agree, as this introduction will demonstrate.

It is generally agreed that narcissism is associated with low empathy (Watson & Morris, 1991), exploitativeness (Campbell, Bush, Brunell, & Shelton, 2005), aggressive reactions to threat (Bushman & Baumeister, 1998), high need for positive regard and admiration (Morf & Rhodewalt, 2001), and an inflated, often distorted, view of ability (Campbell, Bosson, Goheen, Lakey, & Kernis, 2007). As such, high levels of narcissism can lead to harmful interpersonal and societal consequences including crime and violence (e.g. Craig, 2003; Flournoy & Wilson, 1991; Hepper, Hart, Meek, Cisek, & Sedikides, 2014). These well-known facts about narcissism demonstrate that it is a very important dimension of personality to study.

It is rather problematic to simply state what narcissism, or Narcissistic Personality Disorder (NPD) actually is. This is due to the numerous inconsistencies and ongoing debates regarding the definition and conceptualisation of narcissism across clinical psychology, psychiatry, and social/personality psychology research. Pincus et al., (2009) presented a contemporary definition, attempting to capture and integrate the discrepancies across the literature and proposed narcissism be conceptualised as:

“One’s capacity to maintain a relatively positive self-image through a variety of self-, affect-, and field-regulatory processes and it underlies individuals’ needs for validation and affirmation, as well as the motivation to overtly and covertly seek out self-enhancement experiences from the social environment” (p. 365).

Within the clinical literature, it has been acknowledged that there are two distinct dimensions of narcissism; grandiose and vulnerability (e.g. Cain, Pincus, &

Ansell, 2008). Grandiose narcissism is characterised by explicit immodesty, self-promotional, self-enhancing, and entitled behaviour, combining the traits of disagreeableness and agentic aspects of extraversion. In contrast, vulnerable narcissism is characterised by being self-absorbed, entitled, distrustful of others, and overtly presenting psychological distress and delicateness (Miller, Lynam, Hyatt & Campbell, 2017). However, despite the long-standing acknowledgment of these dimensions in the clinical field, they have not been empirically studied until much more recently and even so, experts still generally believe that the grandiose dimension of narcissism is still more central than vulnerable features (Ackerman, Hands, Donnellan, Hopwood, & Witt, 2017). As such, the majority of research to date has focussed on the grandiosity component, particularly within social/personality psychology literature.

Another distinction that has been proposed is between normal and pathological narcissism. Pincus and Lukowitsky (2010) propose that narcissism has normal and pathological presentations, with normal narcissism reflecting adaptive and pathological narcissism reflecting maladaptive personality traits. In their view, the literature on narcissism from social-personality psychologists is only relevant to normal (adaptive) narcissism and does not capture pathological, or sub-clinical narcissism. However, Miller et al., (2017) disagree and suggest that the distinction between normal and pathological narcissism instead reflects different emphases on the grandiose and vulnerable dimensions. They propose that either grandiose or vulnerable narcissism can be considered pathological as it is based on how extreme, inflexible, and functionally impairing, the traits associated with that dimension of narcissism are. As such, grandiose or vulnerable narcissism can be adaptive or maladaptive depending on the severity of the traits (Miller et al., 2017).

The view that social personality literature can only examine normal or adaptive narcissism (Pincus & Lukowitsky, 2010; Rosenthal & Hooley, 2010) still remains. This is due to the typical assessment measure used within the literature, the NPI (Raskin & Terry, 1988), constantly critiqued as being unable to assess pathological narcissism (Pincus & Lukowitsky, 2009; Pincus & Lukowitsky, 2010; Rosenthal & Hooley, 2010). The main reason Pincus and Lukowitsky (2010) suggest this is due to the relative independence of scores on the NPI and their own developed measure, the Pathological Narcissism Inventory ($r = .13$; Pincus et al., 2009). However, it has been suggested that the NPI is significantly correlated with symptoms of NPD (Miller, Gaughan, Pryor, Kamen, & Campbell, 2009), assesses traits that reflect expert ratings of typical examples of grandiose narcissism and NPD (Miller et al., 2014, Miller, Widiger, & Campbell, 2014), and correlates with the Diagnostic and Statistical Manual of Mental Disorders (DSM-5; American Psychiatric Association, 2013) section III PD traits, which are far from considered normal or adaptive (Miller, Gentile, & Campbell, 2013; Miller, Gentile, Wilson, & Campbell, 2013; Miller et al., 2014, a, b; Wright et al., 2013). As such, it is reasonable to believe that both grandiose and vulnerable narcissism can be normal (adaptive) or pathological when it is severe and causes impairment (maladaptive) (Miller et al., 2017). Further, much social personality literature focussing on grandiose narcissism confirms this by finding numerous links to maladaptive outcomes (discussed in section 1.3).

The four research articles that follow are published as part of empirical investigations, and each adopt the most common conceptualisation of narcissism and assess both adaptive and maladaptive dimensions of grandiose narcissism. This was decided due to most of the research involving non-clinical samples, had focussed on this dimension, and, as mentioned above, that much of this literature found numerous

links to maladaptive outcomes (discussed in section 1.3). As such, for the purposes of this thesis, the same focus was chosen in order to make comparisons to existing literature.

1.2 Measuring Narcissism

Due to the numerous inconsistencies and ongoing debates regarding the definition and conceptualisation of narcissism, a large number of distinct measures exist and, unsurprisingly, there is also controversy over which measure is most appropriate. However, as mentioned above, the majority of research in social and personality psychology uses various forms of the NPI (Raskin & Terry, 1988) to assess the construct (Cain, Pincus, & Ansell, 2008).

The original NPI (Raskin & Hall, 1979) was developed from the description of NPD within the DSM III (American Psychiatric Association, 1980). Raskin and Hall (1979) devised 223 items to cover all attributes related to NPD and used a forced-choice response style in which participants had to choose between the narcissistic and the non-narcissistic response for each item. Later, they refined this large number of items down to the 40-item forced choice measure (Raskin & Hall, 1988), which is reliable, well validated, and widely used. It is also protected from social desirability influences due to its forced-choice format, and therefore, is not correlated with measures of social desirability (Watson, Grisham, Trotter, & Biderman, 1984).

Many studies have used the total score from the NPI in which the 40 items are summed together and higher scores suggest higher levels of narcissism (e.g. Twenge et al, 2008). However, many researchers have examined the underlying structure of the NPI and found that there are multiple dimensions of narcissism embedded within it. For example, Emmons (1984, 1987) proposed four dimensions, Raskin and Terry

(1988) identified seven, and others suggest just two (Kubarych, Deary, & Austin, 2004). Many studies have examined two of the four dimensions proposed by Emmons (1984, 1987), Leadership/Authority and Entitlement/Exploitativeness (e.g. Brown, Budzek, & Tamborski, 2009; Rhodewalt & Morf, 1995; Watson & Biderman, 1993; Watson & Morris, 1991).

Leadership/Authority is known as the adaptive aspect of the narcissistic personality and individuals who score higher on this dimension have greater self-awareness (Watson & Biderman, 1993), higher self-esteem (Brown et al, 2009), and a lower actual-ideal self-discrepancy (Raskin & Terry, 1988). In addition, Leadership/Authority is related to lower levels of social anxiety, personal distress, neuroticism, and depression (e.g. Emmons, 1984; Watson & Biderman, 1993).

In contrast, individuals who score higher on the Entitlement/Exploitativeness dimension are more likely to be self-conscious (Watson & Biderman, 1993), have higher actual-ideal discrepancies (Rhodewalt & Morf, 1995), lower self-esteem (Brown et al., 2009) and present lower levels of empathy and social desirability (Watson & Morris, 1991). In addition, higher levels of Entitlement/Exploitativeness have also been associated with unpredictable moods, neuroticism, and higher scores on the Narcissistic Personality Disorder Scale (Emmons 1987). With this collection of traits, this dimension is often referred to as maladaptive narcissism (Ackerman et al, 2011; Barry, Frick, & Killian, 2003).

More recently, Ackerman et al., (2011) proposed a three-factor solution for the NPI in an attempt to end continuous debate. Over four studies, they found evidence for a three-factor model consisting of Leadership/Authority, Grandiose Exhibitionism, and Entitlement/Exploitativeness. The Leadership/Authority dimension was generally linked to adaptive characteristics such as drive/goal persistence and global self-

esteem. Grandiose Exhibitionism also included mainly adaptive characteristics such as drive/goal persistence and extraversion. The Entitlement/Exploitativeness dimension, in concurrence with the literature, was linked with maladaptive characteristics or as Ackerman et al., (2011, p.83) state, “socially toxic”.

Overall, these findings suggest that the NPI captures both adaptive and maladaptive aspects of the narcissistic personality, and as such, simply using the total score from the NPI would be difficult to interpret. It is recommended that researchers examine facets of the NPI in accordance to a factor solution and to date, Ackerman et al’s., (2011) model is the most reliable as it has been tested over numerous studies and incorporates both maladaptive and adaptive narcissism, as per the original NPI. As a result, the four research articles that follow all utilise this factor solution of the NPI in order to reliably distinguish between the adaptive and maladaptive facets of grandiose narcissism.

1.3 Narcissism and Aggression

Over the years, narcissism has been linked to a large number of offensive behaviours, ranging from minor to very severe. Firstly, it is well known that narcissists are prone to break social-etiquette norms. For example, it has been found that narcissists display lower generosity and higher retaliation in everyday life (Bockler, Sharifi, Kanske, & Singer, 2017), are more likely to use offensive language to attract attention (Adams, Florell, Burton, & Hart, 2014; DeWall, Buffardi, Bonser & Campbell, 2011), and engage in truancy (Holtzman, Vazire, & Mehl, 2010). In addition, narcissists are more likely to believe everyday transgressing is acceptable (Daddis & Brunell, 2015) and report more willingness to engage in behaviour that could trouble others (Wallace, Scheiner, & Grotzinger, 2016).

Aggressive behaviour has frequently been linked with narcissism, and numerous theories, or explanations, exist as to why that is. One of the most accepted and empirically supported explanations as to why narcissists may engage in aggressive behaviour was proposed by Baumeister, Smart, and Boden (1996). They suggested that due to narcissists having very high self-esteem, if they experience an ego threat, i.e. the positive views of themselves are questioned, challenged, mocked etc, they may respond aggressively, particularly against the source of the threat. They referred to this as ‘threatened egotism’ and soon after empirically demonstrated this through two experimental studies (Bushman & Baumeister, 1998). Since then, numerous research has also found that narcissism is related to direct aggression following negative feedback or insult (Barry, Chaplin, & Grafeman, 2006; Bushman et al., 2009; Jones & Paulhus, 2010; Twenge & Campbell, 2003; Vaillancourt, 2013). In addition, many studies have also found that narcissism is linked to displaced aggression following an ego threat (Martinez, Zeichner, Reidy, & Miller, 2008; Twenge & Campbell, 2003).

One particular type of negative feedback which can provoke narcissists to react aggressively is social exclusion. Much research has focussed on this, for example, Twenge and Campbell (2003) conducted four independent studies and consistently found that narcissists were more aggressive after experiencing social exclusion. Further, this aggression was more likely towards the individual who excluded them, however, would also aggress against an innocent third party who was not involved. Similarly, Twenge and Baumeister (2005) looked at this effect across more than 20 experiments and distinguished between narcissists and non-narcissists. They found that socially excluded individuals were more aggressive (sometimes toward innocent targets), were less willing to help or cooperate, engaged in self-

defeating behaviours such as risk-taking and procrastination, and performed poorly on analytical reasoning tasks. Individuals who scored highly on narcissism demonstrated a much higher level of aggression after the social exclusion, thus providing one reason as to why narcissists behave aggressively.

In contrast, some have found that narcissism is linked to unprovoked aggression (Barry et al., 2007; Centifanti, Kimonis, Frick, & Aucoin, 2013; Reidy, Foster, & Zeichner, 2010; Washburn, McMahon, King, Reinecke, & Silver, 2004) whilst others suggest that narcissism can be related to both provoked and unprovoked aggression (Barry et al., 2007). One study in particular found a relationship between narcissism and displaced aggression towards an innocent victim not responsible for any provocation (Martinez et al., 2008). As a result, this suggests that 'threatened egotism' is not necessarily always the reason for narcissists to behave aggressively and instead, narcissism can be associated with provoked and unprovoked aggression, and the aggression can also be directed to a completely uninvolved individual, i.e. a stranger.

Another, more recently suggested explanation as to why narcissists are prone to aggression is due to low levels of self-control. Narcissism has been linked with low self-control (Vaughn, Delisi, Beaver, Wright, & Howard, 2007, Vazire & Funder, 2006) and independently both narcissism and low self-control have been associated with a range of anti-social behaviours (Casillas & Clark, 2002; Moffitt, 1993; Pratt & Cullen, 2000; Vazire & Funder, 2006). However, Larson, Vaughn, Salas-Wright, and Delisi (2015) argued that despite these findings, no research had actually investigated whether low self-control is a predictor or explanation of anti-social behaviour in narcissists. Using a nationally representative sample, they found that individuals with high levels of narcissistic traits and deficiencies in self-control were much more likely

to engage in violence. As such, despite a large amount of research focusing on ‘threatened egotism’, there may be other explanations as to why narcissists are more likely to behave aggressively.

1.4 Narcissism and Sexual Aggression

A particular type of aggressive behaviour which narcissism has been linked to is sexual aggression. Baumeister, Catanese, and Wallace (2002) suggested two main explanations as to why narcissists may engage in sexualised aggression. Firstly, they are more likely to perceive an individual they desire as being interested and sexually available to them, when in reality this is not the case. As such, they believe that sexual contact is what the individual wants and aggression is an incidental means by which the end is achieved. Narcissists’ recollections of sexual activity would most likely concern consenting encounters with little or no memory of resistance and rejection (Scully, 1990). Secondly, aggression towards an individual is more likely to be sexualised if narcissists perceive themselves to have been offended as a result of their sexual advances being rejected (Baumeister et al., 2002). By reacting in a sexually aggressive way, the narcissist intends to sexually humiliate the individual just as they perceive themselves of feeling when that individual rejected them.

Baumeister et al. (2002) develop this idea in their ‘narcissistic reactance theory of rape’, which generally suggests that narcissists will desire sex more when it is refused. This creates an increased risk of sexualised aggression as the narcissist pursues sex, with the immediate goal of rape being to affirm their entitlement to have sex with any individual they choose. Intercourse is desired as a symbolic act of claiming another individual rather than sexual satisfaction, and as such, the primary goal is egotistical rather than physical. Bushman, Bonacci, Baumeister, and van Dijk

(2003) empirically tested this theory over three studies investigating how narcissism and reactance contribute to rape. With the use of questionnaires, the first study found that narcissism positively correlated with rape myth acceptance and negatively with empathy toward rape victims. In the second study, narcissists responded more favourably towards some scenes shown on a videotape depicting rape. They rated these scenes as more entertaining, enjoyable, and more sexually arousing. The third study found that narcissistic males reacted more negatively and punitive towards a female confederate who refused sexual stimulation the participant expected. As such, all three studies provided support for the 'narcissistic reactance theory of rape' and also for the theory that narcissistic males feel less empathy towards females who may have been a victim of sexual coercion or aggression (Bushman et al., 2003).

More recently, this theory has been further supported in the literature. Mouliso and Calhoun (2012) found that those who scored higher on narcissism were twice as likely to report sexual aggression relative to the overall sample. In addition, narcissism and psychopathy distinguished perpetrators from non-perpetrators. Similarly, Jones and Olderbak (2014) reported that across two individual studies, Dark Triad personality traits (psychopathy, Machiavellianism, and narcissism) predicted sexual coaxing across a number of scenarios. More specifically, narcissism was more strongly related to coaxing when rejected by an expensive date (i.e. a person they have spent a lot of money on that evening, for example, expensive meal, drinks etc). Further, Widman and McNulty (2010) found that narcissism predicted different types of sexual aggression such as unwanted sexual contact, sexual coercion, and attempted or completed rape.

1.5 Narcissism Facets and Sexual Aggression

A number of studies have found relationships between specific facets of narcissism and types of aggression, particularly sexual aggression. A common finding is that this type of behaviour is related to the maladaptive, or entitlement/exploitative, facet of narcissism. For example, Ryan, Weikel and Sprechini (2008) explored how this facet was related to courtship violence. When analysing data from couples on their own, and their partner's aggression, they found that for females, this facet of narcissism was significantly correlated with sexual coercion in both partners. For males, it was correlated with perpetrated physical assault and their partner's sexual coercion. Ryan et al. (2008) suggest that this may be a defensive reaction in which the males over estimate their partner's sexual coercion in order to justify their own coercive behaviour.

More recently, Russell and King (2017) found that maladaptive narcissistic and psychopathic traits, as measured with the Personality Inventory for DSM-5 (PID-5; Krueger, Derringer, Markon, Watson, & Skodol, 2012), positively correlated with self-reported sexual violence including rape using a male community sample. In addition, Mouilso and Calhoun (2015) investigated self-reported sexual assault perpetration in a sample of college males. They found that only the maladaptive facets of the NPI (Raskin & Terry, 1988) correlated with actual perpetration. Similarly, using a sample of offenders arrested for intimate partner violence, Simmons, Lehmann, Cobb, and Fowler (2005) found that females were more likely to demonstrate pathological narcissistic personality traits or have actual personality disorders compared with male offenders. This study is one of very few which have included a female sample when investigating the role of narcissism and offending behaviours including aggression and sexual aggression.

1.6 Narcissism in Women

It is clear that the majority of research on narcissism and offending behaviour has focused on aggression, sexual aggression, interpersonal violence, and domestic violence. However, despite most studies using sub-clinical populations, they mainly concentrated on male samples (Bushman et al., 2003; Jones & Olderbak, 2014; Mouliso & Calhoun, 2012, 2015; Russell & King, 2017; Widman & McNulty, 2010) and when females were included, they were studied alongside their partners as dating couples (Ryan et al., 2008) or within an offending sample (Simmons et al., 2005).

In terms of studies that specifically focus on female populations, a thorough search of the literature found very little. Warren et al. (2002) found a strong relationship between NPD and violent behaviour, including murder, among incarcerated females. However, this study did not identify the specific types of crimes narcissistic females tend to commit due to using broad classifications of offending. In addition, it only focussed on NPD, not sub-clinical narcissism. More recently, Pechorro, Maroco, Ray, Goncalves, and Nunes (2017) tested a new shorter measure of narcissism, the NPI-13, on a sample of female adolescents from school and forensic settings. They found a significant association between narcissism and crime severity, conduct disorder, violent crimes, and alcohol and drug use. However, this study only focussed on youths, and as above, focussed, in part, on a forensic sample.

Clearly, there is a distinct lack of research on female narcissism and criminal behaviour. In particular, it seems that no studies have been undertaken looking at female narcissism and lower-level offending in a sub-clinical, non-forensic, population. By focussing on a sample such as this, there is potential to obtain valuable data from individuals who may have committed particular crimes but have not been apprehended.

1.7 Thesis Aims

This thesis aims to contribute to the very little we know about narcissism in females, specifically in relation to attitudes towards violence, and actual offending behaviours. It also aims to provide an alternative way to investigate levels of narcissism within a laboratory setting by introducing a new, and more effective, tool to elicit feelings of social exclusion in participants.

In order to fulfil these aims, a number of studies were conducted:

Chapter 2 – A questionnaire-based study investigating the relationship between narcissism and sexually coercive behaviour using both male and female participants from a non-forensic population (Blinkhorn et al., 2015). This study was conducted due to the large body of literature focussing on sexually coercive behaviour, particularly in narcissistic males. As such, the aim of this study was to investigate how the relationship between narcissism and sexually coercive behaviour differed between males and females.

Chapter 3 – A questionnaire-based study investigating the relationship between narcissism and attitudes towards violence using both male and female participants from a non-forensic population (Blinkhorn, Lyons, & Almond, 2016). Despite much research evidencing that narcissism is related to a number of offending behaviours, mainly in males, little is known on the subject of narcissists and their attitudes. The aim of the study was to investigate whether narcissists have more accepting attitudes towards violent behaviours and if there were differences between males and females.

Chapter 4 – A questionnaire-based study investigating the relationship between narcissism and a range of offending behaviours using both male and female participants from a non-forensic population (Blinkhorn, Lyons, & Almond, 2018). This study asked participants about their past offending behaviour and also the frequency of it. Thus, rather than asking questions regarding hypothetical scenarios, this study directly asked participants whether they had engaged in such behaviours. The aim was to investigate whether narcissism in a non-forensic sample was related to offending behaviours, as the majority of research focusing on actual offences has mainly used forensic samples. In addition, as per the previous studies, the differences between males and females was explored due to the general lack of research on gender differences and narcissism.

Chapter 5 – Includes two lab experiments. The first one involves the creation and validation of a virtual game that can be used to provoke social exclusion in people who score highly on narcissistic traits. The second experiment was a lab-based version of the study in chapter 2 using a female, non-forensic sample. This involved using the created game alongside questionnaires to investigate whether feelings of social exclusion provoked even higher acceptance towards violence in narcissists (Blinkhorn, Lyons, & Almond, under review).

Chapter 2 - The ultimate femme fatale? Narcissism predicts serious and aggressive sexually coercive behaviour in females

2.1 Introduction to Manuscript

The first study titled, 'The ultimate femme fatale? Narcissism predicts serious and aggressive sexually coercive behaviour in females' (Blinkhorn et al, 2015) is the first part of a large exploratory online questionnaire study. Despite studies finding relationships between narcissism and persistent sexual persuasion (Jones & Olderbak, 2014), coercion and aggression (Mouilso & Calhoun, 2012; Ryan et al, 2008; Widman & McNulty, 2010), rape conducive beliefs (Bushman et al, 2003) and domestic violence (Simmons et al, 2005), they mainly concentrated on male samples. As such, it was apparent that further research was required to include females. This study aimed to explore the relationships between narcissism and sexually coercive behaviour, and also whether there were any gender differences.

2.2 Introduction

Previous research has suggested that personality plays an important role in sexually coercive tactics (DeGue & DiLillo, 2005; Khan, & Cordwell, 2011; Kosson, Kelly, & White, 1997; Muñoz, Voller & Long, 2010). Narcissism is a potentially relevant personality construct, likely to be responsible for increased sexual coercion due to being characterised by self-serving cognitive distortions, and the excessive need for admiration (Baumeister et al, 2002). Indeed, studies have found a relationship between narcissism and persistent sexual persuasion (Jones & Olderbak, 2014), coercion and aggression (Mouilso & Calhoun, 2012; Ryan et al, 2008; Widman & McNulty, 2010), rape conducive beliefs (Bushman et al, 2003) and

domestic violence (Simmons et al, 2005). However, despite most studies using sub-clinical populations, they mainly concentrated on male samples (Bushman et al., 2003; Jones & Olderbak, 2014; Mouilso & Calhoun, 2012; Widman & McNulty, 2010), and when females were included, they were studied alongside their partners as young dating couples (Ryan et al., 2008), or within an offending sample (Simmons et al., 2005). This study investigated narcissism and sexually coercive tactics in both males and females in a sub-clinical non-offending population.

Research has found that both sexes appear to engage in similar types of sexually coercive behaviour at similar rates (Schatzel-Murphy, Harris, Knight, & Milburn, 2009). Females, as well as males, employ a number of sexually coercive tactics including the seduction of unwilling partners, manipulation, use of alcohol and/or drugs, and physical force (e.g., Anderson & Aymami, 1993; Fiebert & Tucci, 1998; Struckman-Johnson, 1988). Interestingly, Struckman-Johnson, Struckman-Johnson, and Anderson (2003) conducted a questionnaire study using 656 college students and found that females stated they employed more seductive tactics such as taking their clothes off (41.1%), and manipulative tactics such as threatening blackmail (3.6%) and to harm themselves (5.5%). Males lied to their partners more (42.4%), and also employed more physically coercive tactics such as restraining (22.4%), persistently kissing and touching (70.8%), and taking advantage of their partners when intoxicated (42.1%). Due to these differences, it is clear that any research into sexually coercive tactics should include sex differences, as well as the full range of coercive strategies from minor to severe.

As described in Chapter 1, a prominent theory concerning narcissism and sexual coercion is ‘the narcissistic reactance theory of rape and sexual coercion’ (Baumeister et al., 2002), however, this theory, and subsequent empirical tests,

focussed on male samples. The present study aimed to find similar relationships between narcissism, sexual coercion, and reactance, in both males and females.

It is possible that the lack of research on narcissism and sexual coercion in females is due to consistent findings of higher levels of narcissism (e.g., Grijalva et al., 2015; Paulhus & Williams, 2002; Tschanz, Morf, & Turner, 1998) and interpersonal violence (Conradi & Geffner, 2012) in males. There is a notable lack of research investigating female sexual coercion against males (Schatzel-Murphy et al., 2009), despite over 200 studies finding gender symmetry (Straus, 2012). Schatzel-Murphy et al. (2009) found that both sexes engaged in similar sexually coercive behaviour, however, the attitudes and desire behind that behaviour varied significantly. Male sexual coercion was predicted by deriving sexual pleasure from dominating someone in a sexual situation (sexual dominance) and a willingness to engage in uncommitted sexual relations or casual sex (sociosexuality). In contrast, female sexual coercion was predicted by a difficulty in controlling sexual urges (sexual compulsivity). In addition, prior sexual abuse directly predicted sexual coercion in females (Schatzel-Murphy et al., 2009). In order to contribute to the very little we know so far, the present study investigated narcissism and sexually coercive tactics varying in severity in both males and females.

In addition to focussing on both sexes, this study also used a measure of sexual coercion that might be more relevant to narcissism. Previous studies that utilised a self-report measure for sexual coercion focussed on the tactics an individual uses to gain sexual access to another (Mouilso & Calhoun, 2012; Ryan et al., 2008; Widman & McNulty, 2010). However, narcissists are more likely to react to disappointment with shame and rage, which can ultimately lead to aggression and a desire for revenge (Kohut, 1978), or what Baumeister et al. (2002) termed 'reactance'.

Therefore, this study investigated narcissism and ‘Postrefusal Sexual Persistence’ (PSP), the act of pursuing sexual contact with a person after he or she has refused the initial advance (Struckman-Johnson et al., 2003). The PSP scale was used which assessed sexually coercive tactics on four levels increasing in severity from emotional manipulation to physical force (Struckman-Johnson et al., 2003). Due to previous research finding differences between the types of sexually coercive tactics males and females use (Struckman-Johnson et al., 2003) a measure incorporating a range of tactics varying in severity is crucial for studying narcissism and sexual coercion.

Not only may sexually coercive strategies depend on overall narcissism in both sexes, but it also may depend on the sub-facet of narcissism. According to Ackerman et al. (2011), the Narcissistic Personality Inventory (NPI) consists of maladaptive, socially toxic components (i.e., Entitlement/Exploitativeness) and adaptive components (Leadership/Authority). They also identified a third component, Grandiose/Exhibitionism, which was not particularly maladaptive or adaptive in nature. For the present study, we considered the Entitlement/Exploitativeness subscale to be maladaptive and the Leadership/Authority and Grandiose/Exhibitionism subscales relatively adaptive.

The expression of narcissism can vary with gender (Philipson, 1985; Richman & Flaherty, 1990). Males may be more likely to express overt/ grandiose narcissism whereas females may use more indirect and discreet ways to fulfil their narcissistic goals (Morf & Rhodewalt, 2001). In terms of which gender expresses maladaptive traits (Entitlement/ Exploitativeness) the most, findings are conflicting. Richman and Flaherty (1990) found that males scored higher on narcissistic traits reflecting Entitlement/Exploitativeness and a lack of empathy. Further, Tschanz et al. (1998) found that Entitlement/Exploitativeness traits were less correlated with other

narcissistic traits in females more than males, thus suggesting these maladaptive traits are less central to narcissism in females. However, a couple of studies have shown that when these maladaptive traits are investigated with gender and other types of behaviours, specifically sexual coercion and domestic violence, the findings differ. Ryan et al. (2008) found that in young dating couples, females with higher levels of Entitlement/Exploitativeness were more sexually coercive towards their current partner than males. In addition, Simmons et al. (2005) investigated the personalities of males and females who had been arrested for domestic violence and found higher rates of clinically elevated narcissistic personality traits in females. These findings demonstrate that much more research is required to investigate the relationship between sub-facets of narcissism and sexually coercive behaviour, particularly with distinct male and female samples from a sub-clinical population.

To date, no studies have investigated the relationship between narcissism and PSP with a male or female sample and therefore, we present this brief report. We predict that sexually coercive behaviour will be present amongst both sexes, and the higher the narcissism, the higher the number of sexually coercive tactics an individual will report to have used. In addition, we predict our results will provide additional empirical support for 'The Narcissistic Reactance Theory of Rape and Sexual Coercion' (Baumeister et al., 2002), and demonstrate that the theory can also be applied to narcissistic females rather than just males. In relation to the subscales of the NPI, we predict that Leadership/Authority and Grandiose/Exhibitionism will not be related to severe sexual tactics, whereas the more maladaptive traits, Entitlement/Exploitativeness, will. Based on previous research, we can predict that females who score more highly on Entitlement/ Exploitativeness will have carried out more severe sexual tactics.

2.3 Method

Participants

The sample consisted of 329 participants ($M = 26.61$, $SD = 12.43$, 21% males), predominantly British ($n = 225$) and American ($n = 78$). The strategy was to collect as many participants as possible. As such, an online survey was advertised at a University in North-West England to undergraduate students ($n = 186$) who could participate in exchange for course. In addition, the survey was advertised to the wider community via the authors' social networks ($n = 143$), and also on psychology research participation websites.

Materials

Narcissism was measured using the 40-item forced-choice Narcissistic Personality Inventory (NPI; Raskin & Terry, 1988). Participants chose between two statements, one of which indicated high narcissism (e.g., I have a natural talent for influencing people) and one indicated low narcissism (e.g., I am not good at influencing people). A score of 1 was given for each high narcissism choice (0 for a low narcissism choice) and these points were totalled to create an overall narcissism score (range = 1–36) (Cronbach's $\alpha = .89$). In the present paper we use the three-factor structure (Ackerman et al., 2011) where the NPI is split into Leadership/Authority ($\alpha = .80$), Grandiose Exhibitionism ($\alpha = .78$), and Entitlement/Exploitativeness ($\alpha = .55$). The low level of internal consistency for Entitlement/Exploitativeness is not unusual for this particular subscale (Ackerman et al., 2011) and is consistent with other research (e.g. Cater, Zeigler-Hill, & Vonk, 2011; Jones & Figueredo, 2013; Vonk, Zeigler-Hill, Mayhew, & Mercer, 2013).

Sexually coercive tactics were measured by the Postrefusal Sexual Persistence scale (PSP; Struckman-Johnson et al., 2003), a 19-item self-report questionnaire. The PSP is separated into subcategories that assess coercive tactics in increasing severity: 1) sexual arousal (e.g., persistently kissing and touching), 2) emotional manipulation and deception (e.g., questioning their sexuality), 3) exploitation of the intoxicated (e.g., purposefully getting the target drunk), and 4) physical force, threats, and harm (e.g., using physical harm). Participants were asked to indicate “yes” or “no” as to whether they had used each tactic after their partner had indicated ‘no’ to their sexual advance. A score of 1 was given for each answer indicating “yes” (0 for an answer indicating “no”) and these points were totalled to create an overall score (range = 0–15) ($\alpha = .92$) and four individual subscale scores; sexual arousal ($\alpha = .76$), emotional manipulation and deception ($\alpha = .79$), exploitation of the intoxicated ($\alpha = .82$), and physical force, threats, and harm ($\alpha = .91$).

Procedure

The first page of the on-line survey contained the participant information sheet and other relevant ethical information. Participants completed a selection of demographic questions and then continued to complete the NPI, PSP, and other questionnaires not reported in this paper. After completing the survey, participants were thanked, and presented with a full debrief.

2.4 Results

Table 1 presents the descriptive statistics and sex differences for all measures. Males scored significantly higher than females on total narcissism, total PSP, and all subscales.

Table 1

Descriptive statistics and sex differences for all measures.

	Mean (<i>SD</i>)			<i>t</i>
	Overall <i>n</i> = 329	Males <i>n</i> = 70	Females <i>n</i> = 259	
Total NPI	11.71 (7.56)	15.56 (9.20)	10.67 (6.70)	4.15***
Leadership	3.79 (2.91)	5.20 (3.10)	3.41 (2.75)	4.39***
Grandiose Exhibitionism	2.43 (2.43)	3.14 (2.56)	2.25 (2.36)	2.77**
Entitlement/Exploitativeness	0.76 (1.02)	1.18 (1.16)	0.64 (0.95)	3.62***
Total PSP	0.55 (1.99)	1.76 (3.59)	0.23 (1.07)	3.53**
Sexual arousal	0.18 (0.59)	0.49 (0.93)	0.10 (0.42)	3.38**
Emotional manipulation	0.23 (0.85)	0.74 (1.49)	0.10 (0.48)	3.58**
Exploiting intoxicated	0.05 (0.29)	0.21 (0.59)	0.01 (0.09)	2.94**
Physical force, threat, harm	0.09 (0.59)	0.31 (1.10)	0.02 (0.32)	2.12*

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

In Table 2, we report the associations between the NPI and PSP subscales. In males, Leadership/Authority and Grandiose Exhibitionism was positively associated with each of the four PSP subscales and Entitlement/Exploitativeness was positively associated with Emotional Manipulation. In females, Leadership/Authority was positively associated with Emotional Manipulation and Exploitation of the Intoxicated, Grandiose Exhibitionism was positively associated with Exploitation of the Intoxicated, and Entitlement/Exploitativeness was positively associated with all four PSP subscales.

When shared variance between the narcissism subscales was controlled in multiple regressions (assumptions of normality, linearity, homoscedasticity, and absence of multicollinearity were checked), in males, the Leadership/Authority facet of the NPI predicted Emotional Manipulation and Exploitation of the Intoxicated; and Grandiose Exhibitionism predicted Sexual Arousal. In females, the Entitlement/Exploitativeness facet of the NPI predicted all four subscales of the PSP;

Sexual Arousal, Emotional Manipulation, Exploitation of the Intoxicated, and Physical Force, Threats, and Harm.

Table 2

Zero-order correlations and standardised regression coefficients for NPI and PSP subscales.

	Leadership/ Authority <i>r</i> (β)	Grandiose Exhibitionism <i>r</i> (β)	Entitlement/ Exploitativeness <i>r</i> (β)	Total NPI <i>r</i> (β)
Men (<i>n</i> =70)				
1. Sexual arousal	.27* (.04)	.40** (.36*)	.20 (.05)	.39**
2. Emotional manipulation	.48*** (.35*)	.39** (.19)	.31* (.03)	.55**
3. Exploitation of intoxicated	.39** (.31*)	.36** (.20)	.20 (-.06)	.47**
4. Physical force, threats, harm	.34** (.27)	.26* (.10)	.23 (.04)	.40**
Women (<i>n</i> =259)				
1. Sexual arousal	.10 (.00)	.10 (.03)	.27*** (.26***)	.16**
2. Emotional manipulation	.13* (.07)	.07 (-.03)	.25*** (.23***)	.18**
3. Exploitation of intoxicated	.16** (.04)	.16* (.06)	.31*** (.28***)	.25**
4. Physical force, threats, harm	.09 (.03)	.05 (-.03)	.22*** (.22***)	.13*

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

The Fisher $r-z$ transformation was used in order to test the significance of the sex differences within Table 2. We found that three of the correlations were significantly different in males and females. The correlations between Leadership/Authority and Emotional Manipulation ($z = 2.86$, $p < .01$), Grandiose Exhibitionism and Sexual Arousal ($z = 2.36$, $p < .05$), and Grandiose Exhibitionism and Emotional Manipulation ($z = 2.49$, $p < .05$) were significantly stronger in males than in females. No other correlations were significantly different.

2.5 Discussion

In the present study we investigated narcissism and sexually coercive tactics varying in severity in both males and females. Males scored higher than females on

total narcissism, total PSP, and all subscales. In males, the Leadership/Authority facet of the NPI predicted Emotional Manipulation and Exploitation of the Intoxicated; and Grandiose Exhibitionism predicted Sexual Arousal. In females, the Entitlement/Exploitativeness facet of the NPI predicted all four subscales of the PSP. In addition, the correlations between Leadership/Authority and Emotional Manipulation, Grandiose Exhibitionism and Sexual Arousal, and Grandiose Exhibitionism and Emotional Manipulation were significantly stronger in males than in females. No other correlations were significantly different.

Our results are congruent with Grijalva et al.'s (2015) meta-analytic review in that males scored significantly higher on total narcissism and each of the subscales. However, as with the work of Ryan et al. (2008) and Simmons et al. (2005), when narcissism was investigated in relation to another behaviour, particularly sexually coercive tactics, maladaptive narcissism was a stronger predictor in females. All types of sexually coercive behaviours were localised to the Entitlement/ Exploitativeness subscale in females, whereas in males, the Leadership/ Authority subscale related to Emotional Manipulation and Exploitation of the Intoxicated, and Grandiose/Exhibitionism linked to the Sexual Arousal subscale. In addition, when empirically testing these sex variances, no significant differences were found in relation to the Entitlement/Exploitativeness subscale and all types of sexually coercive behaviours. This suggests that despite males scoring higher than females on total narcissism, total PSP, and all subscales, the relationship between maladaptive narcissism and sexually coercive behaviour in females is just as strong as it is for males.

The results indicate that sexual coercion in males relates to more socially desirable aspects of narcissism, whereas in females, these strategies are associated

with socially toxic components of the construct. In evolutionary terms, males can enhance their reproductive success by promiscuous mating, something that is characteristic of males high in narcissism (Jonason, Li, Webster, & Schmitt, 2009). The Leadership/ Authority aspect of narcissism is related to low empathy, for instance (Jonason, Lyons, Bethell, & Ross, 2013), which could be part of a package facilitating a promiscuous mating strategy in males (see also Holtzman & Strube, 2011). According to Morf and Rhodewalt (2001), males may be more likely to express overt/grandiose narcissism whereas females may use more indirect and discreet ways to fulfil their narcissistic goals. Our results compliment this view as the aspects of narcissism which relate to male sexual coercion (Leadership/Authority and Grandiose/Exhibitionism) are clearly more overt/grandiose in nature. In contrast, the aspect of narcissism that relates to female sexual coercion (Entitlement/Exploitativeness) involves more manipulative traits and is associated with higher levels of Machiavellianism (Ackerman et al., 2011).

As expected, our results both compliment and provide additional empirical support for 'the narcissistic reactance theory of rape and sexual coercion' (Baumeister et al., 2002), which proposes that sexual coercion in males may stem from a combination of narcissistic tendencies and reactance. We found that, when rejected from a sexual advance, narcissistic females are just as likely to react with PSP tactics as males are. Therefore, this extends Baumeister et al.'s (2002) theory by evidencing its relevance for both sexes.

The present study is not without its limitations. First, even though our sample was composed of university students and community members, a clear strength of the study, we had an imbalanced ratio of males to females. However, as the focus of the study was on females, this became an advantage. Second, as with all self-report

methods, it is never a guarantee that participants are fully honest in their answers. However, due to the complete anonymity of the survey guaranteed by the on-line environment, our results may actually be less susceptible to socially desirable responding (e.g., Kreuter, Presser, & Tourangeau, 2008; Link & Mokdad, 2005).

Narcissism has been conceptualised in many distinct ways throughout existing literature and this diversity can cause confusion as to which characteristics should be included in scales designed to measure narcissism (Ackerman et al., 2011). Pincus and Lukowitsky (2010) believe there are two distinct forms of narcissism; normal and pathological, and that the NPI (Raskin & Terry, 1988) only measures normal narcissism. They identified two ways in which pathological narcissism can be expressed; grandiosity and vulnerability, and created the Pathological Narcissism Inventory (PNI; Pincus et al., 2009) as a way to measure both facets. However, as mentioned above, Ackerman et al.'s (2011) three-factor structure of the NPI contains both adaptive/normal and maladaptive/pathological elements, and therefore, it is considered a robust, multidimensional, approach to measure narcissism. Nevertheless, future research should investigate whether pathological narcissism, using the PNI (Pincus et al., 2009), is related to sexually coercive behaviour and specific PSP tactics, in both males and females. If the NPI (Raskin & Terry, 1988) is indeed an inferior measure for pathological narcissism, then one would expect to find stronger and more significant results using the PNI (Pincus et al., 2009), particularly in females.

Future research should also investigate PSP using a more domain specific measure of narcissism such as the Sexual Narcissism Scale (SNS; Widman & McNulty, 2010). The SNS captures the extent to which four components of narcissism (entitlement, exploitation, low empathy, inflated sense of skill) are

activated in sexual domains. According to some, sexual narcissism more precisely predicts which components of narcissism are activated in the sexual domain (Widman & McNulty, 2010). It would be interesting to see whether similar results are found when investigating PSP using this alternative measure. In addition, conducting interviews with individuals who score highly on narcissism and PSP would potentially uncover underlying motivations of sexual coercion and the reasons why some behave this way when refused from a sexual advance. Finally, due to the novel nature of this research, it is recommended that follow up studies be undertaken to ensure that these findings are replicable.

In summary, our findings complement those of previous research: that narcissism is related to persistent sexual persuasion (Jones & Olderbak, 2014), coercion and aggression (Mouilso & Calhoun, 2012; Widman & McNulty, 2010) in males. However, narcissistic females are just as likely to engage in serious and aggressive sexually coercive behaviour, thus suggesting that both sexes should always be included in any future research conducted on narcissism. These new findings contribute to the little literature on narcissism and sexual coercion in women, and suggest that narcissism may capture the idea of a more sinister form of femme fatale, one that becomes dangerous when refused from something she wants.

2.6 Conclusion to Manuscript

This study aimed to explore the relationships between narcissism and sexually coercive behaviour, and also whether there were any gender differences. The results indicated that narcissistic females are just as likely as males to engage in sexually coercive behaviour. However, sexual coercion in males seemed to relate more to

socially desirable aspects of narcissism, whereas in females, these strategies were associated with socially toxic components of the construct.

These findings fuelled curiosity regarding whether narcissists' attitudes towards such behaviours are in line with the numerous offending behaviours they have been known to engage in. In addition, it was interesting to see whether the same findings would be found in terms of how the constructs of narcissism related to males and females differently.

Chapter 3 - Drop the bad attitude! Narcissism predicts acceptance of violent behaviour

3.1 Introduction to Manuscript

This study titled, ‘Drop the bad attitude! Narcissism predicts acceptance of violent behaviour’ (Blinkhorn et al., 2016) is the second part of the large exploratory online questionnaire study. This study aimed to explore the relationships between narcissism and attitudes towards violence as the majority of research on narcissism had focussed on actual behaviours. Therefore, it was interesting to investigate whether there were any differences between the findings from study 1, which looked at actual sexual tactics participants would be willing to use in a situation, and attitudes towards particular acts, some of which being sexually orientated. Again, by having both males and females involved, potential gender differences could be explored.

3.2 Introduction

Narcissism, as a sub-clinical personality construct, has attracted the attention of social and personality psychologists worldwide. Studies have found a significant rise in mean narcissism scores from the Narcissistic Personality Inventory (NPI; Raskin & Terry, 1988) between 1979 to present (Twenge, Konrath, Foster, Campbell, & Bushman, 2008a, 2008b), and as a result, research on sub-clinical narcissism has significantly increased in recent years (Delic, Novak, Kovacic, & Avsec, 2011). It is generally agreed that narcissism is associated with low empathy (Watson & Morris, 1991), exploitativeness (Campbell, Bush, Brunell, & Shelton, 2005), aggressive reactions to threat (Bushman & Baumeister, 1998), high need for positive regard and

admiration (Morf & Rhodewalt, 2001), and an inflated, often distorted, view of ability (Campbell, Bosson, Goheen, Lakey, & Kernis, 2007).

Previous research has found that narcissism is related to a number of offending behaviours such as domestic violence (Craig, 2003; Flournoy & Wilson, 1991), sexual coercion and aggression (Blinkhorn et al, 2015; Mouilso & Calhoun, 2012; Widman & McNulty, 2010), and general offending (Hepper, Hart, Meek, Cisek, & Sedikides, 2014). However, no research to date has explored the relationship between narcissism and attitudes towards these types of behaviours. Studies have found a direct relationship between attitudes towards offending behaviours and subsequent offending (e.g. Helmus, Hanson, Babchishin, & Mann, 2013; Nunes, Hermann, & Ratcliffe, 2013). Therefore, due to the pre-existing knowledge that narcissism is linked to a number of offending behaviours, it is important to investigate the attitudes of narcissists and whether they are generally more accepting of these types of behaviours. It may be that, due to narcissists having distorted self-perceptions (Grijalva & Zhang, 2015), narcissism may not relate to more accepting attitudes towards violence, just the actual offending behaviour itself. The present study aims to elucidate whether or not narcissism is related to more accepting attitudes towards violence in a sub-clinical non-offending population in four domains; attitudes towards war, penal code violence, corporal punishment, and intimate violence (Anderson, Benjamin, Wood, & Bonacci, 2006).

To date, we know very little on the subject of narcissists and their attitudes. However, we do know that narcissism is related to a number of specific behaviours, which in turn, could be linked to attitudes. For example, aggression (Maples et al., 2010; Reidy, Foster, & Zeichner, 2010) and authoritarianism (Carnahan & McFarland, 2007) have been linked to narcissism, which suggests that individuals

high in narcissism may have more accepting attitudes towards particular phenomena such as war, the violent punishment of criminals, and the use of physical force to dominate others. Further, narcissism has been found to be related to social dominance orientation (Hodson, Hogg, & MacInnis, 2009), which is associated with the acceptance of corporal punishment, specifically against children (Hess, Gray, & Nunez, 2012). It may be that narcissists are more accepting of aggressive behaviours such as corporal punishments, and also more likely to inflict them on others.

Indeed, some research has demonstrated that narcissism is related to child physical abuse (Collins, 2004; Crouch et al., 2015; Wiehe, 2003). For example, Wiehe (2003) found statistically significant differences between abusive and non-abusive parents on the subscales of the Narcissistic Personality Inventory (NPI; Raskin & Terry, 1988). The abusive parents scored significantly lower on the authority and superiority subscales, and significantly higher on the exhibitionism and entitlement subscales. Overall, the findings demonstrated that the abusive parents had lower self-confidence, a greater lack of impulse control, and were generally more narcissistic than their non-abusive counterparts. It is unclear as to whether accepting attitudes towards the corporal punishment of children precedes this type of abusive behaviour by narcissistic individuals, something we aim to investigate in this study.

Narcissism has also been linked to intimate partner violence (Blinkhorn et al., 2015; Buck, Leenaars, Emmelkamp, & van Marle, 2014; Meier, 2005; Simmons et al, 2005). For example, Simmons et al. (2005) investigated the personalities of individuals who had been arrested for domestic violence and found higher rates of clinically elevated narcissistic personality traits. Similarly, Meier (2005) found that perpetrators of intimate partner violence scored higher on narcissism than non-perpetrators. These findings not only indicate that narcissism is related to intimate

partner violence, but may also suggest that narcissists have more accepting attitudes towards intimate partner violence. This study aims to elucidate whether narcissists' attitudes are indeed related to their behaviours.

In addition to investigating the relationship between narcissism and attitudes towards violence, the different sub-facets of narcissism will also be examined. According to Ackerman et al. (2011), the NPI (Raskin & Terry, 1988) consists of maladaptive, or socially toxic, (i.e., Entitlement/Exploitativeness) and adaptive (Leadership/Authority) components. Further, they identified a third component, Grandiose/ Exhibitionism, which was not particularly maladaptive or adaptive in nature. For the present study, we considered the Entitlement/ Exploitativeness subscale to be maladaptive and the Leadership/ Authority and Grandiose/Exhibitionism subscales relatively adaptive. No previous studies have looked at how these sub-facets of narcissism are related to a wide range of violence-related attitudes; we intend to address this in the present study. Moreover, as there are sex differences in how and by whom these sub-facets are manifested in violent behaviours (see Blinkhorn et al., 2015; Ryan, Weikel, & Sprechini, 2008), we will also make a comparison between the sexes.

To conclude, no previous research has investigated the relationship between narcissism and attitudes to a wide range of violent acts using the three-factor structure of the NPI (Raskin & Terry, 1988) developed by Ackerman et al. (2011). We predict that the higher the narcissism, the more positive, and accepting, attitudes an individual will have towards all aspects of violence.

3.3 Method

Participants

The sample consisted of 329 participants ($M = 26.61$, $SD = 12.43$, 21% males), predominantly British ($n = 225$) and American ($n = 78$). The strategy was to collect as many participants as possible. As such, an online survey was advertised at a University in North-West England to undergraduate students ($n = 186$) who could participate in exchange for course. In addition, the survey was advertised to the wider community via the authors' social networks ($n = 143$), and also on psychology research participation websites.

Materials

As in the previous study (Chapter 2), narcissism was measured using the 40-item forced-choice Narcissistic Personality Inventory (NPI; Raskin & Terry, 1988), points were totalled to create an overall narcissism score (range = 1–36) (Cronbach's $\alpha = .89$), and the three-factor structure (Ackerman et al., 2011) was used where the NPI is split into Leadership/ Authority ($\alpha = .80$), Grandiose Exhibitionism ($\alpha = .78$), and Entitlement/Exploitativeness ($\alpha = .55$).

Attitudes towards violence were measured by the Velicer Attitudes Towards Violence Scale (VATVS; Anderson et al., 2006), a 39-item self-report questionnaire. The VATVS is separated into subcategories that assess attitudes towards different types of violence: 1) war (e.g., killing of civilians should be accepted as an unavoidable part of war), 2) corporal punishment of children (e.g., a child's habitual disobedience should be punished physically), 3) penal code violence (e.g., capital punishment is often necessary), and 4) intimate violence (e.g., it is all right for a

partner to slap the other's face if challenged). Participants were asked to indicate the extent to which they agreed with each statement using a 5-point Likert scale (1 = Strongly Disagree; 5 = Strongly Agree). Responses were totalled to create an overall score (range = 39–164) ($\alpha = .94$) and four individual subscale scores; war ($\alpha = .90$), corporal punishment of children ($\alpha = .92$), penal code violence ($\alpha = .84$), and intimate violence ($\alpha = .95$).

Procedure

The first page of the on-line survey contained the participant information sheet and other relevant ethical information. Participants completed a selection of demographic questions and then continued to complete the NPI, VATVS, and other questionnaires not reported in this paper. After completing the survey, participants were thanked, and presented with a full debrief.

3.4 Results

Table 1 presents the descriptive statistics and sex differences for all measures. Males scored significantly higher than females on total narcissism, total attitudes towards violence, and all subscales apart from one, Penal Code Violence.

Table 1

Descriptive statistics and sex differences for all measures.

	Mean (SD)			<i>t</i>
	Overall <i>n</i> = 329	Males <i>n</i> = 70	Females <i>n</i> = 259	
Total NPI	11.71 (7.56)	15.56 (9.20)	10.67 (6.70)	4.15***
Leadership	3.79 (2.91)	5.20 (3.10)	3.41 (2.75)	4.39***
Grandiose Exhibitionism	2.43 (2.43)	3.14 (2.56)	2.25 (2.36)	2.77**
Entitlement/Exploitativeness	0.76 (1.02)	1.18 (1.16)	0.64 (0.95)	3.62***
Total VATVS	79.00 (21.34)	92.90 (25.87)	75.21 (18.26)	5.37***
War	31.50 (8.87)	37.27 (9.30)	29.94 (8.08)	6.51***
Corporal Punishment of Children	14.32 (6.34)	18.20 (7.55)	13.27 (5.54)	5.10***
Penal Code Violence	16.90 (5.64)	16.63 (6.29)	16.70 (5.45)	1.22
Intimate Violence	16.25 (6.90)	19.79 (10.33)	15.30 (5.27)	3.51**

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

In Table 2, we report the associations between the NPI and VATVS subscales. In males, Leadership/Authority was positively associated with War, Corporal Punishment of Children, and Intimate Violence. Grandiose Exhibitionism was positively associated with Intimate Violence and Entitlement/Exploitativeness with War, Corporal Punishment of Children, and Intimate Violence. In females, Leadership/Authority and Entitlement/Exploitativeness were positively associated with each of the four VATVS subscales.

When shared variance between the narcissism subscales was controlled in multiple regressions (assumptions of normality, linearity, homoscedasticity, and absence of multicollinearity were checked), in males, the Leadership/Authority facet of the NPI predicted violent attitudes towards War and Corporal Punishment of Children. In females, the Leadership/Authority facet of the NPI predicted all four subscales of the VATVS. Grandiose Exhibitionism predicted less violent attitudes towards War, and the Entitlement/ Exploitativeness facet of the NPI predicted violent attitudes towards War, Penal Code Violence, and Intimate Violence.

Table 2

Zero-order correlations and standardised regression coefficients for NPI and VATVS subscales.

	Leadership/ Authority <i>r</i> (β)	Grandiose Exhibitionism <i>r</i> (β)	Entitlement/ Exploitativeness <i>r</i> (β)	Total NPI <i>r</i>
Men (<i>n</i> =70)				
1. War	.42*** (.36*)	.17 (-.11)	.38** (.21)	.43***
2. Corporal Punishment of Children	.39** (.36*)	.15 (-.10)	.32** (.14)	.39**
3. Penal Code Violence	.22 (.28)	.02 (-.15)	.15 (.04)	.18
4. Intimate Violence	.39** (.16)	.33** (.15)	.40** (.25)	.52***
Women (<i>n</i> =259)				
1. War	.34*** (.36***)	.08 (-.13*)	.21** (.13*)	.28***
2. Corporal Punishment of Children	.28*** (.28***)	.09 (-.08)	.20** (.13)	.26***
3. Penal Code Violence	.22*** (.20**)	.04 (-.12)	.24*** (.20**)	.23***
4. Intimate Violence	.25*** (.23**)	.07 (-.10)	.23*** (.18**)	.21**

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

The Fisher r - z transformation was used in order to test the significance of the sex differences within Table 2. Just one significant difference was found. The correlation between Grandiose Exhibitionism and Intimate Violence ($z = 1.99$, $p < .05$), was significantly different in males than in females. All other correlations were similar in both men and women.

3.5 Discussion

In the present study, we investigated narcissism and attitudes towards violence in males and females from a sub-clinical non-offending population. Males scored higher than females on total narcissism, total VATVS, and all subscales apart from Penal Code Violence. In males, the Leadership/Authority facet of the NPI predicted violent attitudes towards War and Corporal Punishment of Children. In females, the Leadership/Authority facet of the NPI predicted all four subscales of the VATVS. Grandiose Exhibitionism predicted less violent attitudes towards War, and the

Entitlement/Exploitativeness facet of the NPI predicted violent attitudes towards War, Penal Code Violence, and Intimate Violence. In addition, the correlation between Grandiose Exhibitionism and Intimate Violence was significantly stronger in males than in females. No other correlations were significantly different.

Our results are congruent with others (Grijalva et al., 2015; Paulhus & Williams, 2002; Tschanz, Morf, & Turner, 1998) in that males scored significantly higher on total narcissism and each of the subscales. However, as with the work of Simmons et al. (2005), Ryan et al. (2008), and Blinkhorn et al. (2015), when narcissism was investigated in relation to another behaviour, or specific attitudes in this case, maladaptive narcissism was a stronger predictor in females. Only the Leadership/Authority subscale was related to attitudes concerning War and Corporal Punishment of Children in males. However, in females, not only was the Leadership/Authority subscale related to all four attitudes towards violence, but the Entitlement/Exploitativeness subscale was also related to attitudes towards War, Penal Code Violence, and Intimate Violence. In addition, when empirically testing these sex variances, no significant differences were found in relation to the Entitlement/Exploitativeness subscale and all attitudes. This suggests that despite males scoring higher than females on total narcissism, total VATVS, and all subscales apart from one (Penal Code Violence), the relationship between maladaptive narcissism and attitudes towards violence in females is just as strong as it is for males.

Narcissism has been linked to aggression (Maples et al., 2010; Reidy et al., 2010), authoritarianism (Carnahan & McFarland, 2007), and social dominance orientation (Hodson et al., 2009); with the latter also being associated with the acceptance of corporal punishment, specifically against children (Hess et al., 2012). According to Benjamin (2006), three of the VATVS subscales (War, Penal Code

Violence, Corporal Punishment) are significantly correlated with attitudes regarding authoritarian aggression, and as such, these dimensions of the VATVS may be used as valid indices of attitudes towards authoritarian aggression. As our results generally demonstrate that individuals who scored higher on narcissism had more accepting attitudes towards violence, this suggests that narcissism may also predicts more accepting attitudes towards authoritarian aggression in both males and females.

Our results suggest that total narcissism, and more specifically, the Leadership/Authority subscale, relates to more accepting attitudes towards the corporal punishment of children. This finding compliments previous research that has demonstrated a link between narcissism and child physical abuse (Collins, 2004; Crouch et al., 2015; Wiehe, 2003). It has been found that the Leadership/Authority facets of narcissism are linked to recollections of having a cold mother (e.g. Jonason, Lyons, & Bethell, 2014); therefore, it may be that children who are parented this way subsequently develop more accepting attitudes towards the corporal punishment of children. Indeed, Kernberg's (1975) psychodynamic perspective on the development of narcissism suggests that narcissistic children will have parents who are cold, strict, and controlling. This combination of parenting has been labelled 'authoritarian' by other theorists (e.g., Maccoby & Martin, 1983). It is possible that individuals who have high levels of Leadership/Authority, have been subjected to authoritarian parenting, which in turn, could be related to more accepting attitudes towards corporal punishment.

Interestingly, unlike the work of Wiehe (2003) who found abusive parents scored significantly higher on the Exhibitionism and Entitlement subscales of narcissism, we did not find a similar relationship between the Entitlement/Exploitativeness subscale and attitudes towards the corporal punishment

of children. This suggests that, despite studies finding direct relationships between attitudes towards offending behaviours and subsequent offending (e.g. Helmus et al., 2013; Nunes et al., 2013), there may be differences in how narcissism relates to specific attitudes towards behaviour, and actually carrying out the behaviour. Our results suggest that these differences can be found within the different sub-facets of narcissism, and therefore, this finding requires future investigation.

With regard to females specifically, we found that those with higher levels of Entitlement/Exploitativeness and Leadership/Authority were more accepting of intimate violence. This compliments the work of Simmons et al. (2005), Ryan et al. (2008), and Blinkhorn et al. (2015), who found that females with higher levels of Entitlement/ Exploitativeness were more sexually coercive, and sometimes, domestically violent, towards their current partner. This finding may provide the reason as to why narcissistic females are more likely to engage in sexual coercion and domestic violence; simply because they think it is acceptable. These results emphasise how important the link between attitude and actual behaviour is, particularly in relation to offending behaviours.

This study has the same limitations as discussed in the previous (Chapter 2) concerning the imbalanced ratio of males to females and issues around socially desirable responding with self-report methods. Further, as also discussed within the Chapter 2, future research should explore the use of alternative measures of narcissism such as the Pathological Narcissism Inventory (PNI; Pincus et al., 2009).

In summary, our findings suggest that narcissism is associated with more positive, and accepting, attitudes towards violence. In addition, males who score more highly on Leadership/Authority and females who score more highly on Entitlement/Exploitativeness and Leadership/Authority, are more likely to have

accepting attitudes towards violence. These findings contribute to the little we know about narcissists and their attitudes and emphasise how important the link between attitude and actual behaviour is, particularly in relation to offending behaviours.

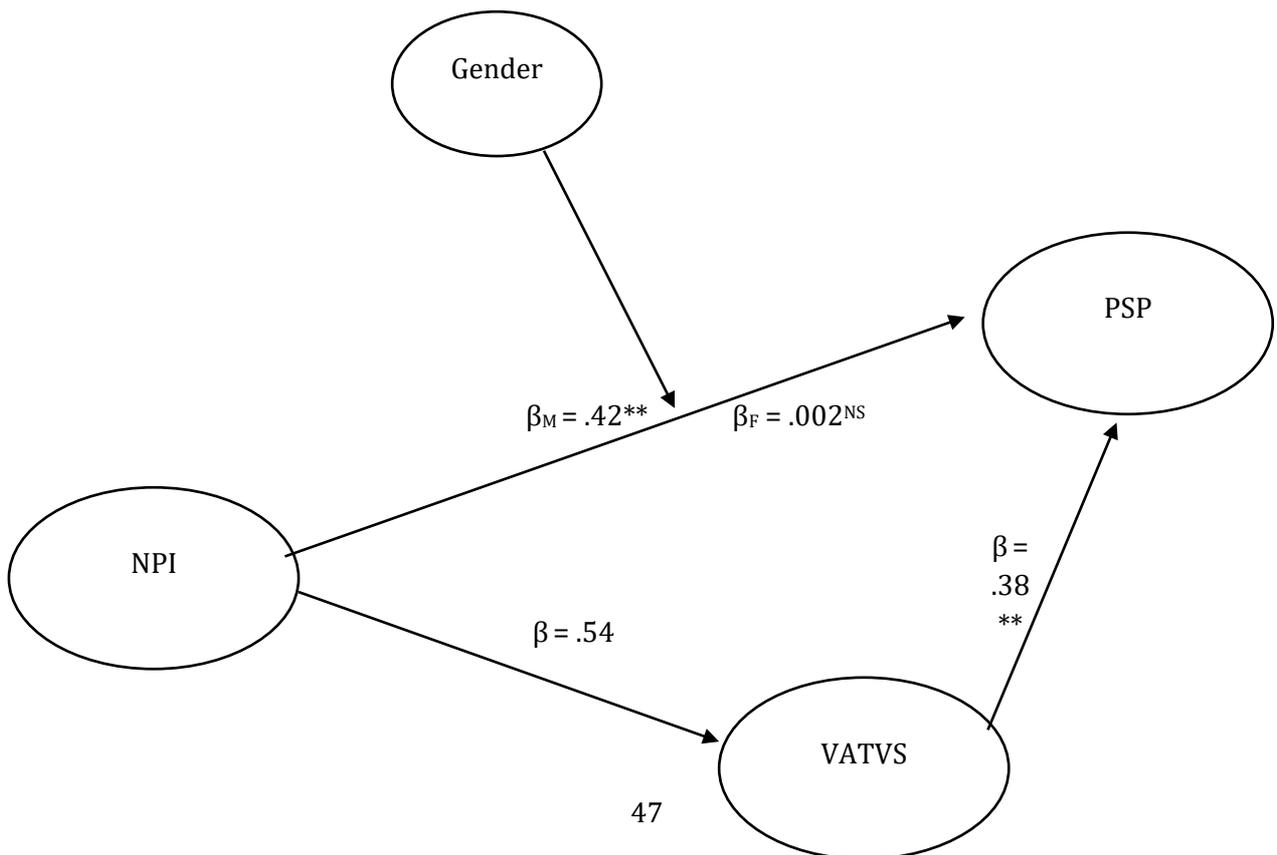
3.6 Conclusion to Manuscript

This study aimed to explore the relationships between narcissism and attitudes towards violence, and also whether there were any gender differences. The results indicated that narcissism is associated with more positive, and accepting, attitudes towards violence. More specifically regarding gender, males who scored highly on the more socially desirable aspects of narcissism were more likely to have accepting attitudes towards violence. However, in contrast, females who scored more highly on both the socially desirable and socially toxic components of narcissism, were more likely to have accepting attitudes towards violence.

These findings were interesting as a similar pattern to study 1 emerged regarding females and the socially toxic components of narcissism. To create a clearer picture in terms of what the results of this study found, we tested the structural path linking the NPI, VATVS, and PSP, as well as the model invariance related to gender. For the whole sample, the fit indexes (i.e., CFI = .957 > .9, TLI = .936 > .9, $\chi^2/df = 2.984 < 3$, RMSEA = .078 < .08, and SRMR = .056 < .08) showed that the hypothesized model had a good fit with the data (Mahmoud & Grigoriou, 2017; Bentler, 1990; Byrne, 2010; Hu & Bentler, 1995; Jöreskog & Sörbom, 2015; MacCallum, Browne, & Sugawara, 1996) and showed that the NPI positively predicted both VATVS ($\beta = .54$, $P < .0001$) and PSP ($\beta = .17$, $P < .05$). Further, VATVS positively related to PSP ($\beta = .38$, $P < .0001$).

We used the bootstrapping approach to test for mediation. VATVS partially mediated the relationship between NPI and PSP ($B = +.044$, $p = .001 < .01$). The indirect (mediated) effect of the NPI on PSP was .044. That is, due to the indirect (mediated) effect of NPI on PSP, when the NPI goes up by 1, PSP goes up by .044. This is in addition to any direct (unmediated) effect that the NPI may have on PSP. For further discussion of direct, indirect and total effects, see Baron and Kenny (1986).

We also conducted an invariance analysis to detect the relationship inequalities amongst the variables that could be attributed to gender. Our statistics found that the model is not invariant between males and females ($X^2 = 165.974$, $df = 22$). The multiple pairwise comparisons showed that the path from the NPI to PSP ($Z = 1.99 > 1.64$) was only significant for males ($\beta_M = .42$, $P < .0001$) and not significant for females ($\beta_F = .002$, $P = .834$). In addition, the VATVS only partially mediated the relationship between the NPI and PSP for males, while fully mediated that relationship for females.



Chapter 4 - Criminal minds: Narcissism predicts offending behaviour in a non-forensic sample

4.1 Introduction to Manuscript

Study 3 titled, 'Criminal minds: Narcissism predicts offending behaviour in a non-forensic sample' (Blinkhorn et al., 2018) was the result of large online questionnaire study, following the results from the previous two studies. These studies suggest that females with high levels of narcissistic traits are just as likely as narcissistic males to have used sexually coercive behaviours when rejected, and also have more accepting attitudes towards violence. Further, a pattern was emerging in terms of the socially toxic construct of narcissism characterising females in relation to sexually coercive behaviour and attitudes towards violence. As such, it was interesting to investigate whether narcissism in both males and females was linked to a range of actual offending behaviours, specifically including minor offences that are very rarely explored in the literature. It was also interesting to identify whether indeed, the same patterns would emerge regarding gender differences and the specific constructs of narcissism.

4.2 Introduction

It has been estimated that approximately two thirds of offenders meet the criteria for at least one Personality Disorder (PD) (Singleton et al., 1998) and that a number of these have Narcissistic Personality Disorder (NPD) (Wulach, 1988). Within offender populations in England, NPD has been diagnosed in 6% of women, 7% of men, and 8% of men on remand (Singleton et al, 1998). However, a higher

prevalence of 25% of men has been detected in a sample of English mentally disordered offenders (Blackburn et al., 2003). Despite the prevalence of PD's and NPD in offenders, very little research has been undertaken examining whether trait narcissism within a community sample is also related to offending.

The majority of research on narcissism and anti-social behaviour has focussed on men and behaviours of a sexual nature. This may be due to the consistent findings demonstrating higher levels of narcissism (e.g., Grijalva et al., 2015; Paulhus & Williams, 2002; Tschanz, Morf, & Turner, 1998) and inter-personal violence (Conradi & Geffner, 2012) in men. Further, according to 'the narcissistic reactance theory of rape and sexual coercion' (Baumeister, Catanese & Wallace, 2002), sexual coercion may stem from a combination of narcissistic tendencies and reactance to refusal of sex, especially in men (Baumeister et al., 2002; Bushman & van Dijk, 2003). Probably due to these factors, there is a serious lack of focus on narcissism and sexual coercion in women (although see Blinkhorn et al., 2015).

To date, the few studies that have investigated narcissism and offending in both sexes have included different facets of narcissism (Blinkhorn, et al, 2015, 2016; Ryan, Weikel, & Sprechini, 2008; Simmons et al, 2005). According to Ackerman et al. (2011), the Narcissistic Personality Inventory (NPI; Raskin & Terry, 1988) consists of maladaptive, or socially toxic, (i.e., Entitlement/Exploitativeness) and adaptive (Leadership/Authority) components. Further, they identified a third component, Grandiose/ Exhibitionism, which was not particularly maladaptive or adaptive in nature. Most research has found that maladaptive facets of narcissism have an association with elevated sexual coercion and violence in women (Blinkhorn et al., 2015; Ryan et al., 2008; Simmons et al., 2005), and that more adaptive facets of narcissism predict sexual coercion in men (Blinkhorn et al., 2015). As such, it is clear

that more research is needed to investigate whether there is a relationship between narcissism and other types of offending behaviours in women, other than those of a sexual nature.

As per previous research, this study utilised Ackerman et al.'s. (2011) three-factor structure of the NPI (Raskin & Terry, 1988) and considered the Entitlement/Exploitativeness subscale to be maladaptive, and the Leadership/Authority and Grandiose/Exhibitionism subscales relatively adaptive. We aim to elucidate whether trait narcissism in a non-clinical population relates to a range of offending behaviours. Further, the different sub-facets of narcissism will be examined in order to explore any potential gender differences.

In summary, no previous research has investigated the relationship between, narcissism and offending behaviour using the three-factor structure of the NPI (Raskin & Terry, 1988) developed by Ackerman et al. (2011). We predict that the higher the narcissism, the higher the levels of offending behaviour an individual will report. More specifically, based on previous findings (Blinkhorn et al., 2015, 2016; Ryan et al., 2008; Simmons et al., 2005), we predict that more relationships between offending behaviour and the Entitlement/Exploitativeness (maladaptive) constructs of narcissism will be found in women.

4.3 Method

Participants

The sample consisted of 632 participants (M age = 24.72, SD = 11.44, 20% men). More than half of the sample was British with their country of residence being the UK (63%). The strategy was to collect as many participants as possible. As such,

an online survey was advertised at a University in the North-West of England to undergraduate students who could participate in exchange for course credit ($n = 414$). In addition, the survey was advertised to the wider community ($n = 218$) via the authors' social networks, and on psychology research participation websites.

Materials

As in the previous studies (Chapter 2 & 3), narcissism was measured using the 40-item forced-choice Narcissistic Personality Inventory (NPI; Raskin & Terry, 1988), points were totalled to create an overall narcissism score (range = 1–36) (Cronbach's $\alpha = .89$), and the three-factor structure (Ackerman et al., 2011) was used where the NPI is split into Leadership/ Authority ($\alpha = .80$), Grandiose Exhibitionism ($\alpha = .78$), and Entitlement/Exploitativeness ($\alpha = .55$).

Offending behaviour was measured by an adapted version of the 33-item self-report Non-Violent and Violent Offending Behaviour Scale (NVOBS; Thornton, Graham-Kevan, & Archer, 2013). The NVOBS is separated into subcategories that assess different types of offending behaviour: 1) general violence (e.g., slapped someone), 2) drugs (e.g., used cannabis), 3) interpersonal violence (e.g., kicked partner), 4) criminal damage (e.g., broke windows of empty building), and 5) theft (e.g., possessed stolen property). We adapted this measure in 3 ways. First, because we did not require detailed information about drug taking behaviours, the four items relating to drugs (ecstasy, cocaine, cannabis, amphetamine) were condensed into two items: class A drugs, and cannabis and amphetamine. Second, we added a question before each original item, which read, “Have you ever...? (offending behaviour)” to which participants had to select “yes” or “no”. Only if they selected “yes” were they directed to the original item from the measure that asked “How often did this happen

in the past year?” This was answered using a 7-point Likert scale (0 = *None*; 1 = *Once*; 2 = *Twice*; 3 = *3-5 times*; 4 = *6-10 times*; 5 = *11-20 times*; 6 = *More than 20 times*). We added this question before the original, as we were interested to know whether participants had ever committed the offending behaviours, not just within the last 12 months. Third, we omitted the question about the number of times the participant has been a victim of inter-personal violence, as we were only interested in the acts committed by the participant him/herself. All responses were totalled to create two sets of scores, overall offending (i.e., whether they have ever committed the crime; $\alpha = .85$; range = 0-29) and current offending (i.e., how many times they had committed the crime in the past year; $\alpha = .86$; range = 0-124). We also calculated five individual subscale scores for both respectively; general violence ($\alpha = .78$; $\alpha = .82$), drugs ($\alpha = .57$; $\alpha = .58$), interpersonal violence ($\alpha = .68$; $\alpha = .83$), criminal damage ($\alpha = .70$; $\alpha = .41$), and theft ($\alpha = .67$; $\alpha = .64$).

Procedure

The first page of the on-line survey contained the participant information sheet and other relevant ethical information. Participants provided informed consent by clicking ‘next’ and beginning the survey. They first completed a selection of demographic questions and then continued to complete the NPI, NVOBS, and other questionnaires not reported in this paper. After completing the survey, participants were thanked, and presented with a full debrief.

4.4 Results

In Table 1 we present the descriptive statistics and sex differences for all measures (all p-values were adjusted using the Holm-Bonferroni method). Men

scored significantly higher than women on total narcissism and the three subscales. In addition, men scored significantly higher on Total Overall Offending, Total General Violence, Total Drugs, Total Criminal Damage, and Total Theft. No significant sex differences were found for any of the current offending behaviours.

Table 1

Descriptive statistics, t-tests, sex differences, and effect sizes for all measures.

	Mean (SD)			Hedges' g	t
	Overall n = 632	Men n = 131	Women n = 501		
Total NPI	11.74 (7.32)	15.39 (8.72)	10.79 (6.59)	0.65	5.64***
Leadership/Authority	3.72 (2.87)	5.11 (3.05)	3.36 (2.71)	0.63	5.96***
Grandiose Exhibitionism	2.46 (2.42)	3.08 (2.53)	2.30 (2.37)	0.32	3.34**
Entitlement/Exploitativeness	0.79 (1.01)	1.23 (1.15)	0.67 (0.93)	0.57	5.10***
Total Overall Offending	5.05 (4.63)	7.27 (5.84)	4.47 (4.07)	0.62	5.17***
Total General Violence	2.66 (2.55)	3.82 (2.95)	2.36 (2.34)	0.59	5.26***
Total Drugs	0.58 (0.82)	0.85 (0.95)	0.50 (0.77)	0.43	3.93***
Total IPV	0.92 (1.38)	0.86 (1.50)	0.93 (1.35)	0.05	-0.50
Total Criminal Damage	0.35 (0.82)	0.75 (1.29)	0.24 (0.60)	0.64	4.37***
Total Theft	0.54 (0.94)	0.98 (1.29)	0.43 (0.79)	0.60	4.64***
Current Overall Offending	5.88 (9.88)	8.16 (15.41)	5.28 (7.72)	0.29	2.07
Current General Violence	2.79 (5.46)	4.26 (8.47)	2.41 (4.28)	0.34	2.43
Current Drugs	1.22 (2.65)	1.49 (2.86)	1.16 (2.59)	0.12	1.21
Current IPV	1.43 (3.87)	1.61 (5.78)	1.38 (3.19)	0.06	0.44
Current Criminal Damage	0.15 (0.60)	0.19 (0.77)	0.14 (0.55)	0.08	0.90
Current Theft	0.28 (1.28)	0.61 (2.16)	0.20 (0.90)	0.32	2.14

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

In Table 2, we report the correlations (all p-values were adjusted using the Holm-Bonferroni method) between the NPI and NVOBS subscales for total offending. In men, Total NPI score, Grandiose Exhibitionism and Entitlement/Exploitativeness were positively associated with Total IPV. In women, Total NPI score and Leadership/Authority was positively related to Total Overall Offending, Total General Violence, Total IPV, and Total Theft. Grandiose

Exhibitionism was positively related to Total Overall Offending, Total General Violence, and Total IPV. Entitlement/Exploitativeness was positively associated with each of the NVOBS subscales apart from Total Criminal Damage.

In order to control the shared variance between the narcissism subscales, we next conducted six simultaneous linear regressions (all p-values were adjusted using the Holm-Bonferroni method) for each sex separately, where the narcissism subscales were entered as predictor variables, and each type of six offending behaviours were the outcome variables (assumptions of normality, linearity, homoscedasticity, and absence of multicollinearity were checked). In men, none of the NPI subscales predicted any type of offending behaviour. In women, the Entitlement/Exploitativeness facet predicted higher levels of Total Overall Offending.

The Fisher $r-z$ transformation was used in order to test the significance of the sex differences within Table 2. Just one significant difference was found. The correlation between Entitlement/Exploitativeness and Total General Violence ($z = -3.15, p < .01$) was significantly stronger in women than in men. All other correlations were similar in both men and women.

Table 2

Zero-order correlations and standardised regression coefficients for NPI subscales and Total Offending Behaviour.

	Leadership/ Authority <i>r</i> (β)	Grandiose Exhibitionism <i>r</i> (β)	Entitlement/ Exploitativeness <i>r</i> (β)	Total NPI <i>r</i>
Men (<i>n</i> =131)				
1. Total Overall Offending	.16 (.13)	.17 (.13)	.04 (-.07)	.20
2. Total General Violence	.07 (.13)	.08 (.09)	-.16 (-.21)	.08
3. Total Drugs	.09 (.08)	.12 (.12)	-.03 (-.11)	.11
4. Total IPV	.18 (-.08)	.31*** (.27)	.29** (.23)	.30**
5. Total Criminal Damage	.19 (.20)	.04 (-.09)	.13 (.07)	.15
6. Total Theft	.13 (.13)	.12 (.08)	.00 (-.09)	.14
Women (<i>n</i> =501)				
1. Total Overall Offending	.21*** (.11)	.22*** (.12)	.22*** (.16**)	.28***
2. Total General Violence	.17*** (.10)	.18*** (.11)	.15** (.09)	.22***
3. Total Drugs	.04 (-.01)	.07 (.03)	.15** (.14)	.10
4. Total IPV	.19*** (.11)	.19*** (.11)	.18*** (.12)	.26***
5. Total Criminal Damage	.07 (.02)	.08 (.04)	.13 (.11)	.10
6. Total Theft	.16*** (.12)	.11 (.02)	.16*** (.12)	.17***

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

In Table 3, we report the correlations (all p -values were adjusted using the Holm-Bonferroni method) between the NPI and NVOBS subscales for current offending. In men, Total NPI score was positively associated with Current Overall Offending, Current General Violence, and Current Criminal Damage. Grandiose Exhibitionism was positively associated with Current Overall Offending and Current IPV. In women, Leadership/Authority and Grandiose Exhibitionism was positively related to Current Overall Offending, Current General Violence, Current IPV, and Current Theft. Entitlement/Exploitativeness was positively associated with each of the NVOBS subscales apart from Current Criminal Damage.

When shared variance between the narcissism subscales was controlled in six multiple regressions (all p -values were adjusted using the Holm-Bonferroni method and assumptions of normality, linearity, homoscedasticity, and absence of multicollinearity were checked), in men, none of the NPI subscales predicted any type

of offending behaviour. In women, the Grandiose Exhibitionism facet predicted higher levels of Current Theft and the Entitlement/Exploitativeness facet predicted higher levels of Current Overall Offending and Current General Violence.

The Fisher $r-z$ transformation was used in order to test the significance of the sex differences within Table 3. Just one significant difference was found. The correlation between the Total NPI score and Current Criminal Damage ($z = 2.87, p < .01$) was significantly stronger in men than in women. All other correlations were similar in both men and women.

Table 3

Zero-order correlations and standardised regression coefficients for NPI subscales and Current Offending Behaviour.

	Leadership/ Authority r (β)	Grandiose Exhibitionism r (β)	Entitlement/ Exploitativeness r (β)	Total NPI r
Men ($n=131$)				
1. Current Overall Offending	.19 (-.03)	.33*** (.28)	.25 (.16)	.33***
2. Current General Violence	.15 (-.03)	.26 (.24)	.19 (.12)	.28**
3. Current Drugs	.18 (.10)	.20 (.15)	.12 (.02)	.24
4. Current IPV	.10 (-.14)	.28** (.29)	.21 (.17)	.21
5. Current Criminal Damage	.26 (.13)	.22 (.09)	.27 (.18)	.34***
6. Current Theft	.21 (.11)	.19 (.09)	.20 (.11)	.27
Women ($n=501$)				
1. Current Overall Offending	.18*** (.06)	.22*** (.13)	.26*** (.20***)	.28***
2. Current General Violence	.16** (.08)	.15** (.06)	.20*** (.16**)	.22***
3. Current Drugs	.03 (-.07)	.13 (.12)	.15** (.14)	.13
4. Current IPV	.15** (.07)	.16*** (.09)	.16*** (.11)	.21***
5. Current Criminal Damage	.05 (.01)	.06 (.03)	.12 (.10)	.07
6. Current Theft	.15** (.04)	.22*** (.16**)	.18*** (.12)	.22***

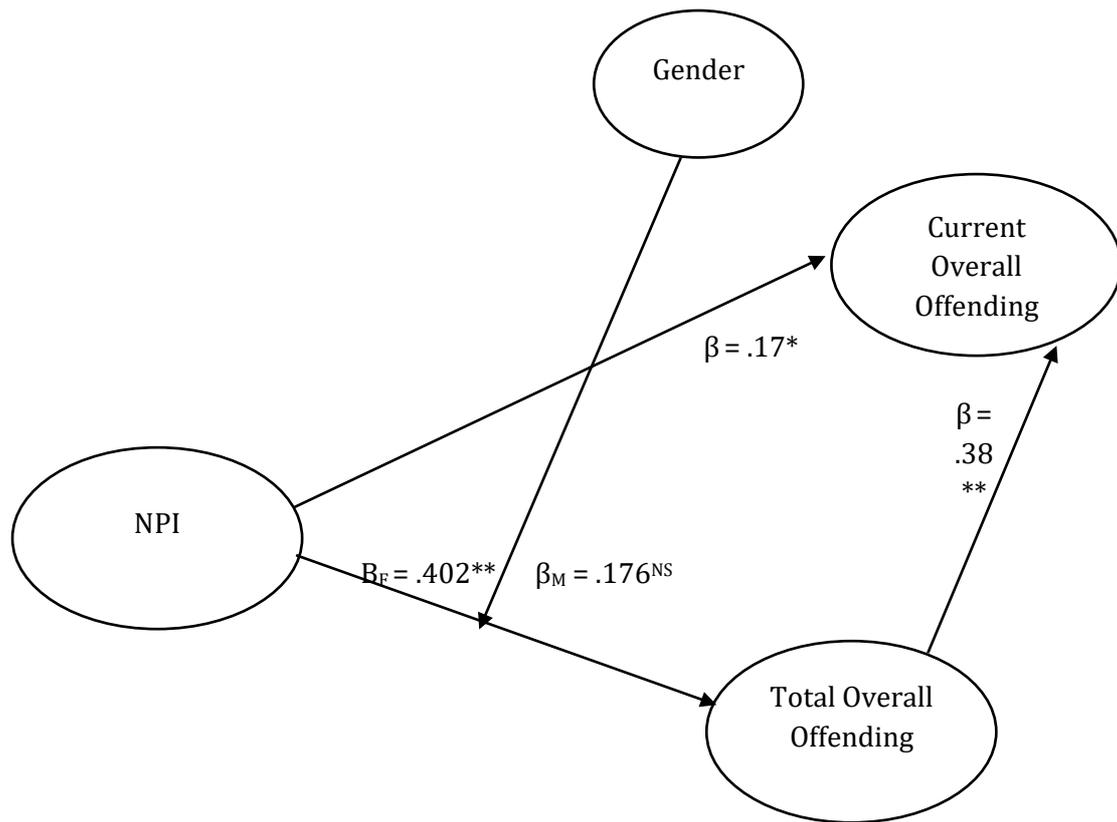
** $p < .01$; *** $p < .001$

In order to create a clearer picture in terms of what the results of this study found, we tested the structural path linking the NPI, Total Overall Offending, and Current Overall Offending, as well as the model invariance related to gender. For the

whole sample, the fit indexes (i.e., CFI = .954 > .9, TLI = .936 > .9, RMSEA = .062 < .08, and SRMR = .059 < .08) showed that the hypothesised model had a good fit with the data (Bentler, 1990; Byrne, 2010; Hu & Bentler, 1995; Jöreskog & Sörbom, 2015; Mahmoud & Grigoriou, 2017; MacCallum, Browne, & Sugawara, 1996), and showed that the NPI positively predicted both Total Overall Offending ($\beta = .35, P < .0001$) and Current Overall Offending ($\beta = .17, P < .05$). Further, and as expected, Total Overall Offending positively related to Current Overall Offending ($\beta = .38, P < .0001$).

We used the bootstrapping approach to test for mediation. Total Overall Offending partially mediated the relationship between NPI and Current Overall Offending ($B = +.014, p = .009 < .01$). The indirect (mediated) effect of the NPI on Current Overall Offending was .014. That is, due to the indirect (mediated) effect of NPI on Current Overall Offending, when the NPI goes up by 1, Current Overall Offending goes up by .014. This is in addition to any direct (unmediated) effect that the NPI may have on Current Overall Offending. For further discussion of direct, indirect, and current effects, see Baron and Kenny (1986).

We also conducted an invariance analysis to detect the relationship inequalities amongst the variables that could be attributed to gender. Our statistics found that the model is not invariant between males and females ($X^2 = 167.262, df = 26$). The multiple pairwise comparisons showed that the path from the NPI to Total Overall Offending ($Z = 2.008 > 1.64$) was only significant for females ($\beta_F = .402, P < .0001$) and not significant for males ($\beta_M = .176, P = .114$). Therefore, the indirect effect of the NPI on Current Overall Offending was only valid for females.



4.5 Discussion

In the present study, we investigated narcissism and a range of offending behaviours in both men and women. Men scored significantly higher than women on total narcissism and the three subscales, Total Overall Offending, Total General Violence, Total Drugs, Total Criminal Damage, and Total Theft. No significant sex differences were found for any of the current offending behaviours. When the narcissism subscales were investigated in relation to offending behaviour, relationships were only found in women, with maladaptive narcissism being the stronger predictor. The Grandiose Exhibitionism facet of the NPI predicted Current Theft and the Entitlement/Exploitativeness subscale predicted Total Overall Offending, Current Overall Offending, and Current General Violence. The correlation between the total NPI score and Current Criminal Damage was significantly stronger in men than in women; however, the correlation between

Entitlement/Exploitativeness and Total General Violence was significantly stronger in women than in men.

Our results are congruent with the work of others that have demonstrated that men consistently score higher on narcissism (Grijalva et al., 2015; Paulhus & Williams, 2002; Tschanz et al., 1998) and offend more than women (Schwartz & Steffensmeier, 2007). However, when narcissism and offending behaviour was investigated together, our results suggest that narcissistic women offend just as much as men, and potentially even more in some respects.

When analysing the sex differences, we found that narcissistic men are more likely to have committed criminal damage offences within the last 12 months than women. However, we also found that women with high maladaptive narcissistic traits are more likely to have committed acts of general violence during their lifespan than men. In addition, invariance analysis and multiple pairwise comparisons showed that the path from the NPI to Total Overall Offending was only significant for females, not for males. Research has shown that the combination of narcissism and threatened egotism results in high levels of aggression towards the source of the threat (e.g. Bushman & Baumeister, 1998). Therefore, it could be that narcissistic women have more delicate egos and as a result, react more violently towards threats than narcissistic men. Indeed, it is generally believed that women are more interpersonally sensitive to men, both as a general trait, and also as a skill in terms of judging the meanings of nonverbal cues (e.g. Briton & Hall, 1995; Spence, Helmreich, & Stapp, 1975). Therefore, more research is needed to investigate whether the violent and overall offending found in this study concerning women, was the result of a threat or social rejection.

Indeed, rejection may be more damaging to women with high maladaptive narcissistic traits. This is not surprising, as the general maladaptive behaviour of women has been researched for quite some time. For example, there is evidence demonstrating that direct physical aggression (Ben-David, 1993), verbal aggression (de Weerth & Kalma, 1992), and the undermining of other's social relationships (Crick & Grotpeter, 1995) are all strategies women use to inflict harm in relationships.

More specifically related to narcissism, Ryan et al (2008) found that women with higher levels of Entitlement/Exploitativeness (maladaptive narcissism) were more sexually coercive towards their partner than men and Simmons et al. (2005) found that women who had been arrested for domestic violence have higher rates of clinically elevated, or maladaptive, narcissistic personality traits than men. Further, Blinkhorn et al. (2015; 2016) found that maladaptive narcissistic traits in women related to sexually coercive tactics and more accepting attitudes towards violence. This suggests that in sub-clinical populations, this form of narcissism may be an important predictor of offending behaviour in women. As such, it could be that when women are highly narcissistic, these maladaptive traits become more prominent and contribute to even more hostile, aggressive, and violent behaviour when rejected or experiencing threat. This would also explain why no such relationships were found in men.

This study has the same limitations as discussed in the previous (Chapter 2 & 3) concerning the imbalanced ratio of males to females and issues around socially desirable responding with self-report methods. Further, as also discussed within Chapter 2, future research should explore the use of alternative measures of narcissism such as the Pathological Narcissism Inventory (PNI; Pincus et al., 2009).

The use of Holm-Bonferroni adjustments could be viewed as allowing false results to be presented, however due to this being an exploratory study, we felt using the full Bonferroni correction would be too conservative. Also, the key findings discussed are based on those relationships with very high significances ($p < .001$).

In summary, our findings complement those of previous research; that narcissism is related to offending behaviour in women (Blinkhorn et al., 2015, Ryan et al., 2008; Simmons et al., 2005; Singleton et al., 1998). Despite previous research demonstrating that narcissism is related to sexual persuasion (Jones & Olderbak, 2014), sexual coercion, and aggression (Mouliso & Calhoun, 2012) in men, no such relationships were found between the subscales of narcissism and offending behaviour in men. Narcissistic women were more likely to have engaged in violent offending behaviour than men, thus suggesting that more research is needed on women and narcissism. These new findings contribute to the little literature on narcissism and offending behaviour in women, suggesting that narcissistic women may be more dangerous than previously thought.

4.6 Conclusion to Manuscript

The aim of this study was to investigate whether narcissism in both males and females was linked to a range of actual offending behaviours, specifically including minor offences. It also aimed to identify whether the same patterns would emerge, as in the previous studies, regarding gender differences and the specific constructs of narcissism. The results found that narcissistic females were more likely to have engaged in violent offending behaviour than males, and that the socially toxic construct of narcissism was the stronger predictor in females, as per the previous studies.

The findings from the three studies presented contributed to the little literature on narcissism in females and also demonstrated the importance of continuing research in this specific area. As a result, other methods of investigating narcissism were explored to uncover whether there were any pre-existing accessible, and effective, tools that could be used in further research.

Chapter 5: The relationship between social exclusion, narcissism, and acceptance of violence: Testing an alternative game to Cyberball

5.1 Introduction to Manuscript

The following two studies, as part of the manuscript titled, 'The relationship between social exclusion, narcissism, and acceptance of violence: Testing an alternative game to Cyberball' (Blinkhorn et al, under review) was the result of taking the findings from the previous online questionnaire-based studies and moving the focus to more controlled lab experiments. This manuscript includes two separate lab experiments; the first tests a new research tool, and the second utilises it in a separate study.

As much of the literature on narcissism suggests that narcissists' behaviour is often the result of having been socially ostracised or excluded in some way, it was immediately apparent that a tool was needed which could prime participants into feeling that way. The most frequently used tool for this is 'Cyberball', an online style ball passing game. However, it has many flaws and could be argued as not very appropriate for those with high levels of narcissistic traits (e.g. McDonald & Donnellan, 2014, failed to provoke feelings of exclusion in participants with high levels of narcissistic traits using Cyberball). As such, a new version was created and tested. Then, the new version was used in a lab version of the study in chapter 2 to investigate whether priming participants to feel socially ostracised would elicit even higher acceptance of attitudes towards violence than what was originally found in chapter 2.

5.2 Introduction

The need to belong is an essential human requirement. People need to belong to social groups and feel accepted by others (Baumeister & Leary, 1995). When this need is not met, and one feels socially ostracised, there can be numerous, sometimes serious, consequences. Social ostracism is defined as “the perception of being ignored by others in one’s presence” (Williams & Sommer, 1997, p. 693) and can destabilise a person’s sense of belonging, control, and self-esteem (Zadro, Williams, & Richardson, 2004). Those who are rejected can be prone to maladaptive behaviours such as self-defeating choices (Twenge, Catanese, & Baumeister, 2002) and reduced reasoning ability (Baumeister, Twenge, & Nuss, 2002). In addition, research has shown that socially ostracised individuals can react in an aggressive manner (Twenge, Baumeister, Tice, & Stucke, 2001). However, there are individual differences in how aggressively people respond to being socially ostracised, and one personality trait that is particularly sensitive to ostracism is narcissism.

It is generally agreed that narcissism, as a sub-clinical personality construct, is associated with low empathy (Watson & Morris, 1991), exploitativeness (Campbell, Bush, Brunell, & Shelton, 2005), aggressive reactions to threat (Bushman & Baumeister, 1998), high need for positive regard and admiration (Morf & Rhodewalt, 2001), and an inflated, often distorted, view of ability (Campbell, Bosson, Goheen, Lakey, & Kernis, 2007). Of particular interest here, Twenge and Campbell (2003) found that narcissism was positively related to angry and aggressive responses following social rejection. The aggressive responses were not just projected toward the rejecters, but also displaced onto others after experiencing rejection. As such, it is not surprising that research has found narcissism to be related to several offending behaviours such as domestic violence (Craig, 2003; Flournoy & Wilson, 1991),

sexual coercion and aggression (Blinkhorn, et al, 2015; Mouilso & Calhoun, 2012; Widman & McNulty, 2010), and general offending (Blinkhorn et al, 2018; Hepper, Hart, Meek, Cisek, & Sedikides, 2014).

When conducting research on social ostracism and narcissism in a laboratory setting, there are few tools readily available to prime participants to feel socially ostracised. The main tool often used in psychological research is the virtual ball-toss computer game, Cyberball (Williams, Cheung, & Choi, 2000). Cyberball is a program that allows researchers to create various interactive scenarios and manipulate the level of ostracism (i.e., having a participant feel included or excluded). In the game, the real participant plays ball with two or more players who are thought to be real and connected through a network as the game is run on a web browser. The other players are in fact computerised confederates, and the researcher can manipulate whether they exclude the participant at any time. The game has numerous changeable features such as the names and number of participants, the pace of the game, and how long the game will last (Williams & Jarvis, 2006). The feeling of social ostracism elicited in participants has been found to relate to lower self-reported levels of belonging, control, self-esteem, and meaningful existence (Zadro et al, 2004). Cyberball has been successfully used in thousands of studies and at least 200 published papers have involved its use (Hartgerink, van Beest, Wicherts, & Williams, 2015).

Although Cyberball is clearly a reliable tool for eliciting feelings of social ostracism, recent studies have criticised its effectiveness. For example, using brain scanning equipment, Weschke and Niedeggen (2016) found that Cyberball did not elicit any specific exclusion response when participants were ignored in the game. More specifically, previous studies using Cyberball have failed to provoke feelings of exclusion in participants with high levels of narcissistic traits (McDonald &

Donnellan, 2014). Further, although narcissism relates to the activation of neural circuits associated with social pain, it is not linked to reports of feeling more upset or more excluded after playing Cyberball in the fMRI scanner (Cascio, Konrath, & Falk, 2014). It is possible that individuals with high levels of narcissistic traits require more direct or visible messages of ostracism than are provided in the Cyberball game. For example, studies that have used other methods of ostracism (e.g., purposely excluding them during a task orientated activity involving confederates; Twenge & Campbell, 2003) have found that narcissists react aggressively when socially rejected. Thus, rejection may relate to aggression in individuals with high levels of narcissistic traits, but not when the Cyberball game is used. It is possible that Cyberball does not send explicit enough messages to capture the attention of those at the higher end of the narcissism spectrum. Individuals with high levels of narcissistic traits may have high levels of implicit self-esteem (McGregor, Nail, Kocalar, & Haji, 2007) that can act as a buffer to events that may be threatening to the self-concept such as those involving social ostracism (Dijksterhuis, 2004). Thus, narcissistic individuals may need more information suggesting they are being excluded, as they may otherwise think that the exclusion event was an anomaly.

We conducted two experiments to test the effectiveness of a new, but very similar, game to Cyberball with additional features to further contribute to the feelings of social ostracism, particularly in those who have high levels of narcissistic traits. In experiment 1, we tested the new game (which we named “Cyberpass”) alongside Cyberball and measured the effects they had in those participants specifically with high levels of trait narcissism. In experiment 2, we further tested Cyberpass by conducting an experimental version of a previous study (Blinkhorn, Almond, &

Lyons, 2016) in which the game was played before answering questions relating to attitudes towards violence.

5.3 Experiment 1

This experiment tested the new game Cyberpass alongside Cyberball and measured the effects they had on those participants specifically with high levels of trait narcissism. We hoped that due to the additional features, Cyberpass would illicit stronger feelings of exclusion than Cyberball. We predicted that Cyberpass would create lower feelings of happiness, boredom, and acceptance, and higher feelings of exclusion, specifically in those who have high levels of trait narcissism.

5.4 Method

Participants

The sample consisted of 80 participants ($M = 20.06$, $SD = 3.34$, 26% males). A lab-based experiment was advertised at a University in North-West England to undergraduate students who could participate in exchange for course credit. Due to the length of the study and the number of conditions involved, it was decided that 80 participants would be sufficient.

Measures

As in the previous studies (Chapter 2, 3 & 4), narcissism was measured using the 40-item forced-choice Narcissistic Personality Inventory (NPI; Raskin & Terry,

1988) and points were totalled to create an overall narcissism score (range = 1–36) (Cronbach's $\alpha = .87$).

Participants' feelings regarding the games were recorded using 4 visual analogue scales on a sheet of paper, each with a 10cm line underneath with 'very' on the left and 'not at all' on the right. They were asked to make a cross on the line to indicate to what extent they felt happy, bored, accepted, and excluded based on the game they had just played. For example, 'How happy do you feel right now?' The answers were calculated by measuring the distances of the marks on the lines and then entered into SPSS.

Materials

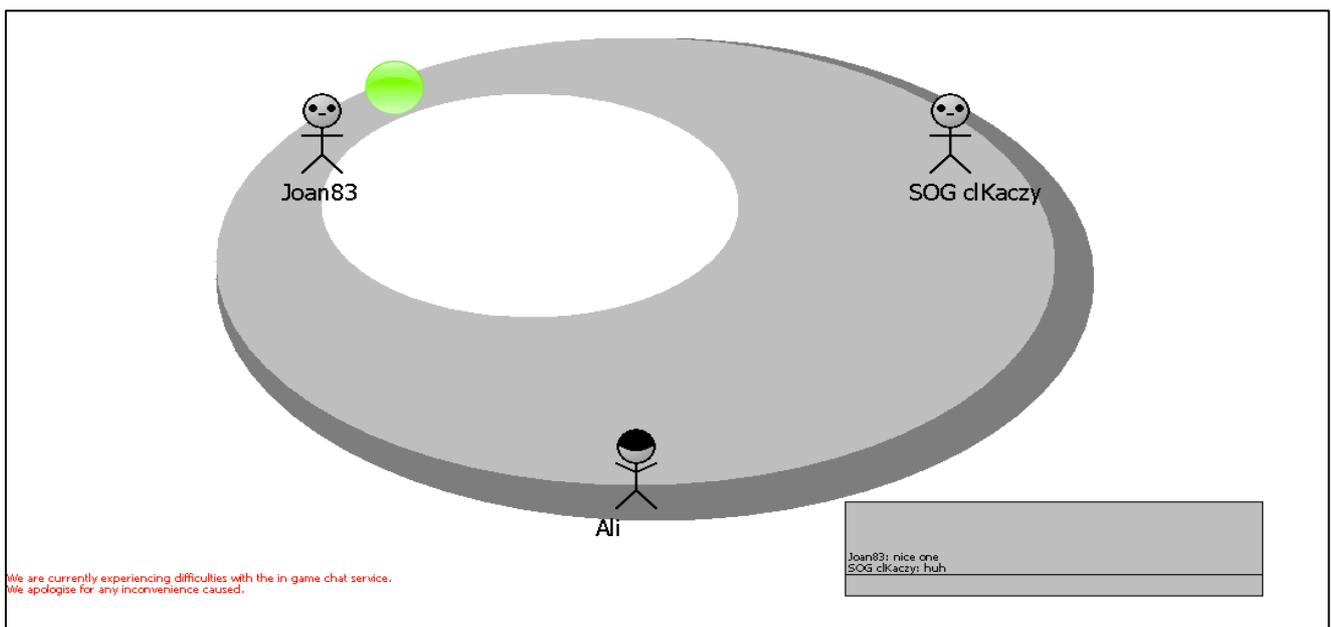
Cyberball 4.0 (Williams, Yeager, Cheung & Choi, 2012), an ostensibly online ball tossing game, was used in which participants were lead to believe they were playing with two others. However, the two others were computer-generated confederates represented by an avatar and randomised name. When the participant's own avatar was in possession of the ball, they were to use the mouse to indicate which of the other two players they wished to throw it to. Within the inclusion condition, participants were passed the ball equally mimicking a typical fair game of ball passing. In the exclusion condition, they were only passed the ball twice at the start and then excluded for the remainder of the game.

Cyberpass was created for the purposes of this study using Java. It mimics Cyberball in terms of the number of participants, the two conditions, and general game-play. Extra detail was added in the form of a chat box in the bottom right of the screen, which presented randomised comments from the two computer-generated confederates such as 'got it' and 'haha'. The way in which the chat box was displayed

mimicked what chat boxes look like on real games, therefore, participants may be more convinced that the game they were playing was real. A message in red text was visible in the bottom left of the screen that read ‘We are currently experiencing difficulties with the in game chat service, we apologise for any inconvenience caused’. As such, participants were unable to type a response in the chat box (see Figure 1). There were two main purposes of this feature. First, it was to make it clear to the participants that they were unable to type responses in the chat box, and that they were being treated differently to the other players. Second, it was to prevent the participants from attempting to type in comments, and contemplating why they were not able to do so throughout the duration of the game. As such, their focus would remain on the actual gameplay and condition they were in (i.e., included or excluded).

Figure 1

Cyberpass game play screenshot



Procedure

Firstly, participants answered demographic questions and completed the NPI. Secondly, they played the first game and answered 4 questions regarding their feelings. Thirdly, they were then asked to do a word search for 3 minutes that acted as a distraction task. Fourthly, they played the second game and answered the same 4 questions regarding their feelings. There were four conditions involved in the study, 20 participants in each. In condition 1 and 2, participants were included in both games and played Cyberball or Cyberpass first, respectively. In conditions 3 and 4, participants were ostracised in both games and played Cyberball or Cyberpass first, respectively. Participants were assigned to the conditions sequentially in order to ensure equal numbers in each. All participants were fully debriefed at the end of the study.

5.5 Results

To assess participants' experiences of each game, ratings for each of the four visual analogue scales (happiness, boredom, acceptance and exclusion) were analysed in separate mixed ANOVAs, where game (Cyberball/Cyberpass) was a within-subjects factor and group (Inclusion/Exclusion) was a between-subjects factor (all pairwise comparisons were Bonferroni corrected).

Ratings of *happiness* did not differ between games, $F(1, 78) = 0.322, p = .6, \eta_p^2 = .004$. There was a significant effect of group, $F(1, 78) = 19.578, p < 0.001, \eta_p^2 = .201$, where the Inclusion group ($m = 66.05, se = 2.77$) reported feeling happier than the Exclusion group ($m = 48.75, se = 2.77$). There was no game \times group interaction, $F(1, 78) = 1.103, p = 0.3, \eta_p^2 = .014$.

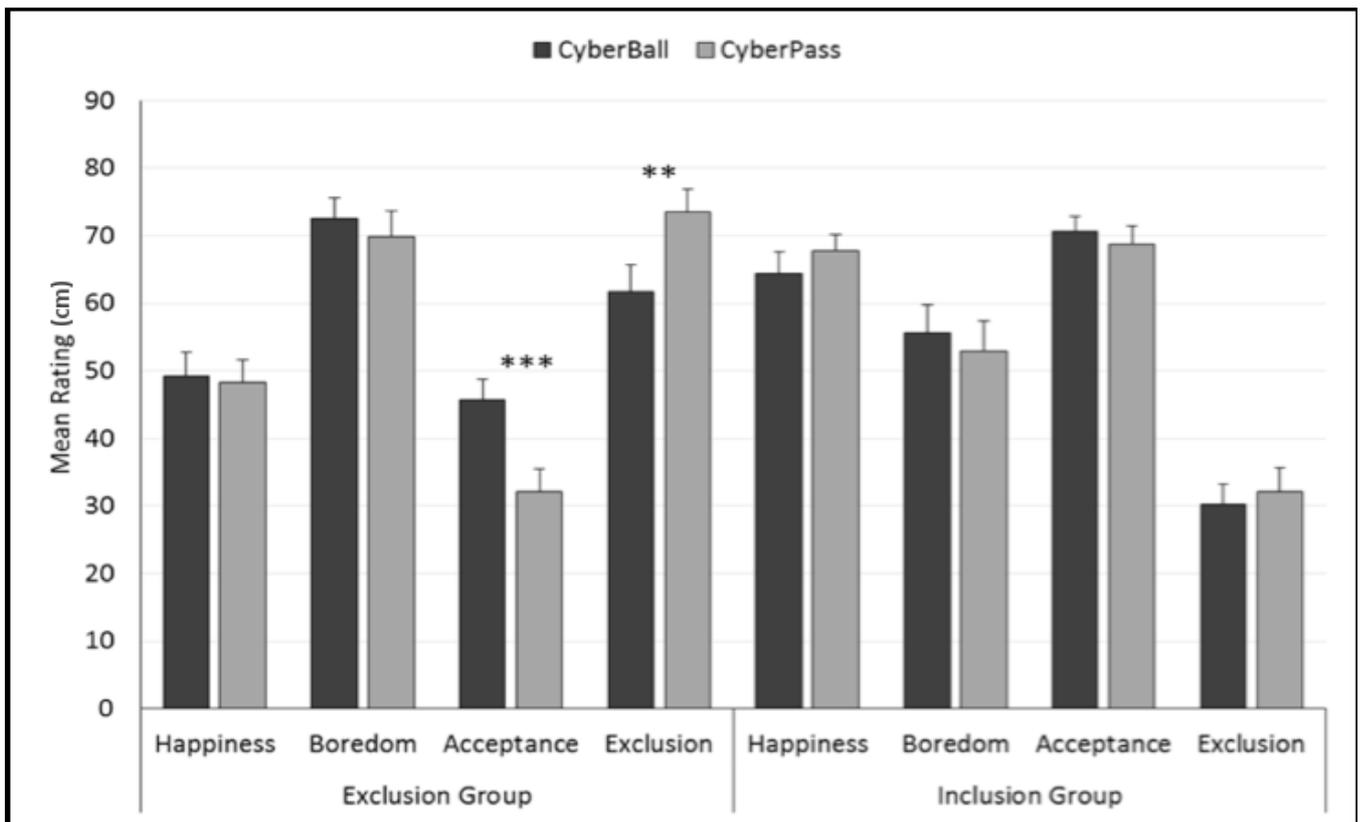
Ratings of *boredom* did not differ between games, $F(1, 78) = 1.185, p = .3, \eta_p^2 = .015$. There was a significant effect of group, $F(1, 78) = 12.032, p = 0.001, \eta_p^2 = .134$, where the Exclusion group ($m = 71.25, se = 3.46$) reported feeling more bored than the Inclusion group ($m = 54.30, se = 3.46$). There was no game \times group interaction, $F(1, 78) < 0.001, p = .9, \eta_p^2 < 0.001$.

For ratings of *acceptance*, there was a significant effect of game, $F(1, 78) = 12.955, p = .001, \eta_p^2 = .142$, where ratings were greater for Cyberball ($m = 58.13, se = 1.96$) than for Cyberpass ($m = 50.43, se = 2.19$). There was a significant effect of group, $F(1, 78) = 74.614, p < .001, \eta_p^2 = .489$, where the Inclusion group ($m = 69.64, se = 2.52$) reported feeling more accepted than the Exclusion group ($m = 38.91, se = 2.52$). There was also a significant game \times group interaction, $F(1, 78) = 7.414, p = .008, \eta_p^2 = .087$, where the Exclusion group reported feeling less included in Cyberpass than in Cyberball (mean difference = $-13.53, p < .001$) but ratings did not differ between games for the Inclusion group (mean difference = $-1.88, p = .5$), see Figure 1.

For ratings of *exclusion*, there was a significant effect of game, $F(1, 78) = 8.366, p = .005, \eta_p^2 = .097$, where ratings were greater for Cyberpass ($m = 52.763, se = 2.48$) than for Cyberball ($m = 45.94, se = 2.58$). There was a significant effect of group, $F(1, 78) = 67.915, p < .001, \eta_p^2 = .465$, where the Exclusion group ($m = 67.56, se = 3.13$) reported feeling more excluded than the Inclusion group ($m = 31.14, se = 3.13$). There was also a significant game \times group interaction, $F(1, 78) = 4.312, p = .041, \eta_p^2 = .052$, where the Exclusion group reported feeling more excluded in Cyberpass than in Cyberball (mean difference = $11.73, p = .001$) but ratings did not differ between games for the Inclusion group (mean difference = $1.93, p = .6$), see Figure 2.

Figure 2

Mean ratings for the four visual analogue scales (happiness, boredom, acceptance and exclusion) for the Inclusion and Exclusion groups. Error bars show one standard error of the mean.



In Table 1, we report the correlations between the NPI score and the ratings for both games in each condition. No relationships were found between the total NPI score and the ratings for both games in the included condition. In the excluded condition, Total NPI score was negatively associated with happiness in the Cyberball game. For the Cyberpass game, NPI score was negatively associated with happiness, boredom, and being accepted.

Table 1

Multiple correlations for Total NPI score and the game ratings for each condition.

	Happiness <i>r</i>	Boredom <i>r</i>	Accepted <i>r</i>	Excluded <i>r</i>
Included Cyberball (n=20)				
Total NPI	-.06	-.06	.19	-.09
Included Cyberpass (n=20)				
Total NPI	.18	-.10	.08	.01
Excluded Cyberball (n=20)				
Total NPI	-.35*	.16	-.13	-.17
Excluded Cyberpass (n=20)				
Total NPI	-.45**	-.34*	-.37*	.23

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

5.6 Discussion

This experiment tested a new game, Cyberpass, alongside Cyberball, and measured the effects they had on participants generally, and also more specifically those with high levels of trait narcissism. We hoped that due to the additional features, Cyberpass would elicit stronger feelings of social ostracism than Cyberball, specifically in relation to narcissism. Firstly, we found that Cyberpass generally evoked significantly stronger feelings of exclusion and a lack of acceptance. Secondly, in relation to those with high levels of narcissistic traits, Cyberpass created a significant lack of acceptance, less boredom, and less happiness.

5.7 Experiment 2

This experiment further tested Cyberpass by conducting an experimental version of a previous study (Blinkhorn, Almond, & Lyons, 2016). Using online questionnaires, Blinkhorn et al., (2016) investigated narcissism and attitudes towards violence in a non-offending population. They found that males scored significantly

higher on total narcissism and all attitudes towards violence. However, when narcissism was investigated in relation to specific attitudes, it was found that narcissistic females were equally accepting of violence as men were. In addition, attitudes towards violence in males related to more socially desirable, adaptive narcissism, whereas in females, attitudes towards violence were related to both adaptive and maladaptive narcissism.

This experiment used the Narcissistic Personality Inventory (NPI; Raskin & Terry, 1988) and the Velicer Attitudes Towards Violence Scale (VATVS; Anderson et al., 2006) as did Blinkhorn et al., (2016), with the addition of having participants play Cyberpass before answering the questions relating to attitudes towards violence. Based on the results from experiment 1, demonstrating that Cyberpass is capable of eliciting feelings of social rejection, we predicted that when participants with high levels of trait narcissism are excluded in Cyberpass, it may lead to them having more accepting attitudes towards violence. As research has already shown that narcissists react aggressively when socially rejected (Twenge & Campbell, 2003), it is possible that if participants in this study feel angry about being excluded, it may show through answering more ruthlessly regarding their attitudes towards violence.

5.8 Method

Participants

The sample consisted of 80 female participants ($M = 20.49$, $SD = 5.00$). A lab-based experiment was advertised at a University in North-West England to undergraduate students who could participate in exchange for course credit. We chose to focus on females in this experiment as Blinkhorn et al. (2016) found a specific

relationship between attitudes towards violence and maladaptive narcissism in females. As such, we wanted to investigate whether this finding would be strengthened when adding feelings of social exclusion created by Cyberpass. As with experiment 1, due to the length of the study and the number of conditions involved, it was decided that 80 participants would be sufficient.

Measures

Again, narcissism was measured using the 40-item forced-choice NPI (Raskin & Terry, 1988), as per experiment 1. Points were totalled to create an overall narcissism score (range = 1-36) (Cronbach's $\alpha = .89$). As in the previous studies (Chapter 2, 3 & 4) the three-factor structure (Ackerman et al., 2011) was used where the NPI is split into Leadership/ Authority ($\alpha = .76$), Grandiose Exhibitionism ($\alpha = .70$), and Entitlement/Exploitativeness ($\alpha = .70$).

As per the second study (Chapter 3), attitudes towards violence were measured by the VATVS (Anderson et al., 2006). Responses were totalled to create an overall score (range = 45–195) and four individual subscale scores; war ($\alpha = .97$), corporal punishment of children ($\alpha = .99$), penal code violence ($\alpha = .96$), and intimate violence ($\alpha = .99$).

Materials

Cyberpass, the newly tested online ball tossing game from the previous experiment, was used to illicit feelings of social exclusion.

Procedure

Firstly, participants answered demographic questions and completed the NPI. Secondly, they played Cyberpass, and then finally completed the VATVS. There were two conditions involved in the study, 40 participants in each. In condition 1, participants were included in the Cyberpass game and in condition 2, they were ostracised. All participants were fully debriefed at the end of the study.

5.8 Results

Table 2 presents the descriptive statistics and condition differences for all measures (all p-values were adjusted using the Holm-Bonferroni method). No significant differences were found in relation to narcissism and the subscales. Participants in the excluded condition scored significantly higher on Total Attitudes Towards Violence and each of the subscales.

Table 2

Descriptive statistics and condition differences for all measures.

	Mean (SD)			<i>t</i>
	Overall <i>n</i> = 80	Included <i>n</i> = 40	Excluded <i>n</i> = 40	
Total NPI	13.13 (7.63)	11.63 (7.16)	14.63 (7.88)	-1.78
Leadership/Authority	3.53 (2.58)	2.83 (2.35)	4.23 (2.63)	-2.51
Grandiose Exhibitionism	2.91 (2.33)	3.00 (2.45)	2.83 (2.24)	0.33
Entitlement/Exploitativeness	1.15 (1.30)	0.90 (1.06)	1.40 (1.48)	-1.74
Total Attitudes Towards Violence	92.03 (47.81)	74.33 (23.49)	109.73 (58.61)	-3.55**
War	35.41 (13.25)	31.48 (7.71)	39.35 (16.25)	-2.77**
Corporal Punishment of Children	16.55 (11.51)	12.50 (6.31)	20.55 (13.98)	-3.32**
Penal Code Violence	19.01 (8.94)	15.88 (6.00)	22.15 (10.28)	-3.34**
Intimate Violence	21.08 (16.00)	14.48 (7.60)	27.68 (19.30)	-4.03***

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

In Table 3, we report the associations between the NPI and VATVS subscales for both conditions (all *p*-values were adjusted using the Holm-Bonferroni method). In the included condition, the total NPI score was positively associated with War and Intimate Violence. No relationships were found in relation to the NPI subscales. In the excluded condition, Total NPI, Leadership/Authority and Entitlement/Exploitativeness were positively associated with each of the four VATVS subscales. Grandiose Exhibitionism was positively associated with Corporal Punishment of Children.

When shared variance between the narcissism subscales was controlled in multiple regressions, no relationships were found in the included condition. In the excluded condition, the Entitlement/Exploitativeness facet of the NPI predicted all four subscales of the VATVS.

The Fisher *r*-*z* transformation was used to test the significance of the condition differences within Table 2. Five significant differences were found. The correlation between War ($z = -2.28, p < .05$), Corporal Punishment of Children ($z = -3.61, p < .001$), Penal Code Violence ($z = -3.18, p < .01$), Intimate Violence ($z = -2.62, p < .01$), and Entitlement/Exploitativeness was significantly different within the excluded condition than in the included condition. Further, the correlation between Penal Code Violence and Total NPI ($z = -2.08, p < .05$) was also significantly different within the excluded condition than in the included condition.

Table 3

Zero-order correlations and standardised regression coefficients for NPI and VATVS subscales.

	Leadership/ Authority <i>r</i> (β)	Grandiose Exhibitionism <i>r</i> (β)	Entitlement/ Exploitativeness <i>r</i> (β)	Total NPI <i>r</i>
Condition 1 - Included ($n=40$)				
1. War	.48 (.30)	.44 (.21)	.36 (.09)	.52**
2. Corporal Punishment of Children	.42 (.39)	.34 (.14)	.18 (-.11)	.42
3. Penal Code Violence	.21 (.04)	.35 (.36)	.09 (-.10)	.30
4. Intimate Violence	.42 (.23)	.42 (.25)	.31 (.06)	.55***
Condition 2 - Excluded ($n=40$)				
1. War	.54*** (.25)	.46 (-.06)	.72*** (.63***)	.63***
2. Corporal Punishment of Children	.54*** (.19)	.50** (-.02)	.77*** (.69***)	.69***
3. Penal Code Violence	.51** (.22)	.46 (-.01)	.68*** (.58**)	.66***
4. Intimate Violence	.55*** (.28)	.44 (-.11)	.73*** (.65***)	.65***

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

5.9 Discussion

This experiment further tested Cyberpass by conducting an experimental version of a previous study (Blinkhorn et al., 2016), and investigated the effects of social exclusion on narcissism and attitudes towards violence in a non-offending population. No significant differences were found in relation to narcissism and the conditions, however, participants scored significantly higher on Total Attitudes Towards Violence and each of the VATVS subscales in the excluded condition. Further, in the included condition, the total NPI score was positively associated with War and Intimate Violence and in the excluded condition, Total NPI, Leadership/Authority and Entitlement/Exploitativeness were positively associated with each of the four VATVS subscales. Further, Grandiose Exhibitionism was positively associated with Corporal Punishment of Children in the excluded condition.

When shared variance between the narcissism subscales was controlled in multiple regressions, the Entitlement/Exploitativeness facet of the NPI predicted all four subscales of the VATVS in the excluded condition. The Fisher r-z transformation also confirmed that the correlations between all four subscales of the VATVS and Entitlement/Exploitativeness, and Penal Code Violence and Total NPI were significantly different within the excluded condition than in the included condition.

5.10 General Discussion

We conducted two experiments to test the effectiveness of a new, but very similar, game to Cyberball with additional features to further contribute to the feelings of social ostracism, particularly in those who have high levels of narcissistic traits. In experiment 1, we tested the new game (which we named “Cyberpass”) alongside Cyberball and measured the effects they had in those participants with specifically high levels of trait narcissism. In experiment 2, we further tested Cyberpass by conducting an experimental version of a previous study (Blinkhorn, Almond, & Lyons, 2016) in which the game was played before answering questions relating to attitudes towards violence.

In experiment 1 we found no significant differences between how participants felt when playing both games within the inclusion condition. In contrast, in the exclusion condition, participants felt significantly less accepted and significantly more excluded when playing Cyberpass compared to Cyberball. Our results are congruent with those of Zadro et al (2004) in that games such as Cyberball and Cyberpass can elicit feelings of exclusion and low acceptance when a participant is not passed a ball to in the game. It is not surprising that Cyberpass elicited significantly higher feelings of exclusion and lower acceptance due to the additional

features; mainly the chat box and the error message, stating that they could not respond. This added detail emphasised the participants' feelings within the excluded condition. Indeed, when debriefing participants in both experiment 1 and 2, participants were asked whether they thought the games were real. The majority of participants thought Cyberball was not a real online multiplayer game and almost 80 per cent mentioned that they thought Cyberpass was real. This is noted down by the researcher at the time, however, in future studies, a questionnaire should be used in order to measure this more accurately.

When investigating the relationship between narcissism and the rating of the games, no associations were found between the NPI score and the ratings for both games in the included condition. However, in the excluded condition, the NPI score was negatively associated with happiness in the Cyberball game. For the Cyberpass game, the NPI score was negatively associated with happiness, boredom, and being accepted. In addition, although not significant, Cyberpass also elicited much stronger feelings of exclusion than Cyberball. These findings were also not surprising as they support the idea that some people with high levels of narcissistic traits may too have high levels of implicit self-esteem (McGregor, Nail, Kocalar, & Haji, 2007) that can act as a buffer to events that may be threatening to the self-concept such as those involving social ostracism (Dijksterhuis, 2004). Thus, highly narcissistic individuals may need additional information to make the exclusion more salient, as they may otherwise think that the exclusion event was an anomaly. As such, these results suggest that the chat box and error message on Cyberpass elicited strong enough feelings to break through those high levels of implicit self-esteem, and the features on Cyberball were not enough.

In experiment 2 we found that in the included condition, the total NPI score was positively associated with War and Intimate Violence. This could be due to those individuals with high levels of narcissism having accepting attitudes towards these types of violence irrespective of the condition in this study. Indeed, it is well regarded that there are direct links between narcissism and intimate violence (e.g. Mouliso & Calhoun, 2015; Russell & King, 2017; Simmons, Lehmann, Cobb, and Fowler, 2005), and the same was also found in the original version of this study (Blinkhorn et al., 2016). Therefore, it would be expected that narcissism would relate to accepting attitudes regarding this behaviour. No relationships were found in relation to the NPI subscales, however, in the excluded condition, Total NPI, Leadership/Authority and Entitlement/Exploitativeness were positively associated with each of the four VATVS subscales. Further, Grandiose Exhibitionism was positively associated with Corporal Punishment of Children. These findings suggest that when feeling socially excluded, those with high levels of narcissistic traits are further likely to have more accepting attitudes towards violence.

Further, when shared variance between the narcissism subscales was controlled in multiple regressions, no relationships were found between them and the included condition. However, in the excluded condition, the Entitlement/Exploitativeness facet of the NPI predicted all four subscales of the VATVS. This finding suggests that the Entitlement/Exploitativeness facet of the NPI is more toxic, or maladaptive, particularly in relation to having more accepting attitudes towards violence. In addition, it also suggests that individuals who have high levels of this facet of narcissism do not react well to being socially excluded. These findings are not surprising as the three-factor structure used by Ackerman et al., (2011) consider the Entitlement/Exploitativeness facet to be socially toxic or

maladaptive in nature. The findings are also congruent with a number of studies that have found this facet of narcissism to be related to maladaptive behaviours such as courtship violence (Ryan, Weikel & Sprechini, 2008), sexual violence (Russell & King, 2017), sexual assault perpetration (Mouilso & Calhoun, 2015), and a range of general violent offending behaviours (Blinkhorn, Lyons, & Almond, 2018).

The findings from both experiments also compliment, and can be explained by, Bushman and Baumeister's (1998) findings on narcissism and threatened egotism. They concluded that the combination of narcissism and ego threat, via negative interpersonal feedback, results in high levels of aggression. When those with high narcissistic traits were excluded from Cyberpass, they felt less happy, less accepted and had more accepting attitudes towards violence. Therefore, it is possible that being excluded during the game threatened their ego and the anger produced from this was visible through their attitudes towards violence.

Of course, our study does have some limitations. First, as our sample only involves university students, the results have lower generalisability which means lower levels of external validity (Hultsch, MacDonald, Hunter, Maitland, & Dixon, 2002). Further, even though focussing on just females within the second experiment was needed to demonstrate the effect Cyberpass had on attitudes towards violence in those with high levels of narcissism, it also limits the generalisability of the findings. As such, we encourage more research be conducted using Cyberpass including both males and females in order to develop a deeper understanding into the effects Cyberpass has on individuals with high levels of narcissism. Second, as with all self-report methods, it is never guaranteed that participants are fully honest in their answers. However, the study was carefully planned and adhered to strict ethical guidelines concerning anonymity, therefore, our results may be less susceptible to

socially desirable responding. Also, when the first initial self-report measures for narcissism were constructed, they were found not to be related to social desirability (e.g. Emons, 1987; Watson, Grisham, Trotter, & Biderman, 1984). Third, the Cronbach's alpha values of the VATVS dimensions were notably high and this is also the case in previous research (e.g. Blinkhorn et al, 2016). A maximum alpha value of .90 is recommended as anything higher suggests that some items in the measure are redundant and testing the same question but in a different guise (Hair, Sarstedt, Ringle, & Gudergan, 2018). As such, we recommend future research look to re-validate the VATVS, including a cross-cultural perspective.

It is important to note that since we began running this study, a new version of Cyberball (version 5.0) has been released, which includes numerous new features. However, it does not have the same specific features that Cyberpass has which seem to be important when researching social exclusion and narcissism, i.e., the chat box and the error message. Therefore, it could be argued that Cyberpass is still the stronger alternative to provoke feelings of social exclusion in narcissists. However, more research is required in order to re-test the validity and effectiveness of Cyberpass for specifically studying narcissism. A copy of the game can be provided upon request.

In conclusion, the results of this experiment provide preliminary evidence that specific visual features are required to induce feelings of social ostracism in narcissistic individuals when using tools such as ball-toss games. We have discussed what types of features in a game are required to provoke a reaction in individuals with high levels of narcissistic traits, and provided an alternative tool to use when conducting research on the area. These results suggest that despite being highly sensitive to being socially ostracised, narcissists may employ strategies to protect

themselves from social ostracism. These strategies appear to break down in the face of specific visual cues, such as a broken chat box, which may symbolise restriction in self-expression or being able to control a social situation.

5.11 Conclusion to Manuscript

The two studies involved in this manuscript aimed to firstly, create a new research tool which could more effectively prime participants into feeling socially ostracised or excluded than 'Cyberball'. Secondly, use the new tool in a lab version of the study in chapter 2 to investigate whether priming participants to feel socially ostracised would elicit even higher acceptance of attitudes towards violence than what was originally found in chapter 2.

Both aims were fulfilled. It can be suggested that the new tool seemed to elicit more feelings of exclusions and less of acceptance than Cyberball, specifically in relation to narcissism, and by using the tool in the second study, when females were excluded, the socially toxic construct of narcissism predicted more accepting attitudes towards violence.

Chapter 6 - Discussion

6.1 Key Findings

Taken together, the 4 research articles within this thesis reveal a number of key findings. A major theme which is present in all 4 papers concerns the sex differences in those with high levels of narcissistic traits, specifically in relation to how it may influence certain attitudes and behaviours. It was found that adaptive forms of narcissism (Leadership/Authority and Grandiose Exhibitionism), were related more to males, and maladaptive narcissism (Entitlement/Exploitativeness) more to females. This was found in relation to sexually coercive behaviour, attitudes towards violence, and a variety of offending behaviours. When looking at the significance of these sex differences, it was found that narcissistic females were just as likely to engage in sexually coercive behaviour (chapter 2) and have more accepting attitudes towards violence (chapter 3) as men. In addition, it was found that narcissistic females were more likely to engage in offending behaviour, specifically general acts of violence (chapter 4), than males.

These results compliment a number of well-established theories and previous findings on narcissism, and as such, provide an understanding as to why these relationships exist. For example, the specific findings in chapter 2 compliment the narcissistic reactance theory of rape and sexual coercion (Baumeister et al., 2002). This theory proposes that sexual coercion may stem from a combination of narcissistic tendencies and reactance, and the reactance is caused when a narcissistic individual's sexual desires are rejected. The findings chapter 2 suggest that when rejected from a sexual advance, narcissistic females are just as likely to react with

sexually coercive tactics as males are. As Baumeister et al's (2002) theory was only tested on males (Bushman et al., 2003), these findings extend this theory by providing relevance for both sexes.

The majority of findings presented within this thesis support, and can be explained by, Bushman and Baumeister's (1998) findings on narcissism and threatened egotism. They concluded that the combination of narcissism and ego threat results in high levels of aggression towards the source of the threat. The results from chapter 2 can be further explained by this as if a narcissistic individual were to be rejected from a sexual advance, it would most likely threaten their ego, and as a result, further contribute to their subsequent sexually coercive behaviours. In addition, the findings from chapter 4 demonstrated that females with high levels of narcissistic traits were more likely to have engaged in offending behaviours, specifically violent types of offending. Bushman and Baumeister's (1998) perspective on threatened egotism could also contribute to the understanding of these findings as it could be that the offending behaviour was a result of the individual having had their ego threatened in some way. In chapter 5, it is even more clear that threatened egotism was what contributed to the findings as when those with high levels of narcissistic traits were excluded from Cyberpass, they felt less happy, and less accepted. In addition, after being excluded from Cyberpass it was found that they had more accepting attitudes towards violence. As such, it is possible that being excluded during the game threatened their ego, and the anger produced from this was visible through their attitudes towards violence.

All four research chapters found that adaptive forms of narcissism (Leadership/Authority and Grandiose Exhibitionism), were related more to males, and maladaptive narcissism (Entitlement/Exploitativeness) more to females, specifically

related to sexually coercive behaviour, attitudes towards violence, and a variety of offending behaviours. This finding compliments a number of previous studies. For example, Simmons et al. (2005) investigated males and females who had been arrested for domestic violence and found higher rates of clinical maladaptive narcissistic personality traits in females. Similarly, Ryan et al. (2008) found that in young dating couples, females with higher levels of Entitlement/Exploitativeness were more sexually coercive towards their current partner than males.

In terms of the reasons as to why maladaptive narcissism was more prevalent in females across all four research chapters, Morf and Rhodewalt (2001) provide an explanation. In their proposed dynamic self-regulatory processing model of narcissism, they suggest that males may be more likely to express overt/grandiose narcissism whereas females may use more indirect and discreet ways to fulfil their narcissistic goals. The findings involved in this thesis compliment this view as the aspects of narcissism which relate to male sexual coercion, for example, (Leadership/Authority and Grandiose/Exhibitionism) are clearly more overt/grandiose in nature. In contrast, the aspect of narcissism that relates to female sexual coercion (Entitlement/Exploitativeness) involves more manipulative traits and is associated with higher levels of Machiavellianism (Ackerman et al., 2011).

Taken together, these findings suggest that, specifically in non-forensic populations, this form of narcissism may be an important predictor of more accepting attitudes towards violence, sexually coercive, and offending behaviour in females. As such, it could be that when females have high levels of narcissism, these maladaptive traits become more prominent and contribute to even more hostile, aggressive, and violent behaviour when rejected, or experiencing threat. This would also explain why no such relationships were found in males.

6.2 Further Analysis

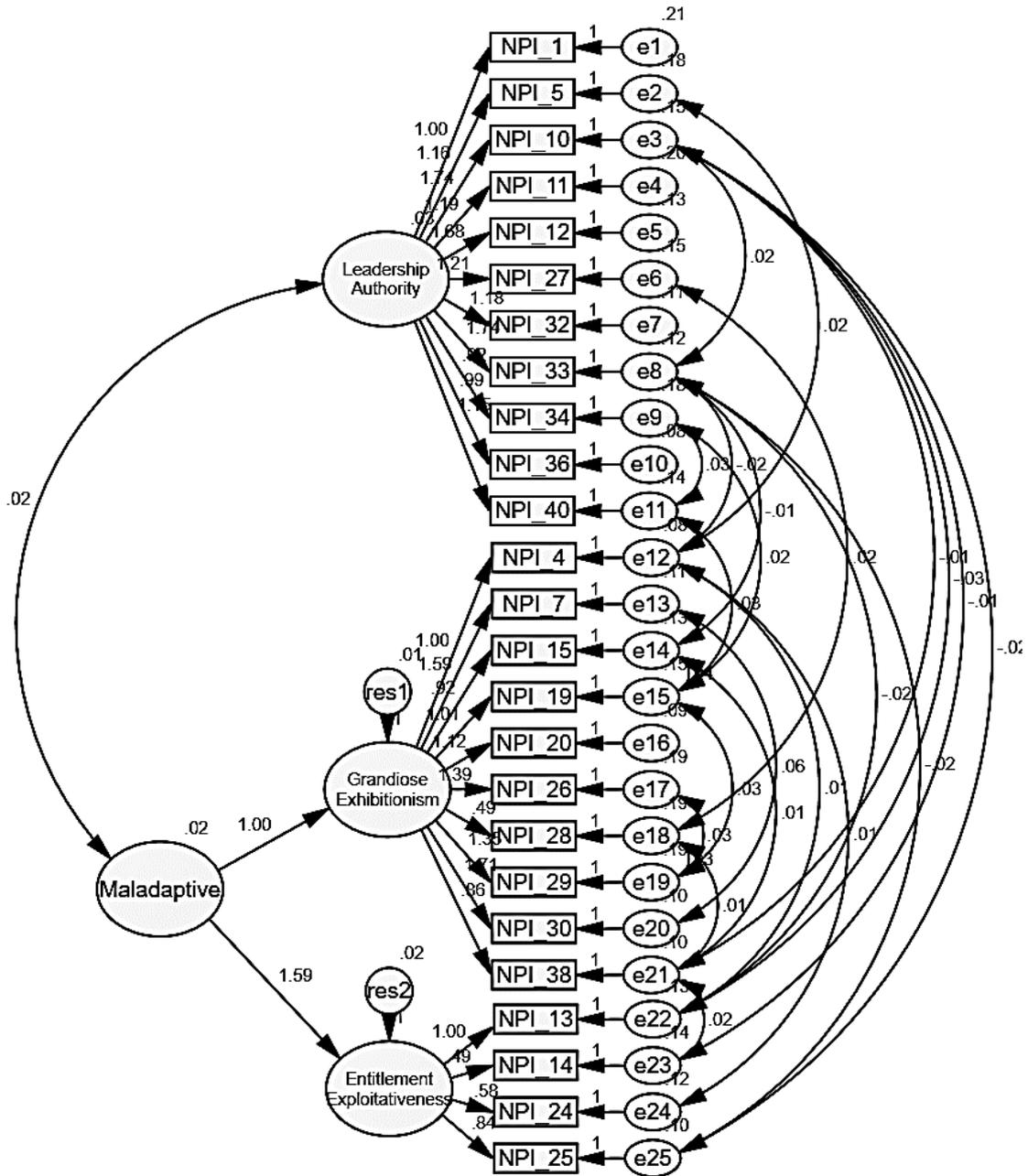
After all studies were complete, the data was pooled in order to test the validity of the three-factor structure (Ackerman et al., 2011) of the NPI (Raskin & Terry, 1988). The total sample involved 1121 participants who had completed the NPI (Raskin & Terry, 1988). Exploratory Factor Analysis (EFA) was conducted using Principal Component Analysis as an extraction method and Varimax with Kaiser Normalization. The results showed that the NPI (Raskin & Terry, 1988) is indeed a three-dimension construct. As such, a Confirmatory Factor Analysis (CFA) was also conducted. All fit indexes came to correspond with the EFA results, $X^2/df = 2.408 < 3$; GFI (Goodness of fit index) = .942 > .9; CFI (Comparative fit index) = .921 > .9; TLI (Tucker–Lewis index) = .904 > .9; RMSEA (Root mean square error of approximation) = .042 < .08; SRMR (Standardised root mean square residual) = .0429 < .08 (Mahmoud & Grigoriou, 2017; Bentler, 1990; Byrne, 2010; Hu & Bentler, 1995; Jöreskog & Sörbom, 2015; MacCallum, Browne, & Sugawara, 1996) and the NPI (Raskin & Terry, 1988) was confirmed as a three-factor variate comprising: Leadership/Authority (eigenvalue = 3.9 > 1, % variance = 15.7, $\alpha = .79$), Grandiose Exhibitionism (eigenvalue = 2.9 > 1, % variance = 11.8, $\alpha = .77$), Entitlement/Exploitativeness (eigenvalue = 2.4 > 1, % variance = 9.6, $\alpha = .54$). The results were congruent with Ackerman et al. (2011) and showed a three-factor measurement structure. In addition, a similarly low level of internal consistency for Entitlement/Exploitativeness was found, however, as noted in the first study (Chapter 2), this is consistent with other research (e.g. Cater, Zeigler-Hill, & Vonk, 2011; Jones & Figueredo, 2013; Vonk, Zeigler-Hill, Mayhew, & Mercer, 2013) and despite statistically appearing low in internal consistency, theoretically, the items within that factor can be deemed reliable.

Exploratory Factor Analysis Standardised Pattern Loadings for the Three-Factor

Model

	Leadership/ Authority	Grandiose Exhibitionism	Entitlement/ Exploitativeness
NPI 1	.459		
NPI 5	.456		
NPI 10	.742		
NPI 11	.507		
NPI 12	.577		
NPI 27	.471		
NPI 32	.558		
NPI 33	.748		
NPI 34	.387		
NPI 36	.559		
NPI 40	.453		
NPI 4		.326	
NPI 7		.512	
NPI 15		.614	
NPI 19		.680	
NPI 20		.393	
NPI 26		.572	
NPI 28		.403	
NPI 29		.645	
NPI 30		.546	
NPI 38		.361	
NPI 13			.527
NPI 14			.570
NPI 24			.623
NPI 25			.624

Confirmatory Factor Analysis



6.3 Limitations and Further Research

The research involved in this thesis is not without its limitations. The first three research articles had samples which were composed of both university students and community members. This mixture is a clear strength of the studies, yet, there was an imbalanced ratio of males to females. Nevertheless, as the focus of the studies were on females, this became an advantage due to having higher numbers of female participants. In addition, the first three had the same methodology, utilising online-based self-report questionnaires. When using self-report tools, it is never a guarantee that participants are fully honest in their answers. However, due to the complete anonymity of the survey guaranteed by the on-line environment, it could be suggested that the results may actually be less susceptible to socially desirable responding (e.g. Kreuter, Presser, & Tourangeau, 2008; Link & Mokdad, 2005).

The research article presented in chapter 5 has different strengths and limitations due to the use of experimental methods. In both experiments, the samples only involved university students. As such the results have lower generalisability and therefore, lower levels of external validity (Hultsch et al., 2002). Further, as with the first three, the inclusion of a self-report questionnaire means it is never guaranteed that participants are fully honest in their answers. However, the two studies involved in this article do not benefit from the advantages of the online environment as do the others. As such, the studies may be more susceptible to socially desirable responding due to the participants being in a more exposed environment in a lab (e.g. Kreuter et al., 2008; Link & Mokdad, 2005). Despite this possible limitation, the studies were carefully planned, and adhered to strict ethical guidelines concerning anonymity in an attempt to keep socially desirable responding to a minimum.

With regards to all the studies involved in this thesis, the same self-report measure for narcissism was used throughout, and when this was originally

constructed, it was found not to be related to social desirability (e.g. Emons, 1987; Watson, Grisham, Trotter, & Biderman, 1984). Although these findings are rather outdated now, they still provide additional support that all efforts were made during the research within this thesis, to prevent socially desirable responding.

Although the research articles within this thesis present a modest contribution to the current knowledge on narcissism in females, much further research can be suggested. Firstly, narcissism has been conceptualised in many distinct ways throughout existing literature and this diversity can cause confusion as to which characteristics should be included in scales designed to measure narcissism (Ackerman et al., 2011). Pincus and Lukowitsky (2010) believe there are two distinct forms of narcissism; normal and pathological, and that the NPI (Raskin & Terry, 1988) only measures normal narcissism. They identified two ways in which pathological narcissism can be expressed; grandiosity and vulnerability, and created the Pathological Narcissism Inventory (PNI; Pincus et al., 2009) as a way to measure both facets. However, as mentioned above, Ackerman et al.'s (2011) three-factor structure of the NPI contains both adaptive/normal and maladaptive/pathological elements, and therefore, it is considered a robust, multidimensional, approach to measure narcissism. Nevertheless, future research should investigate whether pathological narcissism, using the PNI (Pincus et al., 2009), is related to attitudes towards violence, sexually coercive behaviour and a variety of offending behaviours. If the NPI (Raskin & Terry, 1988) is indeed an inferior measure for pathological narcissism, then one would expect to find stronger and more significant results using the PNI (Pincus et al., 2009), particularly in females.

Secondly, as discussed above in the key findings, the results found within this thesis could be explained by Bushman and Baumeister's (1998) perspective on

threatened egotism as the behaviours or attitudes presented were a result of the individual having had their ego threatened in some way. However, due to the nature of the study involved in chapter 4, it was unclear as to whether the offending behaviours reported by females with high levels of narcissistic traits was a result of threatened egotism. As such, more research is specifically needed to investigate the reasons behind the violent offending and whether it was indeed the result of an ego threat or social rejection.

Thirdly, due to the limited scope of this thesis, there are a number of factors which were not investigated. For example, the influence of cultural differences may be interesting to explore in order to highlight whether narcissism is conceptualised differently among diverse cultures, and also whether that may impact on attitudes towards violence, sexual coercion, and offending behaviours.

Finally, in relation to the findings from chapter 5, it is important to note that during the data collection phase, a new version of Cyberball (version 5.0) was released, which includes numerous new features. However, it does not have the same specific features that Cyberpass has which seem to be important when researching social exclusion and narcissism, i.e., the chat box and the error message. Therefore, it could be argued that Cyberpass is still the stronger alternative to provoke feelings of social exclusion in narcissists. Nevertheless, further research should certainly replicate experiment 1 using the new version of Cyberball to confirm that Cyberpass is still the more effective tool. In addition, more research is also required in order to re-test the validity and effectiveness of Cyberpass for specifically studying narcissism.

6.4 Practical and Theoretical Implications

Taken together, the findings presented in this thesis offer a number of practical and theoretical implications. The findings support and also expand on a number of well-established theories within the field. As mentioned above, the results compliment the narcissistic reactance theory of rape and sexual coercion (Baumeister et al., 2002) which proposes that narcissists can be sexually coercive due to being rejected. This theory was only tested on males, therefore the findings from this thesis expand on what is already known by demonstrating that this theory may also apply to narcissistic females. Further, the findings presented within this thesis also support Bushman and Baumeister's (1998) perspectives on narcissism and threatened egotism, that the combination of narcissism and ego threat results in high levels of aggression towards the source of the threat. Again, as the majority of research on narcissism and aggression, or offending behaviour, has mainly concentrated on males, the findings from this thesis demonstrate that females too may act aggressively due to ego threat.

There are a large number of assessment tools used within offender populations worldwide to measure the likeliness of violent recidivism (e.g. The Self-Appraisal Questionnaire; Loza, 2005; Violence Risk Appraisal Guide; Harris, Rice & Quinsey, 1993), and to also measure particular personality disorders such as psychopathy due to its links with violent offending (Psychopathy Checklist-Revised; Hare, 1991). However, all such assessment tools are concerned with those individuals who have already committed an offence, and ways to initially prevent offending receive much less attention. The findings presented in this thesis suggest that high levels of narcissism in an individual can predict certain types of offending behaviours in both males and females. As such, in order to attempt to prevent particular types of

offences, narcissism assessment tools could be distributed amongst adolescents in schools as a way to highlight any particular individuals who may be at risk of committing such acts in the future.

6.5 Conclusion

In summary, the findings presented in this thesis contribute to the little existent literature on narcissism in females and compliment a number of theoretical perspectives and previous research. The results from paper 1 provide additional support for the narcissistic reactance theory of rape and sexual coercion (Baumeister et al., 2002). The majority of findings support, and can be explained by, Bushman and Baumeister's (1998) perspective on narcissism and threatened egotism and also Morf and Rhodewalt's (2001) dynamic self-regulatory processing model of narcissism concerning the varying presentations of narcissism in both males and females. Previous research such as Simmons et al. (2005) and Ryan et al. (2008) also correspond with the findings from this thesis, that maladaptive narcissism (Entitlement/Exploitativeness) was more prevalent in females, specifically when related to sexually coercive behaviour, attitudes towards violence, and a variety of offending behaviours. In addition, a new research tool, Cyberpass, has been created and tested in order to more effectively study social ostracism in those individuals with high levels of narcissistic traits.

Overall, these findings demonstrate the importance of including both sexes in any study on narcissism as it was found that females with high levels of narcissistic traits are just as likely, and sometimes more likely, to engage in offending behaviours and have more accepting attitudes towards violence. Further, they stress the importance of investigating narcissism within a normal, non-forensic population, as it

can be seen that individuals with high levels of narcissism from this sample can still be prone to engaging in offending behaviours coupled with having more accepting attitudes towards violence. Taken as a whole, these findings provide a modest contribution to the very little we know on narcissism and females in a non-forensic population. Further research is recommended, as stated above, in order to uncover deeper understandings behind the findings presented within this thesis.

In summary, this thesis aimed to contribute to the very little we know about narcissism in females, specifically concerning attitudes towards violence and actual offending behaviours. Four individual research articles are presented, and taken together, produce a modest contribution to our pre-existing knowledge on female narcissism and criminal attitudes and behaviour. Studies 1 and 2 investigated the relationship between narcissism, sexual coercion, and attitudes to violence with a sample of 329 participants using self-report measures, and study 3 focussed on the link between narcissism and offending behaviour with a sample of 632 participants, all of which were conducted using self-report measures. Study 4 was a lab experiment which investigated the link between narcissism, social exclusion, and attitudes towards violence using 160 participants over 2 individual experiments, adopting both self-report measures and lab-controlled activities on a computer.

The results suggest that narcissistic females are just as likely to engage in sexually coercive behaviour and to have accepting attitudes towards violence as males are. Further, they are also more likely than males to have actually engaged in violent offending behaviour. In study 4, a new research tool, Cyberpass, was created and tested to more effectively study social ostracism in those individuals with high levels of narcissistic traits. All findings demonstrated that maladaptive narcissism (Entitlement/Exploitativeness) is more prevalent in females, specifically when related

to sexually coercive behaviour, attitudes towards violence, and a variety of offending behaviours. Overall, the findings from this thesis demonstrate the importance of including females in studies on narcissism, specifically concerning types of offending behaviours and have several theoretical and practical implications. For example, the findings support and expand on several well-established theories within the field; the narcissistic reactance theory of rape and sexual coercion, and the threatened egotism ideology. In practice, it could be proposed that narcissism assessment tools should be distributed amongst adolescents to highlight any particular individuals who may be at risk of committing such acts in the future.

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8. Appendices

8.1 Ethical Clearance

Dear Minna

I am pleased to inform you that IPHS Research Ethics Committee has approved your application for ethical approval. Details and conditions of the approval can be found below.

Ref: IPHS-1415-075
PI / Supervisor: Minna Lyons
Title: The Relationship Between Narcissism and Criminal Behaviour: An Investigation of a Sub-Clinical Population.
First Reviewer: Chris Dowrick
Second Reviewer: Tim Kirkham
Date of Approval: 14.1.15

The application was APPROVED subject to the following conditions:

Conditions

- 1 All serious adverse events must be reported to the Sub-Committee within 24 hours of their occurrence, via the Research Governance Officer (ethics@liv.ac.uk).
- 2 This approval applies for the duration of the research. If it is proposed to extend the duration of the study as specified in the application form, IPHS REC should be notified as follows. If it is proposed to make an amendment to the research, you should notify IPHS REC by following the Notice of Amendment procedure outlined at <http://www.liv.ac.uk/researchethics/amendment%20procedure%209-08.doc>.
- 3 If the named PI / Supervisor leaves the employment of the University during the course of this approval, the approval will lapse. Therefore please contact the Institute's Research Ethics Office at iphsrec@liverpool.ac.uk in order to notify them of a change in PI / Supervisor.

Best Wishes

Liz Brignal

Secretary, IPHS Research Ethics Committee



Health and Life Sciences Committee on Research Ethics (Psychology, Health and Society)

3 March 2017

Dear Dr Lyons,

I am pleased to inform you that your application for research ethics approval has been approved. Details and conditions of the approval can be found below:

Reference: 1595
Project Title: Personality and Playing Games
Principal Investigator/Supervisor: Dr Minna Lyons
Co-Investigator(s): Miss Victoria Blinkhorn
Lead Student Investigator: -
Department: School of Psychology (including DClinPOsych)
Reviewers: Dr Rebecca Lawson, Prof Julian Pine
Approval Date: 03/03/2017
Approval Expiry Date: Five years from the approval date listed above

8.2 Measures

NPI

Below are a number of statements. Please circle the one (either A or B) that reflects you more.

1. A. I have a natural talent for influencing people.
B. I am not good at influencing people.
2. A. Modesty doesn't become me.
B. I am essentially a modest person.
3. A. I would do almost anything on a dare.
B. I tend to be a fairly cautious person.
4. A. When people compliment me I sometimes get embarrassed.
B. I know that I am good because everybody keeps telling me so.
5. A. The thought of ruling the world frightens the hell out of me.
B. If I ruled the world it would be a better place.
6. A. I can usually talk my way out of anything.
B. I try to accept the consequences of my behavior.
7. A. I prefer to blend in with the crowd.
B. I like to be the center of attention.
8. A. I will be a success.
B. I am not too concerned about success.
9. A. I am no better or worse than most people.
B. I think I am a special person.
10. A. I am not sure if I would make a good leader.
B. I see myself as a good leader.
11. A. I am assertive.
B. I wish I were more assertive.
12. A. I like to have authority over other people.
B. I don't mind following orders.
13. A. I find it easy to manipulate people.
B. I don't like it when I find myself manipulating people.
14. A. I insist upon getting the respect that is due me.
B. I usually get the respect that I deserve.

- 15.** A. I don't particularly like to show off my body.
B. I like to show off my body.
- 16.** A. I can read people like a book.
B. People are sometimes hard to understand.
- 17.** A. If I feel competent I am willing to take responsibility for making decisions.
B. I like to take responsibility for making decisions.
- 18.** A. I just want to be reasonably happy.
B. I want to amount to something in the eyes of the world.
- 19.** A. My body is nothing special.
B. I like to look at my body.
- 20.** A. I try not to be a show off.
B. I will usually show off if I get the chance.
- 21.** A. I always know what I am doing.
B. Sometimes I am not sure of what I am doing.
- 22.** A. I sometimes depend on people to get things done.
B. I rarely depend on anyone else to get things done.
- 23.** A. Sometimes I tell good stories.
B. Everybody likes to hear my stories.
- 24.** A. I expect a great deal from other people.
B. I like to do things for other people.
- 25.** A. I will never be satisfied until I get all that I deserve.
B. I take my satisfactions as they come.
- 26.** A. Compliments embarrass me.
B. I like to be complimented.
- 27.** A. I have a strong will to power.
B. Power for its own sake doesn't interest me.
- 28.** A. I don't care about new fads and fashions.
B. I like to start new fads and fashions.
- 29.** A. I like to look at myself in the mirror.
B. I am not particularly interested in looking at myself in the mirror.
- 30.** A. I really like to be the center of attention.
B. It makes me uncomfortable to be the center of attention.
- 31.** A. I can live my life in any way I want to.
B. People can't always live their lives in terms of what they want.

32. A. Being an authority doesn't mean that much to me.
B. People always seem to recognize my authority.
33. A. I would prefer to be a leader.
B. It makes little difference to me whether I am a leader or not.
34. A. I am going to be a great person.
B. I hope I am going to be successful.
35. A. People sometimes believe what I tell them.
B. I can make anybody believe anything I want them to.
36. A. I am a born leader.
B. Leadership is a quality that takes a long time to develop.
37. A. I wish somebody would someday write my biography.
B. I don't like people to pry into my life for any reason.
38. A. I get upset when people don't notice how I look when I go out in public.
B. I don't mind blending into the crowd when I go out in public.
39. A. I am more capable than other people.
B. There is a lot that I can learn from other people.
40. A. I am much like everybody else.
B. I am an extraordinary person.

PSP

Table 1. Tactics of Postrefusal Sexual Persistence Experienced and Perpetrated by College Men and Women

Tactic	Men experiencing the tactic N = 275		Women experiencing the tactic N = 381		χ^2	Men perpetrating the tactic N = 275		Women perpetrating the tactic N = 381		χ^2
	n	%	n	%		n	%	n	%	
Sexual arousal										
Persistent kissing and touching	138	50.5	269	70.8	27.7*	107	39.3	86	22.6	21.4*
Perpetrator taking off own clothes	113	41.1	140	36.8	1.2	61	22.3	67	17.6	2.3
Perpetrator taking off target's clothes	104	37.8	190	50.0	9.6	75	27.6	58	15.2	14.9*
One or more of the above	149	54.2	278	73.0	24.8*	111	40.4	97	25.5	16.4*
Emotional manipulation and deception										
Repeatedly asking	101	36.9	250	65.8	53.6*	79	29.2	53	13.9	22.8*
Telling lies	59	21.5	161	42.4	31.0*	44	16.2	12	3.1	34.4*
Using authority of older age	24	8.7	51	13.4	3.5	2	0.7	1	0.3	0.8 ^a
Questioning target's sexuality	21	7.6	35	9.2	0.5	7	2.6	6	1.6	0.8
Threatening to break up	12	4.4	36	9.5	6.1	7	2.6	1	0.3	6.9 ^a
Using authority of position	9	3.3	20	5.3	1.5	3	1.1	2	0.5	1.6 ^a
Threatening self-harm	15	5.5	14	3.7	1.2	4	1.5	2	0.5	1.5 ^a
Threatening blackmail	10	3.6	9	2.4	0.9	4	1.5	3	0.8	0.7 ^a
One or more of the above	120	43.6	272	71.4	51.2*	89	32.4	58	15.2	27.0*
Exploitation of the intoxicated										
Taking advantage of a drunken target	81	29.5	160	42.1	11.0*	35	12.9	19	5.0	12.9*
Purposefully getting a target drunk	30	10.9	95	25.0	20.5*	16	5.9	4	1.1	12.4*
One or more of the above	84	30.5	167	43.8	11.9*	36	13.1	20	5.2	12.6*
Physical force, threats, harm										
Blocking target's retreat	53	19.3	80	21.1	0.3	8	2.9	4	1.1	3.1
Using physical restraint	25	9.1	85	22.4	20.1*	11	4.0	8	2.1	2.1
Using physical harm	17	6.2	33	8.7	1.5	3	1.1	2	0.5	0.7 ^a
Threatening physical harm	3	1.1	24	6.3	11.0*	2	0.7	2	0.5	0.1 ^a
Tying up a target	10	3.6	3	0.8	6.6	3	1.1	4	1.1	0.0 ^a
Threatening with a weapon	3	1.1	7	1.8	0.6 ^a	2	0.7	1	0.3	0.8 ^a
One or more of the above	68	24.7	116	30.4	2.6	14	5.1	10	2.6	2.8
One or more of all the above	159	57.8	297	78.2	31.2*	118	43.2	101	26.5	19.9*

Note. Some percentages are based on less than the total N because of missing data.

^a The chi-square test was invalid because of small cell sizes.

* $p < .001$.

NVOBS

TABLE 1. Results of Principal Components Factor Analysis With Varimax Rotation ($n = 337$) of NVOBS for Men and Women Showing the Final Five-Factor Solution*

Item	Rotated Factor Loadings	Parcel
Factor 1. General Violence (GV: 12 items)		
1. Kicked someone	.85	GV1
2. Hit someone with a fist	.77	GV1
3. Pushed grabbed or shoved someone	.75	GV1
4. Bent someone up	.70	GV2
5. Scratched someone	.67	GV2
6. Slammed/held someone against a wall	.65	GV2
7. Hit or tried to hit someone with something hard besides a fist	.63	GV3
8. Bit someone	.61	GV3
9. Threw something at someone	.61	GV3
10. Slapped someone	.58	GV4
11. Twisted someone's arm or hair	.57	GV4
12. Bent someone's fingers	.54	GV4
Eigenvalue	6.32	
% Variance explained	14.71	
α	.89	
Factor 2. Drugs (5 items)		
13. Used ecstasy	.84	D1
14. Used cocaine/crack	.79	D1
15. Used speed	.77	D1
16. Used cannabis	.73	D2
17. Gang of 3 + fighting, causing damage/disturbance	.61	D2
Eigenvalue	3.48	
% Variance explained	8.09	
α	.79	
Factor 3. IPV (8 items)		
18. Kicked partner	.79	IPV1
19. Hit partner with fist	.76	IPV1
20. Slapped partner	.75	IPV1
21. Bent partners fingers	.68	IPV2
22. Threw something at partner	.63	IPV2
23. Pushed grabbed or shoved partner	.48	IPV2
24. Scratched partner	.45	IPV3
25. Twisted partners arm/hair	.43	IPV3
Eigenvalue	3.37	
% Variance explained	7.83	
α	.74	
Factor 4. Criminal Damage (CD: 4 items)		
26. Damaged something in a public place	.67	CD1
27. Graffiti	.62	CD1
28. Broke windows of empty building	.55	CD2
29. Damaged others property on purpose	.46	CD2
Eigenvalue	2.90	
% Variance explained	7.74	
α	.71	
Factor 5. Theft (T: 4 items)		
30. Stole 5-50	.67	T1
31. Stole <5	.66	T1
32. Possessed stolen property	.48	T2
33. Enter building to steal/damage	.44	T2
Eigenvalue	2.40	
% Variance explained	5.58	
Overall α	.70	

VATVS

REVISED ATTITUDES TOWARDS VIOLENCE SCALE: Scoring version

This version was first published in Anderson, C.A., Benjamin, A.J., Wood, P.K., & Bonacci, A.M. (2006). Development and testing of the Velicer Attitudes Toward Violence Scale: Evidence for a four-factor model. *Aggressive Behavior, 32*, 122-136.

Please indicate the extent to which you agree or disagree with the following statements. Write the number corresponding to your level of agreement or disagreement in the blank line in front of each item.

- 1 = Strongly Disagree
2 = Disagree
3 = Neither Agree or Disagree 4 = Agree
5 = Strongly Agree

- W 1. War is often necessary.
W 2. Any nation should be ready with a strong military at all times.
C 3. Children should be spanked for temper tantrums.
P 4. Any prisoner deserves to be mistreated by other prisoners in jail.
W 5. Violence against the enemy should be part of every nation's defense.
P 6. Prisoners should have more severe labor sentences than they do.
W 7. Killing of civilians should be accepted as an unavoidable part of war.
P 8. No matter how severe the crime, one should pay an eye for an eye and a tooth for a tooth."
C 9. Punishing a child physically when she/she deserves it will make him/her a responsible and mature adult.
P 10. Violent crimes should be punished violently.
W 11. Our country has the right to protect its borders forcefully.
W 12. The manufacture of weapons is necessary.
I 13. It is all right for a partner to choke the other if insulted or ridiculed.
P 14. The death penalty should be a part of every penal code.
P 15. Prisoners should never get out of their sentence for good behavior.
W 16. Universities should use armed police against students who destroy university property.
C 17. Giving mischievous children a quick slap is the best way to quickly end trouble.
I 18. It is all right for a partner to slap the other's face if insulted or ridiculed.
P 19. Capital punishment is often necessary.
W 20. Our country should be aggressive with its military internationally.
W 21. A violent revolution can be perfectly right.
C 22. A parent hitting a child when he/she does something bad on purpose teaches the child a good lesson.
C 23. A child's habitual disobedience should be punished physically.
I 24. It is all right for a partner to slap the other's face if challenged.
I 25. Partners should work things out together even if it takes violence
I 26. The male should not allow the female the same amount of freedom as he has.
C 27. An adult should beat a child with a strap or stick for being expelled.
C 28. Young children who refuse to obey should be whipped.
I 29. It is all right for a partner to choke the other if they hit a child.
I 30. It is all right to coerce one's partner into having sex when they are not willing by forcing them.
W 31. Every nation should have a war industry.
I 32. It is all right for a partner to shoot the other if they flirt with others.

C 33. A teacher hitting a child when he/she does something bad on purpose teaches the child a good lesson.

W 34. War in self-defense is perfectly all right.

I 35. The partner is the appropriate one to take out the frustrations of the day on.

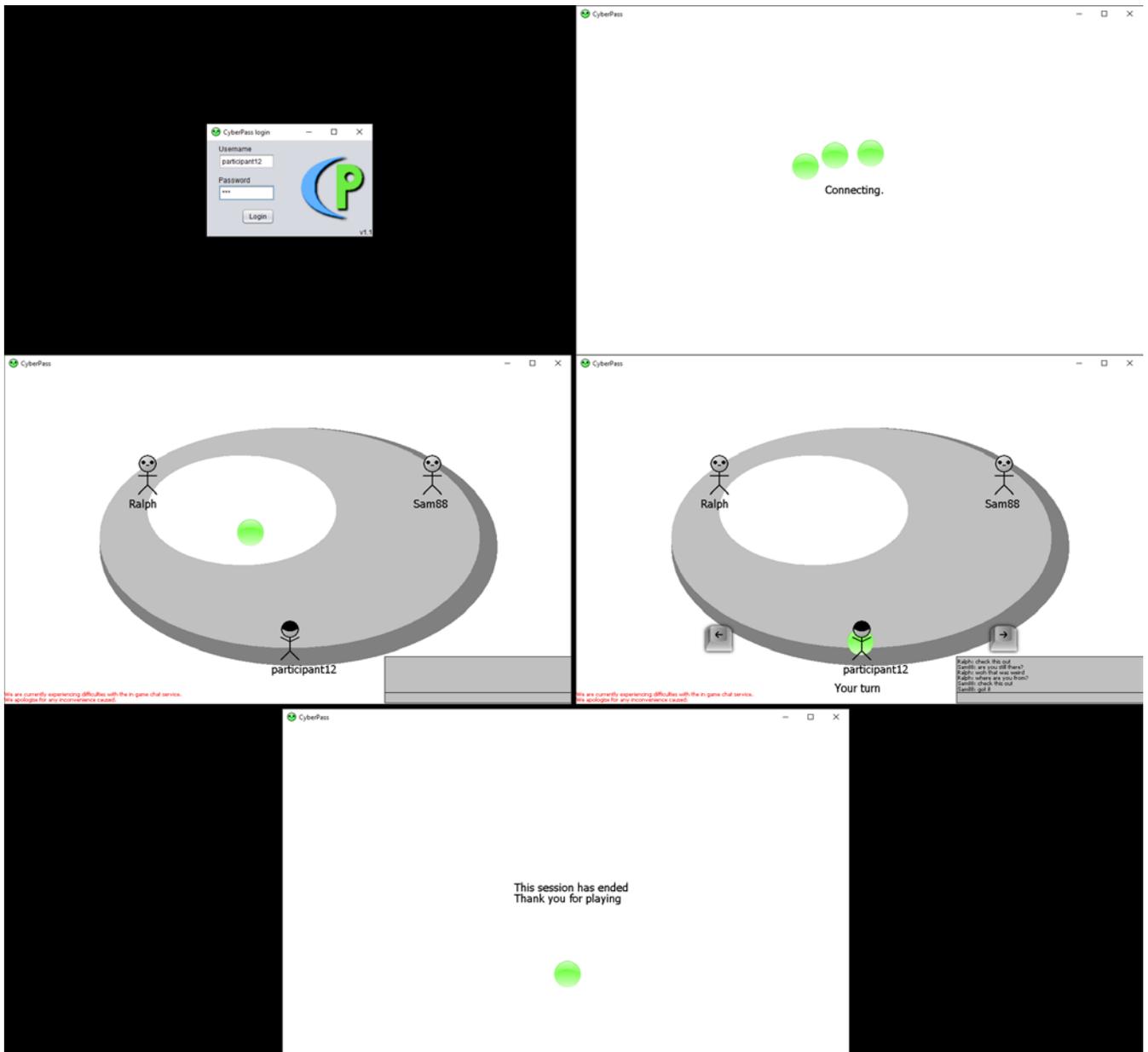
I 36. It is all right for a partner to shoot the other if they are unfaithful.

W 37. War can be just.

I 38. It is all right to coerce one's partner into having sex when they are not willing by giving the other alcohol or drugs. I 39. The dominant partner should keep control by using violence.

W = War; C = Corporal punishment of children; P = Penal code violence; I = Intimate violence

8.3 Cyberpass Screenshots



Direct link to the game where it can be downloaded and used:

<https://www.rogodigital.com/software/cyberpass/>