INHUMAN TARGETS:
Psychopathy, Dehumanization, and Sexist and Violent Attitudes Towards Women

by

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Dedication

I dedicate this thesis to my family and friends, without your love and support none of this would have been possible.
Abstract

The current work presents three studies that examined the role of dehumanization in the association between psychopathy and sexist and violent attitudes towards women. This program had two overarching goals in examining psychopathy, dehumanization, and sexist and violent attitudes towards women. The first goal was to examine whether an indirect association between psychopathy and negative attitudes towards women existed through dehumanization. The second goal was to explore if, by introducing information that humanizes women, levels of dehumanization could be mitigated for individuals high on psychopathic traits. Employing mixed samples for both studies (student and community), Study 1 (n = 514) and Study 2 (n = 202) provided evidence that psychopathy demonstrated an indirect relationship with sexist and violent attitudes towards women via dehumanization. Study 2 also expanded on Study 1 by including a behavioural measure of violent attitudes towards women. Finally, Study 3 (n = 206), again using a mixed sample, attempted to manipulate dehumanization to see if it, and the sexist and violent attitudes associated with it, would be mitigated. Unfortunately, the manipulation failed, but we were able to use the data from Study 3 to provide a replication of the results of Study 2. Across three studies results suggested that the path from psychopathy to negative attitudes towards women was at least partially (if not fully) indirect through dehumanization. This suggests that dehumanization may be an important mechanism to consider when examining the tendency of individuals high in psychopathic traits to engage in violence towards women. Furthermore, because psychopathic traits are associated with violence perpetrated against women, dehumanization could be an important construct to consider when examining potential avenues for clinical interventions. Even more broadly, dehumanization could be an important construct for mitigating the association between psychopathy and violence generally.
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CHAPTER 1
General Introduction

Recently the media has placed a grim spotlight on the prevalence of sexual misconduct perpetrated against women. Reports of sexually inappropriate interactions are occurring in the political arena across the spectrum of affiliations (Le Miere, 2017), in the entertainment industry (Criss, 2017), and a variety of other domains (Relman, 2017). Even in the absence of sexual misconduct, women in the workplace face the burden of unequal treatment, representation, and compensation (Glogovac, 2016). Indeed, research suggests that women in the workplace can experience as many as two sexist interactions each week (Swim, Hyers, & Cohen, 2001). In general, women are dehumanized and depreciated for being irrational, for being weaker, and for being at the command of their biological processes (pregnancy and menstruation) (Goldenberg & Roberts, 2004). From this strife the MeToo and Times Up movements were born; they were created to draw attention to the prevalence of sexual misconduct against women. These movements gathered A-list supporters; the stars of Hollywood donned black dresses as a sign of solidarity at the 2018 Golden Globes and gave impassioned speeches calling for change in the treatment of women at the 2018 Oscars (Gonzales, 2018; North, 2018; Ramos, 2018).

Although it is clear that society is becoming aware of the prevalence of the mistreatment of women, this does not necessarily mean that change will happen. For some, the events of 2017/2018 give them a sense of déjà vu. Indeed, some have argued that the most recent MeToo movement is the second of its kind (Graham, 2017). Twenty-eight years ago, accusations of sexual misconduct perpetrated against Anita Hill sparked what could be referred to as the first MeToo movement. Ms. Hill was put before the Supreme Court where she was questioned and made to defend not only her accusations, but also her character. Some observers have pointed out
that the events of 2017/2018 are a bizarre repeat of the attitudes and climate of the early 1990’s (Bradley, 2018). During this time the treatment of women in the work place was brought to the forefront, and the theme of the Oscars in 1993 was “The Year of the Woman,” and was made to reflect that changes were happening in the status of women (Chira & Einhorn, 2017).

What is clear from this examination is that it is not enough to simply draw attention to the negative treatment of women, this situation cannot be remedied until the characteristics associated with this behaviour and the mechanisms facilitating this behaviour are understood. Research suggests that there are two constructs which may be playing a role in the mistreatment of women: psychopathy (an antisocial personality construct) and dehumanization (a perception or belief that a person(s) is less human than the self (Hodson, MacInnis, & Costello, 2014).

Psychopathy has been consistently linked to some blatantly negative attitudes and behaviours towards women in the literature (Camilleri & Quinsey, 2009; Debowska, Boduszek, Dhingra, Kola, & Meller-Prunsk, 2015; Mager, Bresin, & Verona, 2014; Marshall & Holtzworth-Munroe, 2010; Mouilso & Calhoun, 2012a; Mouilso & Calhoun, 2012b; Mouilso & Calhoun, 2013; Porter et al., 2000; Skovran, Huss, & Scalora, 2010; Watts, Bowes, Latzman, & Lilienfeld, 2017). There is also meta-analytic evidence that psychopathy (clinically assessed with the Psychopathy Checklist-Revised (PCL-R; Hare, 2003)) is one of the strongest predictors of sexual recidivism (Hanson & Morton-Bourgon, 2005; Hawes, Boccaccini, & Murrie, 2013). Indeed, there is an abundance of evidence to suggest that psychopathic personality traits are associated with negative and violent attitudes and behaviours towards women.

What has not been fully investigated in the literature is potential mechanisms that may underlie this association. One such potential mechanism is dehumanization. Dehumanization has also been linked to negative and violent attitudes towards women in the literature (Bernard,
Indeed, an examination of the literature reveals that both psychopathy and dehumanization are associated with the same, or similar measures of negative and violent attitudes towards women. What has yet to be fully investigated is any association they share with one another\(^1\), and any role they play together in predicting sexist and violent attitudes towards women.

The current work was designed to investigate the association between psychopathy and the dehumanization of women, furthermore, it aimed to investigate whether or not dehumanization may explain some of the association between psychopathy and sexist and violent attitudes towards women. The current work was based on the theorized pattern of associations between psychopathy, dehumanization, and sexist and violent attitudes towards women that can be found in Figure 1-1. This model suggests that higher levels of psychopathy are associated with higher levels of dehumanization (a path in Figure 1-1) and sexist and violent attitudes towards women (c path in Figure 1-1). Furthermore, the current work investigated the possibility that there is an indirect association between psychopathy and sexist and violent attitudes towards women via dehumanization, where higher levels of psychopathy are associated with higher levels of dehumanization which are associated with higher levels of sexist and violent attitudes towards women. The following sections will provide in depth definitions of all relevant

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\(^1\) It should be noted that when this program of research was initiated no study had examined the association between psychopathy and dehumanization, since then one study has conducted such an investigation (Takamatsu, 2019), though this study did not investigate the dehumanization of women specifically.
constructs and will walk through each of the predicted paths in Figure 1-1 and provide research and theory which suggests why this specific pattern of direct and indirect associations are viable.

![Conceptual model of the indirect association between psychopathy and sexist and violent attitudes towards women through dehumanization.](image)

**Figure 1-1.** Conceptual model of the indirect association between psychopathy and sexist and violent attitudes towards women through dehumanization.

**Psychopathy**

Though it has been referred to as many different names in the past, a psychopathic personality has been of interest to psychological researchers since the nineteenth century works of Philippe Pinel. The modern clinical conceptualization of psychopathy was pioneered by Hervey Cleckley in 1941. Cleckley (1941) based his definition of psychopathy on clinical interviews he conducted with his patients in a locked psychiatric facility. In his work, Cleckley would encounter individuals who, on the surface, appeared normal (non-disordered). He described this façade of normality as a mask, and this mask hid severe maladjustments. In his seminal work *The Mask of Sanity* he identified the following 16 characteristics of psychopathy:

1. Superficial charm and good intelligence;
2. Absence of delusions and other signs of irrational thinking;
3. Absence of ‘nervousness’ or psychoneurotic manifestations;
4. Unreliability;
5. Untruthfulness and insincerity;
6. Lack of remorse or shame;
7. Inadequately motivated antisocial behaviour;
8. Poor judgment and failure to learn by experience;
9. Pathologic egocentricity and incapacity for love;
10. General poverty in
major affective reactions; (11) specific loss of insight; (12) unresponsiveness in general interpersonal relations; (13) fantastic and uninviting behaviour with drink and sometimes without; (14) suicide rarely carried out; (15) sex life impersonal, trivial, and poorly integrated and; (16) failure to follow any life plan (pp. 338-339).

The Psychopathy Checklist (PCL) and its newer version the Psychopathy Checklist-Revised (PCL-R; Hare, 2003) are considered the gold standards for measuring clinical psychopathy and were built on the conceptualization of psychopathy as outlined by Cleckley (1941). This conceptualization of psychopathy can be broken down into two factors, which can be further broken down into four facets (Hare & Neumann, 2008). Factor 1 is broken down into interpersonal manipulation (defined by glibness, superficial charm, manipulation, pathological deception, and a grandiose sense of self-worth) and callous affect (defined by a lack of remorse and guilt, general shallow affect, callousness, and a failure to accept responsibility). Factor 2 can be broken down into erratic lifestyle (defined by stimulation seeking, impulsivity, irresponsibility, a parasitic lifestyle, and a lack of realistic goals) and antisocial behaviour (defined by poor behavioural controls, early behavioural problems, juvenile delinquency, revocation of conditional release, and criminal versatility).

It should be noted that the PCL-R does diverge from Cleckley’s conceptualization of psychopathy, such that it conceptualizes psychopathy as being more aggressive and antisocial and less positively adjusted (Hare & Neumann, 2008). Indeed, some authors argue that the PCL-R represents a construct drift as it moved away from Cleckley’s original conceptualization (Salekin, 2002). Essentially, it is argued that the original conceptualization of psychopathy was more adaptive and less aggressive and violent (Patrick, 2006). Hare and Neumann (2008) argued that their conceptualization was built off of the works of not only Cleckley (1941), but also their
own empirical findings and the work of other seminal psychopathy researchers including McCord and McCord (1964), Buss (1966), and Karpman (1941). Hare and Neumann (2008) argued that their findings suggest that psychopathy is significantly related to and characterized by violence and aggression, and rather than this representing a fault in their construct, it represents scientific progress. They also argued that they constructed their measure to have strong internal consistency, and certain portions of Cleckley’s conceptualizations did not relate to others, and as such they were not included (Hare & Neumann, 2008). Despite this, the authors maintain that the PCL-R is measuring the same construct as outlined by Cleckley as the PCL-R and measures of the “Cleckley psychopath” are highly correlated (Hare & Neumann, 2008, p. 223).

**Self-report and sub-clinical psychopathy.** Initially psychopathy was studied exclusively from a clinical perspective and was most commonly assessed by clinicians. More recently researchers have developed self-report measures of psychopathy and have begun to study sub-clinical levels of the trait. Initially, thresholds and cut-off scores were created to determine clinical levels of psychopathy, this enabled clinicians to label some offenders psychopaths and others non-psychopaths (for the PCL-R this score is often 30 out of a possible score of 40) (Hare, Neumann, & Mokros, 2018). These cut-off scores are useful because they enable an effective selection of treatment options and provide information necessary for recidivism risk assessments (Hare et al., 2018). However, it is evident from the research conducted on psychopathy that psychopathy is a dimensional construct which exists on a continuum (Edens, Lilienfeld, Marcus, & Poythress, 2006; Hare et al. 2018; Hare & Neumann, 2009). Hare and Neuman (2008) compare psychopathy to medical conditions that also exist on a continuum, such as obesity and hypertension, but are treated as a taxon. These conditions are
evaluated using clinical cut-offs that are useful for categorizing patients for treatment. Though cut-offs are interesting and necessary in a clinical setting, psychopathic traits are normally distributed and can be studied on a continuum, and as such researchers are able to study psychopathy in non-clinical samples (Hare & Neumann, 2008). Though some argue that research in non-criminal samples may result in samples of individuals with psychopathy scores that are necessarily lower than in criminal samples, others would argue that there are psychopaths who are able to function in society without having contact with the criminal justice system (Williams, Paulhus, & Hare, 2007). Because psychopathy is a multi-dimensional construct there are different profiles of psychopathy, such that there are individuals with equally high scores on psychopathy but with different manifestations of traits (Patrick, 2018). For example, a psychopath in the prison system may be higher in traits pertaining to the antisocial behaviour characteristics of psychopathy, and a psychopath not in the prison system may have an equally high psychopathy score but score higher on the interpersonal and affective components of psychopathy (Patrick, 2018).

Because psychopathy scores are normally distributed it is possible to do research in non-clinical settings. Self-report measures of psychopathy represent fast and cost-effective means of assessing psychopathic traits (Sellbom, Lilienfeld, Fowler, & McCrary, 2018). Consequently, researchers have been able to develop subclinical measures of psychopathy and conduct research in universities and the community. Lilienfeld and Andrews (1996) sought to develop a self-report measure of psychopathy more in-keeping with Cleckley’s conceptualization of psychopathy, and in doing so developed the Psychopathic Personality Inventory (PPI; Lilienfeld & Andrews, 1996). Rather than focusing on antisocial behaviour the PPI focuses on personality. This measure includes items which assess constructs from the Cleckley definition of psychopathy that were left
out of the PCL-R, such as low-anxiety. The PPI measures three factors often labelled: Fearless Dominance (PPI-FD), Self-Centered Impulsivity (PPI-SCI), and Cold-heartedness (Lilienfeld & Andrews, 1996; Lilienfeld & Widows, 2005). The PPI-FD includes the following subscales: Fearlessness, Social Potency, and Stress Immunity. The PPI-SCI includes the following subscales: Machiavellian Egocentricity, Blame Externalization, Carefree Nonplanfulness, and Impulsive Non-Conformity. The last component of the PPI, the Cold-heartedness Subscale, does not map onto either factor.

Other self-report measures of psychopathy were designed to map directly on to the PCL-R, one of the most popular measures being the Self-Report Psychopathy Scale (Williams et al., 2007). The Self-Report Psychopathy Scale, currently in its fourth version (SRP-IV: Paulhus, Neumann, & Hare, 2017) originally included items which were selected for their ability to distinguish high PCL scorers from low PCL scorers, but this measure only evidenced small correlations with the PCL (Hare, 1985). The SRP has gone through revisions using item analysis to increase its correlation to the PCL-R (SRP-II: Hare, Hemphill, & Harpur, 1989), and revisions to capture the four-facet structure, reduce the number of items which assess anxiety, improve the assessment of antisociality, and increase reliability (SRP-III, revisions unpublished and SRP-IV: Paulhus et al., 2017). The SRP-IV factor structure maps directly onto the factor structure of the PCL-R: two higher order factors with four underlying facets (Paulhus et al., 2017). The SRP-IV and its predecessors have been well validated in both offender and non-offender samples (Paulhus et al., 2017).

However, despite the popularity of the PCL-R model of psychopathy there has been criticism leveled at the PCL-R and measures of psychopathy that include the assessment of antisocial behaviour (the SRP-IV included) (Skeem & Cooke, 2010). There is evidence to
suggest that the behavioural aspects of psychopathy captured by Factor 2 should be considered outcomes, rather than characteristics of psychopathy (Skeem & Cooke, 2010). It has been argued that measurement tools that include the measurement of anti-social behaviour are assessing outcome behaviours rather than personality (Skeem & Cooke, 2010).

Other psychopathy researchers have taken different approaches to measuring psychopathy. Lynam and colleagues (2011) created a measure of psychopathy to address issues that previous measures of psychopathy had encountered, including: the measurement of behaviour rather than personality, local dependence, and the presence of cooperative suppression. The Elemental Psychopathy Assessment (EPA; Lynam et al., 2011) was developed by employing individual traits from the Big-Five model of personality (Costa & McCrae, 1992). Rather than beginning with a theoretical construct and then developing items which measure its features, Lynam and colleagues (2011) selected 18 facets of higher order personality traits which best described psychopathy. As the researchers were creating a measure of disordered personality from measures of normative personality they created the EPA using more maladaptive interpretations of the 18 items from the Big-5 traits that they selected (Lynam et al., 2011). The EPA has been validated in undergraduate and prisoner samples and has been found to be significantly related to other measures of psychopathy and maladaptive behaviour (Lynam et al., 2011).

Though the current work has only described a handful of the self-report measures that have been developed to assess psychopathy, it is clear from their description that there are discrepancies regarding how psychopathy should be measured and conceptualized. Indeed, the psychopathy literature is plagued with questions regarding the role of aggression and anxiety in psychopathy, questions regarding the role of antisocial behaviour (whether it is a characteristic or
outcome of psychopathy), questions regarding the structure of the construct (dichotomous or continuous), questions regarding sub-groups of psychopathy, and the possibility of the successful psychopath (Patrick, 2018). As such, researchers examining psychopathy should be mindful that outcomes assessed may be differentially related to psychopathy depending on how the construct is measured.

What is generally found, regardless of the measure employed to assess psychopathy, is a persistent association between psychopathic traits and the endorsement and perpetration of negative and violent attitudes and behaviour towards women.

**Psychopathy and Sexism**

![Figure 1-2. Path c of the conceptual model, the direct association between psychopathy and sexist and violent attitudes towards women](image)

Measures of sexism provide insight into both subtle and blatant forms of negative attitudes and biases towards women. The Ambivalent Sexism Inventory (ASI: Glick & Fiske, 1996), for example, measures two forms of sexism: hostile and benevolent. Benevolent sexism refers to the endorsement of restrictive and stereotypical beliefs about women that could be considered subjectively positive. Benevolent sexism involves the belief that women should be put on pedestals and protected. Alternatively, the typical antipathetic feelings towards women traditionally referred to as sexism are measured by hostile sexism. Interestingly, the association
between psychopathy and sexism (see Figure 1-2) is relatively understudied, with only one study investigating the association (Pina, Holland, & James, 2017). This study found no association between psychopathy and sexism, but this may attributable to the fact that the study failed to investigate the different dimensions of both psychopathy and sexism. Pina and colleagues (2017) employed the ASI but did not examine benevolent and hostile sexism separately; consequently, it may not have been possible to examine psychopathy’s true association with sexism. It would be expected that psychopathy would be positively associated with the typical antipathic form of sexism as measured by the hostile sexism subscale. Conversely, it would be unlikely that psychopathic traits would be associated with the attitudes assessed by the benevolent sexism subscale such as putting women on a pedestal. Psychopaths typically have an inflated sense of self-worth and place their own worth far above others (Hare, 1996), and as such are unlikely to endorse benevolent thoughts about women. The current work focused on hostile sexism, with its measurement of antipathetic feelings towards women, because it is in keeping with the current work’s focus on negative and violent attitudes towards women. Though no research has investigated the association between psychopathy and hostile sexism directly, based on the findings regarding the association between psychopathy and other forms of prejudice (which will be discussed below), a positive association between psychopathy and hostile sexism would not be unexpected, or particularly surprising.

First, it is important to clearly define prejudice and constructs relevant to the examination of prejudice. Allport (1954) defined prejudice as thinking ill of others without warrant, this thinking is not based in fact or experience. He stated that prejudice contained two ingredients, denigration and overgeneralization. Prejudice can also be defined as a negative evaluation of an individual that is based mainly on their membership to a specific group (Crandall & Eshleman,
Generally, humans tend to organize their social environment, sorting other humans into ingroups and outgroups (Leyens et al., 2000). Humans tend to prefer their ingroup members and express prejudiced attitudes towards members of outgroups (Leyens et al., 2000). The form that an outgroup takes can be varied and complicated; outgroups can be defined by their race, religious affiliation, sexuality, and gender (Allport, 1954; Glick & Fiske, 1996). Indeed, Allport (1954) suggests that, for misogynists, women are not only considered members of an outgroup, but often seen as another species (of inferior quality). Interestingly, research has demonstrated that individuals high in psychopathic traits tend to employ prejudiced opinions towards the members of a variety of outgroups (Hodson, Hogg, & MacInnis, 2009; Jones, 2013; Parrot & Zeichner, 2006).

Parrot and Zeichner (2006) had participants complete a measure of psychopathy and then face a fictitious opponent (described to them as being either heterosexual or homosexual) in a reaction time competition. In this paradigm participants could administer shocks to their opponents. The researchers found that psychopathy was associated with more aggression (i.e., higher shock intensity) towards homosexual, but not heterosexual opponents. Jones (2013) examined the association between psychopathy and old-fashioned racism (which is defined by a belief that any racial equality is objectionable), and modern racism (which is broad and more politically based and tends to focus on more specific types of inequality, such as equal rights initiatives). They found that psychopathy was associated with higher levels of both old-fashioned and modern racism. Jones (2013) also had participants read statements from both racist and non-racists groups and assessed their agreement with the groups’ sentiments. The researchers found that psychopathy was associated with the endorsement of neo-Nazi ideals. Finally, Hodson and
colleagues (2009) found that psychopathy was associated with prejudiced attitudes towards immigrants.

A stable pattern appears to emerge when reviewing the research examining the association between psychopathy and prejudice: individuals high in psychopathic traits employ unfair appraisals and unjust treatment towards members of outgroups whether that outgroup is based on race (Jones, 2013), status as an immigrant (Hodson et al., 2009), or sexuality (Parrot & Zeichner, 2006). Consequently, though it has yet to be established whether psychopathy is associated with hostile sexism, based on the research examining the link between psychopathy and other forms of prejudice, it seems that a positive link between psychopathy and hostile sexism is likely.

**Psychopathy and Violent Attitudes Towards Women**

Path c (see Figure 1-2) also represents the association between psychopathy and violent attitudes towards women. Research generally finds a consistent and positive association between psychopathy and violent attitudes and behaviour towards women. For example, research has demonstrated that psychopathic traits are associated with the endorsement of rape myths (Debowski, et al., 2015; Mouliso & Calhoun, 2013; Watts et al., 2017). Rape myths are stereotypical or false beliefs about rape, rape victims, and rapists (Burt, 1980). These myths tend to minimize the responsibility of the perpetrator and maximize the responsibility of the victim (Burt, 1980). Similarly, psychopathic traits are also associated with negative attitudes towards rape victims (Watts et al., 2017). This type of measure is similar to measures of rape myth endorsement but focus exclusively on the experience of the victim.

The association between psychopathy and violent attitudes towards women goes beyond negative attitudes and extends to the actual perpetration of violence against women. Indeed,
psychopathic traits are associated with a higher frequency of perpetration of intimate partner violence (IPV) (Mager et al., 2014; Marshall & Holtzworth-Munroe, 2010), as well as intimate partner rape (Camilleri & Quinsey, 2009). Furthermore, psychopathy is associated with the perpetration of sexual assault in both offender (Porter et al., 2000; Skovran et al., 2010), and non-offender samples (Mouilso & Calhoun, 2012a; Mouilso & Calhoun, 2012b). There is even meta-analytic evidence that clinical assessments of psychopathy (assessed with the Psychopathy Checklist-Revised (PCL-R; Hare, 2003)) are some of the strongest predictors of sexual recidivism (Hanson & Morton-Bourgon, 2005; Hawes et al., 2013).

It is generally accepted that psychopathy is associated with negative and violent attitudes towards women. What is unclear, however, is whether there is a mechanism that can explain the association between psychopathy and these attitudes and behaviours. The current work proposes that dehumanization could be a potential mechanism, and a review of the literature examining dehumanization will make that preposition clearer.

**Dehumanization**

Broadly, dehumanization refers to the denying of a person’s (or group of people’s) humanness (Haslam, Loughnan, Reynolds, & Wilson, 2007), or the perception or belief that a person (or group of people), is less human than the self (or person’s ingroup) (Hodson et al., 2014). Dehumanization can be blatant, as exemplified by the Nazis propaganda depicting the Jewish people as vermin, or take on a more subtle manifestation like attributing less human qualities to a specific group. Dehumanization has been researched in terms of the treatment of, and attitudes towards, different racial groups (Costello & Hodson, 2014), ethnic groups (Leyens et al., 2001), refugees (Esses, Veenvliet, Hodson, & Mihic, 2008), immigrants (Costello &
Hodson, 2010; Hodson & Costello, 2007), and in terms of explaining extremes such as genocides and mass killings (Bandura, 1999; Kelman, 1973; Lang, 2010; Savage, 2013; Staub, 1999).

Early dehumanization research tended to focus on understanding extremely violent activities such as genocide and sanctioned mass killings. In what has been referred to as the “new look” of dehumanization, researchers have started to shift their focus away from extreme outcomes and have begun to focus more on everyday occurrences of dehumanization (Haslam & Loughnan, 2014, p. 402). The research conducted by Leyens and colleagues (2001) was the first to spearhead this new perspective of dehumanization. They referred to this everyday form of dehumanization as Infrahumanization, the tendency to deny perceived uniquely human traits to members of an outgroup relative to the amount of uniquely human traits ascribed to an ingroup (Haslam & Loughnan, 2014). The word infrahumanization was chosen intentionally because it diverged from the word dehumanization and reflected that the researchers felt that this everyday dehumanization did not denote that an outgroup was not human, but rather that they were subhuman (Leyens et al., 2007).

Leyens and colleagues (2001) thought that even in the absence of strife humans may deny the humanness of the members of an outgroup. To test this assertion these researchers examined the attribution of primary and secondary emotions to members of ingroups and outgroups. Secondary emotions, such as admiration, pride, and nostalgia are generally thought of as being uniquely human, as they are socially constructed. Primary emotions, such as joy, sadness, and fear, were considered by the researchers to be non-uniueky human, as they are experienced by both humans and non-human animals. It was theorized that if individuals felt that their ingroup was superior to their outgroup then they would attribute more uniquely human attributes to their ingroup than they attributed to their outgroup. They expected that this difference would not be
present in the attribution of non-uniquely human characteristics (Leyens et al., 2007). Using subtle and implicit means to assess how participants would assign emotions to each group, Leyens and colleagues (2000) found that participants were more likely to assign secondary emotions to their ingroup than to their outgroup. The denying of secondary emotions suggests that people see their outgroup’s emotional capacity as less diverse, complex, and refined than their own. These infrahumanization results suggest that this effect goes beyond ingroup favouritism, because these traits are attributed in this way regardless of valence, such that individuals will attribute both positively and negatively valenced uniquely-human qualities to their ingroup (Haslam, 2006). The study of infrahumanization was paramount, because it moved the research of dehumanization away from mass killings and genocide and into the everyday (Haslam & Loughnan, 2014).

Haslam (2006), while acknowledging the importance of the research conducted by Leyens and colleagues, asserted that in order to fully understand dehumanization researchers needed to understand and define the humanness being denied in the dehumanization process. Haslam (2006) viewed infrahumanization as too narrow a definition of dehumanization. He argued that humanness was more than what makes humans different from animals, humanness also involved characteristics that are an essential part of the definition of human nature. Haslam (2006) understood that characteristics that define human nature, such as curiosity, may not be uniquely human, and as such would not fit into the characteristics considered in the examination of infrahumanization. He also argued that there are components of our humanness that are uniquely human, such as politeness, that are not fundamental to our human nature, but would fit into the definition of infrahumanization (Haslam et al., 2007). Haslam argued that this evidence taken together suggested the existence of two unique forms of dehumanization.
Indeed, research suggests that these two forms of humanness have been found to be associated with different qualities and characteristics. People tend to rate human nature as being associated with subjectively positive characteristics, prosocial behaviours, and openness (though it should be noted that it is also associated with negative emotionality) (Haslam, Bain, Douge, Lee, & Bastian, 2005). Human nature tends to be characterized by warmth, cognitive ability, and emotions (Haslam et al., 2005). Qualities reflective of human nature are more universal, common, and tend to emerge early in development (Haslam et al., 2005). Conversely, characteristics associated with unique humanness are not specifically positive or negative in nature. Instead, uniquely-human characteristics reflected intelligence, openness, a tendency towards being social, and self-control (Haslam et al., 2005). Uniquely-human traits are less universal, less common, emerge later in development, and tend to be a function of learning (Haslam et al., 2005).

Based on these two distinct forms of humanness two theoretical forms of dehumanization emerged:

1. Animalistic dehumanization (infrahumanization is an example of this form), where humans are likened to animals (uncultured, coarse, amoral, lacking in self-control, irrational, and childlike). Those who are dehumanized in this capacity are seen as being motivated by their wants, needs, and instincts rather than being cognitively motivated (Haslam, Loughnan, Kashima, & Bain, 2008). Animalistic dehumanization involves a deep importance being placed on the us versus them dynamic, and this form of dehumanization is often accompanied by feelings of disgust.
2. Mechanistic dehumanization refers to likening humans to machines or automatons (inert, cold, passive, rigid, and superficial). It is thought that empathy is important for overcoming this kind of dehumanization.

Animalistic dehumanization is often seen in interethnic perceptions, and perceptions regarding the criminal and disabled, whereas mechanistic dehumanization is often seen regarding the effects of modernity, technology, medical practice, bureaucratic government, and the objectification of women. Interestingly, Haslam and colleagues (2007) suggest that the objectification of women can also reflect a combination of the two forms of dehumanization, specifically in sexual contexts where women are attributed worth based on their body parts (mechanistic dehumanization), but also seen as slaves to their animalistic urges (animalistic dehumanization).

Mind perception dehumanization presents a potential third form of dehumanization. There are two different dimensions of mind perception: agency and experience (Gray, Gray, & Wegner, 2007). Agency refers to mental capacities, or thinking, which distinguishes humans from animals. Experience involves emotions, personality, and consciousness, and separates humans from objects. The mental states that differentiate humans from robots typically involve desire or emotionality-based aspects of human nature (Haslam, Kashima, Loughnan, Shi, & Suitner, 2008). It is possible to overperceive mind, or perceive a mind where no mind is present, such as ascribing a computer with malicious motivations. It is also possible to underperceive mind, or perceive no mind when mind is present, such as ascribing qualities which suggest that a group of individuals do less thinking (or less complex or varied thinking) (Gray, Jenkins, Heberlein, & Wegner, 2011). Consequently, mind perception dehumanization refers to the denying of mental states (or mind) of another human.
Objectification. Haslam and colleagues (2007) classify objectification as a subtype of mechanistic dehumanization. Generally, objectification can be thought of as the reduction of a person to their useful characteristics, these useful characteristics are in line with the goals or needs of the objectifier (Vaes, Loughnan, & Puvia, 2013). The objectification of women can be defined as the viewing of a woman as a body, or a collection of body parts, valued for its ability to be consumed as a commodity by others (Fredrickson & Roberts, 1997). Essentially, objectification results in a woman’s value being based on her body’s ability to provide pleasure for others (Fredrickson & Roberts, 1997). This definition is specific to women, however, women, the weak, and the attractive tend to be objectified more than men, the strong, and the unattractive (Loughnan & Pacilli, 2014).

Typically, objectification is studied from two distinct perspectives, intrapersonal and interpersonal (Loughnan & Pacilli, 2014). The intrapersonal perspective focuses on how and why people objectify themselves (Loughnan & Pacilli, 2014). Conversely, the interpersonal perspective focuses on why and how people objectify others (Loughnan & Pacilli, 2014). The current work was focused on the interpersonal aspects of objectification. The intention of objectification can be both hostile and benevolent, and its expression can be both blatant and subtle (Loughnan & Pacilli, 2014). Catcalling on the street, for example, can be thought of as a hostile blatant form of objectification where a woman’s worth is reduced to her body, and the expression of this belief is flagrant. A more benevolent and subtle form of objectification can be seen in subtle compliments of physical qualities given in social interactions. These compliments, though well intended, place value on a woman’s physical appearance rather than her performance (Loughnan & Pacilli, 2014).
The ways in which objectification is studied in relation to dehumanization is not consistent (Gervais, Bernard, Klein, & Allen, 2013). Some researchers see these two constructs as being the same construct and use the terms relatively interchangeably, other researchers view objectification as a specific form of dehumanization that is nested within the more broad concept of dehumanization (Haslam, 2006; Haslam & Loughnan, 2014; Haslam et al., 2007), others view the constructs as somewhat unique with some shared characteristics (Gervais et al., 2013), and finally, some researchers see them as distinct but related constructs (Vaes, Paladino, & Puvia, 2011; Vaes et al., 2013).

The current work takes the perspective of Haslam and colleagues (2007), such that the current work is based on the perspective that objectification is nested within the realm of dehumanization. The most popular definition of objectification stems from Objectification Theory (Fredrickson & Roberts, 1997) and it defines objectification as the reduction of a woman to the status of an object (commodity). This definition fits nicely within the definition of mechanistic dehumanization as outlined by Haslam and colleagues (2007), as objects are inert, passive, and lacking in emotions. Consequently, the current program of research takes the perspective that objectification is a form of dehumanization.

**Dehumanization and Sexism**

*Figure 1-3. Path b of the conceptual model, the association between dehumanization and sexist and violent attitudes towards women*
Research examining the association between dehumanization and sexism (see path b of Figure 1-3) has found that individuals high in benevolent sexism were more likely to attribute positive secondary emotions to women; conversely, individuals high in hostile sexism were less likely to attribute positive secondary emotions and more likely to attribute primary emotions to women (Viki & Abrams, 2003). Additional research has established a positive link between dehumanization and sexism, though the study combined benevolent and hostile sexism into an overall measure (Pacilli et al., 2017). Unfortunately, the pool of research examining this association is relatively small, and there is some evidence to suggest that the two constructs may not share an association (Rudman & Mescher, 2012), as such it is important to investigate other areas of research to better inform hypotheses regarding the association between dehumanization and sexism.

Although the body of research examining the association between dehumanization and sexism is small, there is a much larger body of research investigating the link between dehumanization and other forms of prejudice. Empirical research examining the link between dehumanization and prejudice has indicated fairly consistent and robust associations, such that dehumanization is positively correlated with prejudice (Bastian, Costello, Loughnan, & Hodson, 2012; Costello & Hodson, 2010; Costello & Hodson, 2014; Esses et al., 2008; Goff, Eberhardt, Williams, & Jackson, 2008; Hodson & Costello, 2007; Leyens et al., 2000). In his review of the literature, Haslam (2006) argues that dehumanization is so pervasive that it is not isolated to antagonistic situations, but instead exists in normative social interactions. Indeed, an examination of the literature reveals that dehumanization exists in an array of contexts from the workplace
Dehumanization is associated with prejudice based on sexuality (MacInnis & Hodson, 2012), with contempt of refugees and immigrants (Esses et al., 2008; Hodson & Costello, 2007), and with the belief that immigrants are not deserving of assistance (Costello & Hodson, 2011). Participants responded kindlier to lost emails containing secondary emotions from ingroup members, than to the same message containing secondary emotions from outgroup members, but do not respond differently when the use of primary, rather than secondary emotions are manipulated (Vaes et al., 2003). More alarmingly, an archival study of articles in criminal cases found that articles about Black individuals were more likely to include ape-like references than articles about White criminals (Goff et al., 2008). Even worse, the cases examined in the articles that included ape-like references were more likely to have the accused sentenced to the death penalty. Taken together the research would suggest that there is a consistent association between dehumanization and various forms of prejudice. As such, even though there is a paucity of research examining the association between dehumanization and sexism, based on the larger body of research, it would not be unexpected.

**Dehumanization and Violent Attitudes Towards Women**

Research does suggest that an association between dehumanization and sexism is likely. The next question that needs to be asked is: does this association go beyond biased assessments of women and move toward more violent attitudes and behaviour? This section will attempt to answer this question by reviewing the literature that examines the association between dehumanization and violent attitudes towards women (Path b in Figure 1-3).
Early research and theory on dehumanization focused on its role in facilitating violence in general (Bandura et al., 1975; Kelman, 1973). Dehumanization has been linked to aggression (Bandura et al., 1975; Greitemeyer & McLatchie, 2011), support for torture (Kteily, Hodson, & Bruneau, 2016; Viki, Osgood, & Phillips, 2013), support for war (Jackson & Gaertner, 2010), and even extreme acts such as genocide and mass killings (Bandura, 1999; Hagan & Raymond-Richmond, 2008; Kelman, 1973; Lang, 2010; Savage, 2013; Staub, 1999).

Bandura and colleagues (1975) conducted an experimental study examining the relationship between dehumanization and aggression. They had participants behave as superiors in charge of punishing subordinates in the form of shocks of varying intensity. Participants were made to overhear a conversation between the researchers where the subordinates were described in terms of being a human, described in neutral terms, or described in dehumanized terms. The researchers found escalated aggression in the dehumanized subordinate group. The dehumanized group received the highest level of mean shock intensity, the humanized group received the lowest mean shock intensity, and the neutral group fell between the other two conditions. The researchers theorized that by dehumanizing a group, the sense of responsibility to act in a humane way was lessened. The results of this research suggest that the mere suggestion that a group has sub-human characteristics can result in increased aggression towards that group, and interestingly, they also suggest that overhearing information about a stranger’s humanness may result in favourable behaviour towards that stranger.

In terms of violent attitudes towards women specifically, research has demonstrated that a relationship exists between objectification and both sexual and non-sexual violence. For example, objectification has been linked to rape myth acceptance (Custers & McNallie, 2017; Papp & Erchull, 2017), as well as rape proclivity (Blake & Gannon, 2014; Galdi et al., 2014;
Research has also found that in the absence of provocation the objectification of a woman can lead to aggression towards that woman (Vasquez et al., 2018). Additionally, research has demonstrated that taking the perspective that women are sex objects mediates the association between exposure to the media’s depiction of women as objects and the endorsement of violence against women (Wright & Tokunaga, 2016).

Objectification is also associated with negative appraisals of female victims of aggressive crimes. Pacilli and colleagues (2017) found that an objectified woman subjected to intimate partner violence was seen as less moral, as experiencing less physical and psychological pain, and participants were less willing to help her compared to a non-objectified woman in the same circumstance. A study found that when a fictitious rape victim was depicted wearing a bikini (objectified condition) (compared to a condition where she was depicted wearing jeans (non-objectified condition) more blame was ascribed to her, and less concern was expressed for her (Loughnan et al., 2013). A study using similar methodology also found that participants in an objectified-victim condition tended to place less blame on the rapist (Bernard et al., 2015).

Indeed, objectified victims in these studies tend to be rated as less deserving of moral treatment (Loughnan et al, 2010), rated as less competent (Heflick & Goldenberg, 2009; Heflick et al., 2011), and rated as being less moral and warm (Heflick et al., 2011). In general, the research suggests that objectifying a victim is associated with negative appraisals of that victim.

It is evident from this review of the literature that a link has been established between dehumanization and sexist and violent attitudes towards women. Research from previous sections also highlighted that psychopathy is similarly associated with constructs related to sexist and violent attitudes towards women. What has, as of yet, remained unexplored is a potential link between psychopathy and dehumanization. Because this association has not been empirically
tested in the literature the next section will highlight theories which suggest that a link between these two constructs is probable.

**Psychopathy and Dehumanization**

![Diagram of the conceptual model](image)

*Figure 1-4. Path a of the conceptual model, the association between psychopathy and dehumanization*

The current work is based on the argument that dehumanization may explain the association between psychopathy and sexist and violent attitudes towards women. (see path a of Figure 1-4) Psychopathy is characterized by a grandiose sense of self-worth (Hare & Neumann, 2008). As such, individuals high in psychopathic traits are naturally predisposed to engaging in self-aggrandizing that places their worth above others. This could suggest that psychopathic traits and dehumanization may share a natural link.

More evidence of the link between psychopathy and dehumanization comes from a theory put forth by Bandura (1999) which suggests that it is empathy that develops into the ability to humanize others. This theory suggests that as children we develop empathy and experience the joys and pains of others. Through this empathetic response we see others as being as human as we ourselves are (thus humanizing those around us). Because of this humanization we develop a social obligation to protect others from the pains that empathy allows us to experience vicariously. To remove the sense of self-disapproval for mistreating others first we
must strip others of their humanity and assign bestial qualities to such individuals. By dehumanizing potential victims, perpetrators will not experience the distress associated with victimizing an individual with whom they empathize with. It is theorized that dehumanization is a means to deny the humanity of target groups, which removes moral and practical restraints enabling ordinary people to perpetrate atrocities such as genocides (Hagan & Raymond-Richmond, 2008). A lack of empathy is a defining characteristic of psychopathy (Hare, 1996), and as such individuals high in psychopathic traits may never develop the tendency to humanize others and may be naturally predisposed to engaging in dehumanization. Because of this, individuals with psychopathic traits may never face self-condemnation for treating others badly, they may be naturally predisposed to treating others in inhumane ways.

There is some evidence to suggest that psychopathic traits may be related to the dehumanization of women specifically. Psychopathy is associated with deceptive and subjectively negative mating strategies (Book, Visser, & Volk, 2015; Jonason & Buss, 2012; Jonason, Li, Webster & Schmitt, 2009; Muñoz Centifanti, Thomson, & Kwok, 2016; Seto, Khattar, LaLumiere, & Quinsey, 1997); strategies that involve deception (Seto et al., 1997), an exploitative sexual style (Book et al., 2015; Jonason et al., 2009), a lack of commitment (Jonason & Buss, 2012), and anonymous, uncommitted sexual fantasy narratives (and behaviour) (Visser, DeBow, Pozzebon, Bogaert, & Book, 2015). As such, psychopathy is associated with a mating style that reflects a willingness to engage in anonymous short-term sexual relationships, and the use of deception and exploitation to achieve mating if necessary. This suggests that individuals high in psychopathic traits may value women for the ability to be sexual mating partners, but little else. This is consistent with the definition of objectification dehumanization where the
valuation of a woman is based on her body’s ability to provide pleasure for others (see Fredrickson & Roberts, 1997).

Though psychopathy is characterized by grandiosity and a lack of empathy, which we argue would lead to a natural propensity to dehumanize all others, there is evidence to suggest that this tendency would be targeted more strongly at members of more specific outgroups. The research on the association between psychopathy and prejudice, examined in a previous section, does suggest that individuals high in psychopathic traits tend to engage in prejudiced attitudes towards specific outgroups (Hodson et al., 2009; Jones, 2013; Parrot & Zeichner, 2006). Though the current work argues that psychopathic traits naturally predispose individuals towards dehumanization in general, we also argue that groups that are distinct from the individual will be dehumanized more than ones that are similar to the individual. This would explain why individuals high in psychopathic traits do tend to negatively evaluate specific outgroups (Hodson et al., 2009; Jones, 2013). This tendency towards prejudiced attitudes suggests that although individuals high in psychopathic traits may tend to value themselves above all, they may dehumanize specific groups more than others. Consequently, we expect male individuals high in psychopathic traits to dehumanize women as an outgroup. Furthermore, we expect that this association may form an indirect link between psychopathy and sexist and violent attitudes towards women.
Psychopathy, Dehumanization, and Sexist and Violent Attitudes Towards Women

Figure 1-5. The proposed indirect link from psychopathy to sexist and violent attitudes towards women through dehumanization

The argument regarding the existence of the indirect association between psychopathy and sexist and violent attitudes towards women through dehumanization (Figure 1-5) is based on the theory put forth by Bar-Tal (2000) that suggests that dehumanization acts as a delegitimizing belief. Bar-Tal explains that delegitimizing beliefs are highly negative appraisals of an outgroup that are accompanied by the belief that the outgroup does not deserve humane treatment and indeed that the group should be treated negatively because they are sub-human. Bar-Tal and Hammack (2012) describe delegitimization as a sociopsychological mechanism, or a psychological permit, which facilitates the perpetration of violence by freeing the perpetrator of any moral restraints associated with the act.

A very similar categorization of dehumanization is as a form of moral exclusion, such that by dehumanizing an individual you are placing them outside of a boundary where fairness, moral concern, moral rules, and moral values no longer apply to them (Opotow, 1990). Based on this categorization, by dehumanizing an individual and morally excluding them these individuals are made in to undeserving non-entities. Once these individuals are morally excluded it is seen as not only tolerable to harm or exploit them, but it is seen as acceptable and justified.
Bar-Tal and Hammack (2012) argued that delegitimization and moral exclusion are similar but distinct processes differentiated by the extremeness of the attitudes expressed, with moral exclusion being much less extreme. Hodson and MacInnis (2016), however, suggested that more everyday forms of delegitimization are also possible, and that delegitimization may facilitate moral exclusion. Essentially, they argued that the delegitimization of a target group leads to moral exclusion, which then facilitates differential treatment toward the target group, such as trivializing their rights and decreasing concerns regarding that group’s protection.

Bar-Tal and Hammack (2012) argued further that the delegitimization needs to be sanctioned or acknowledged in society in order for it to have an extreme effect on the delegitimized group. The delegitimization of women is prominent in most western societies. Media depictions of women tend to be more objectifying and sexualizing than depictions of men (Aubrey & Frisby, 2011; Fredrickson & Roberts, 1997; Stankiewicz, & Rosselli, 2008). Stereotypes persist of women being less intelligent than men (Bian, Leslie, & Cimpian, 2018; Dutt, Pfaff, Bernstein, Dillard, & Block, 2016; Storage, Horne, Cimpian, & Leslie, 2016). Often women are considered more irrational, emotional, and weak than men are, and they are perceived as being controlled by their biological processes (Goldenberg & Roberts, 2004). The ways in which men and women are compensated are also telling of the valuation placed upon women in a given society. In Canada it is estimated that for every dollar earned by a man a woman is compensated between $0.74-$0.88 (Moyser, 2017), which translates into around 47 days that women work yearly without pay (Statistics Canada, 2018). Taken together this could suggest that the delegitimization of women is not only sanctioned, but that it is prominent and ingrained in society.
Consequently, if men high in psychopathic traits are engaging in the dehumanization (delegitimization) of women, it would not appear out of place at a societal level. Furthermore, based on Bar-Tal’s (2000) theory that delegitimization facilitates negative treatment towards the delegitimized group, it could explain why individuals high in psychopathic traits treat women in such inhumane ways. Specifically, if the current work finds the direct path between psychopathy and the dehumanization of women (Figure 1-4), it could suggest that, in line with Bar-Tal’s theory, this dehumanization may be acting as a delegitimizing attitude that is facilitating negative and violent attitudes and behaviour towards women. In other words, if men high in psychopathic traits are endorsing the idea that women are less than human than that may be facilitating behaviour and attitudes towards women that are less than humane.

**The case of Theodor Bundy.** Though no research has been conducted on our predicted indirect pattern of associations there is some anecdotal evidence that would support its viability. Theodor “Ted” Bundy, whom Dr. Hervey Cleckley considered a psychopath, was a prolific American serial killer who admitted to raping, brutalizing, and murdering more than 30 women in the 1970’s (Ramsland, 2013). It is evident that Bundy perpetrated some horrifically negative crimes against women: what is also clear is that he dehumanized them. Bundy would speak of his drive to possess women in the same way others were driven to possess luxury goods like sports cars and paintings (Bearak, 1989). He would also refer to his victims in other blatantly dehumanizing ways, often referring to them as cargo or damaged goods (Simon, 1999). Though this is a singular example it does suggest that dehumanizing attitudes may play a role in the association between psychopathy and sexist and violent attitudes towards women.

Interestingly, Bundy’s description of his victims fits neatly into another theory examining the link between dehumanization and the perpetration of violence. Kelman (1973) theorized that
in order for violent victimizing to occur perpetrators need to overcome any inhibitions they have towards harming victims. For this to happen victims first need to be stripped of their human status, because if a victim loses their human status then moral codes no longer apply to them. Kelman (1973) suggested that there are two principles that define an individual as human: their sense of agency, and their sense of communion. Agency refers to an individual’s independence, individuality, and their ability to make choices and strive for goals. The term communion refers to the membership of an interconnected group of individuals who care for each other, respect each other’s rights, and who would be disturbed by another member’s injury or death. If an individual is stripped of their agency and their sense of communion it is difficult to mourn their loss or feel disturbed by an injury they might sustain. In dehumanizing a group any morality-based restraints against harming the dehumanized individual(s) is removed. Interestingly, the ways in which Bundy describes his victims is congruent with Kelman’s (1973) theory. Bundy’s tendency to refer to his victims as objects is very clearly stripping his victims of their agency. Additionally, he would frequently express genuine confusion regarding the mourning of his victims’ families (Simon, 1999). In reference to his victims’ families, he was quoted as saying things like “What’s one less person on the face of the Earth?” (Simon, 1999, p.23). It is evident from his confusion that he also did not see his victims as being members of an integrated community. As such, this highly psychopathic and violent individual appeared to naturally engage in the type of dehumanization that Kelman suggested would facilitate violence.

Though Bundy only provides a singular and objectively extreme example, it could suggest that in general psychopathy in males may be associated with a tendency to dehumanize women, and these dehumanizing attitudes may be facilitating attitudes and behaviours which are inhumane. The current work was focused on testing these theorized associations empirically. In
line with Bar-Tal’s (2000) supposition that dehumanization is a delegitimizing belief, it was expected that dehumanization could facilitate individuals high in psychopathic traits to express sexist and violent beliefs regarding women. Specifically, we expected that the association between psychopathy and sexist and violent attitudes towards women would be indirect through dehumanization.

**Factor 1 versus Factor 2.** The current work was focused on examining Factor 1 (interpersonal/affective) and Factor 2 (erratic lifestyle/antisocial behaviour) of psychopathy individually rather than as one underlying psychopathy construct. The reasoning behind this decision is the consistent finding that the subdimensions of psychopathy tend to be differently associated with external criterion variables (Neal & Sellbom, 2012; Patrick, 2018). In some circumstances the different subcomponents of psychopathy are related to constructs in opposing directions. For example, the personality and emotional aspects of psychopathy tend to be negatively associated with anxiety, and the impulsive antisocial aspects tend to be positively associated with anxiety (Derefinko, 2015; Gillespie, Mitchell, Satherley, Beech, & Rotshtein, 2015; Patrick, Edens, Poythress, Lilienfeld, & Benning, 2006). Factor 1 traits tend to be related to constructs such as externalizing blame, honesty, narcissism, and disregarding of the feelings of others. Conversely, Factor 2 traits tend to be associated with proneness to boredom, low dependability, a lack of planning, and a gamut of anti-social behaviours (Neal & Sellbom, 2012).

In some circumstances one factor, but not the other, is significantly related to a construct, in other circumstances the strength of the relationship between psychopathy and a dependent variable will vary by factor (Patrick, 2018). Reardon, Lang, and Patrick (2002), for example, found that Factor 2, but not 1, was related to trait impulsivity and substance-abuse problems. Another example can be found in the aggression literature. There is a great deal of meta-analytic
support for the association between psychopathy and violence in general (Guy, Edens, Anothony, & Douglas, 2005; Kennealy, Skeem, Walters, & Camp, 2010; Salekin, Rogers, & Sewell, 1996; Walters, 2003); however, there has been some debate regarding which type of violence is most strongly related to psychopathy. There are two types of violence described in the literature: instrumental and reactive. Instrumental violence is calculated and goal directed, and reactive violence is emotional and often in response to a slight (Blais, Solodukhin, & Forth, 2014). Previous research has suggested that psychopathy is most consistently associated with instrumental violence (Cima & Raine, 2009; Porter & Woodworth, 2007; Williamson, Hare, & Wong, 1978; Woodworth & Porter, 2002); however, a recent and fairly exhaustive meta-analysis has found that the association that psychopathic traits shares with violence depends on the subcomponent of psychopathy being examined. Total psychopathy scores were found to be associated with both reactive and instrumental violence, and no evidence was found to suggest that total psychopathy scores were associated with one type of violence over another (Blais et al., 2014). Interestingly, the researchers found that the components of psychopathy contained within Factor 1 were more strongly associated with instrumental violence, and that the components of psychopathy contained within Factor 2 were more closely associated with reactive violence. This is not surprising as Factor 1 of psychopathy is defined by cold, calculating manipulation, and Factor 2 is characterized by impulsivity and erratic behaviour.

Consequently, it is evident that Factor 1 and Factor 2 of psychopathy can share different relationships with the constructs within their nomological network. Additionally, as research has yet to examine the association between psychopathy and dehumanization and any indirect role dehumanization may play, the decision was made to examine them separately. This allowed us to determine whether the direct and indirect patterns of associations between psychopathy,
dehumanization, and sexist and violent attitudes towards women would be consistent across the two psychopathy factors.

Studies 1 and 2

Based on the theory and research put forth in the preceding sections, Studies 1 and 2 of this program of research investigated the association between psychopathy and sexist and violent attitudes towards women and the indirect effect of dehumanization (see Figure 1-6). Because the association between psychopathy and the dehumanization of women has not been studied before, the current work included multiple measures of dehumanization. Research conducted by Haslam (2006) and Loughnan and Haslam (2014) was examined to identify the different forms of dehumanization to include in the model being tested. Because the associations of interest had not been previously established, it was decided that a variety of forms of dehumanization should be included in all models. As such, the current work included measures of dehumanization based on the assignment of uniquely-human and non-uniquely-human personality traits, emotions, and mental states. Additionally, all studies also included a measure of men’s objectification of women.
Study 1 included dependent variables which assessed self-reported sexist and violent attitudes towards women. There is a large body of research that connects dehumanization to a variety of prejudiced attitudes (Bastian et al., 2012; Costello & Hodson, 2010, 2014; Esses et al., 2008; Hodson & Costello, 2007; Goff et al., 2008; Leyens et al., 2000), as such the current work included a measure of prejudice towards women, specifically a measure of hostile sexism. This is of particular interest because, to the knowledge of the author, no study to date has assessed the association between the individual factors of psychopathy and hostile sexism. A measure of rape myth acceptance was also employed in Study 1, as both dehumanization (Custers & McNallie, 2017; Papp & Erchull, 2017) and psychopathy (Debowska et al., 2015; Mouilso & Calhoun, 2013) have been found to be associated with this construct in the literature. Finally, because psychopathy is associated with the use of violence against women (Hilton & Harris, 2005; Kiire, 2017; Mager et al., 2014; Okano, Langille, & Walsh, 2016; Marshall & Holtzworth-Munroe,
Study 1 included a measure which assessed attitudes supportive of violence against women.

Study 2 included the same measures of psychopathy, dehumanization, and sexism as were included in Study 1, but was designed to build off of Study 1 by including a behavioural measure of violence against women. Study 2 employed a date rape decision latency measure (Marx & Gross, 1995) (see Figure 1-7). This type of measure has participants listen to a coercive sexual encounter and asks participants to indicate when they would stop the encounter. Longer times are indicative of more tolerance of sexual coercion. The methodology of Study 2 allowed for the partial replication of Study 1, but it also moved past self-report results, and was able to speak to more behavioural results.

![Figure 1-7](image-url) - Indirect path model tested in Study 2. Covariances and error terms were tested but are not presented for ease of presentation and clarity.
Psychopathy and the Mitigation of Sexist and Violent Beliefs: Humanization

It is evident from the research reviewed in the above sections that psychopathy has a consistent association with violent attitudes towards women (Debowska et al., 2015; Mouilso & Calhoun, 2013; Watts et al., 2017). The first phase of this program of research was focused on identifying and testing the mechanisms that might facilitate this relationship, namely dehumanization. Specifically, the focus of Studies 1 and 2 was to determine if there was an indirect association between psychopathy and sexist and violent attitudes towards women via dehumanization. Though it was essential that research fill this gap in the literature, it was not enough to stop at identifying mechanisms which facilitated this association. Importantly, though it is clear that research connects psychopathy to sexist and violent attitudes towards women, research also finds a connection between psychopathy and the actual perpetration of violence against women (Hilton & Harris, 2005; Kiire, 2017; Mager et al., 2014; Marshall & Holtzworth-Munroe, 2010; Okano et al., 2016; Quinsey et al., 1995). Consequently, it is paramount that researchers investigate potential avenues for mitigating these associations. As such, the next step in this program of research was directed at investigating whether the indirect association between psychopathy and sexist and violent attitudes towards women can be mitigated. The final phase of this program of research introduced information to participants which either reinforced the idea that women are just as human as men (humanizing), or that women have less uniquely human characteristics than men (dehumanizing). In doing so it was possible to determine whether dehumanizing attitudes towards women were malleable to change for individuals high in psychopathic traits, and whether a change in dehumanizing attitudes also resulted in a change in sexist and violent attitudes towards women (see Figure 1-8).
Bandura (2002) highlighted the importance of humanization in counteracting cruel conduct. He emphasized that although research often focused on how dehumanization can result in individuals behaving in heinous ways, the consumers of research should take note of instances where individuals refused to cause harm to others who had been humanized at some point (Bandura, 2002). If Studies 1 and 2 find significant indirect effects from psychopathy to sexist and violent attitudes towards women through dehumanization then it could suggest that dehumanization may be an important mechanism to target for change. These results would suggest that by inducing changes in dehumanization it may be possible to also change levels of sexist and violent attitudes towards women. Indeed, research conducted in the field of social psychology has indicated that dehumanizing attitudes are malleable, suggesting that humanizing members of an outgroup could potentially decrease prejudiced attitudes and aggression (Bandura et al., 1975; Costello & Hodson, 2010; 2014).
Research has shown that humanization can be effective in lowering negative attitudes and behaviours towards an outgroup. In the study (discussed previously) conducted by Bandura and colleagues (1975) where participants overheard descriptions of subordinates and then administered shocks to them, researchers found that the lowest shock intensity was administered in the condition where the subordinates were described in humanizing ways. This is interesting because the humanization condition was associated with even lower levels of shock intensity than the neutral condition where no description was heard. Essentially, in the neutral condition, without any additional information regarding the subordinates, shock intensity levels were naturally higher than in the condition where subordinates were humanized. This suggests that not only does humanization result in lower levels of aggression when compared to a dehumanized group, it also suggests that by humanizing a group of strangers it is possible to lower levels of naturally occurring aggression towards unknown individuals.

Pereira, Vala, and Leyens (2009) found that by humanizing an outgroup they were able to successfully lower levels of prejudice against that group as well. The researchers had participants read a fictitious news article describing fake research which measured the emotional expression of their ingroup and an outgroup. In the humanized condition participants read that both their ingroup and their outgroup expressed more uniquely human emotions than they expressed non-uniquely human emotions. In the dehumanized condition participants read that their outgroup expressed more non-uniquely human emotions than uniquely-human emotions, and their ingroup showed the opposite pattern of expression. In the neutral condition participants read an unrelated news article. Results indicated that discrimination towards the outgroup and perceived symbolic threat (symbolic threat refers to a threat to one’s identity or culture) were lowest in the humanized condition and highest in the dehumanized condition.
There is also a body of research which investigates the role of a perceived animal-human divide in dehumanization (Bastian et al., 2012; Costello & Hodson, 2010, 2014). Researchers argue that dehumanization (especially animalistic dehumanization) may stem from a disregard of non-human animals (Costello & Hodson, 2010). Specifically, if animals are deemed as lesser beings who are deserving of mistreatment and exploitation, then likening outgroups to animals would suggest that they are also deserving of mistreatment and exploitation. As such, if an animal-human divide did not exist, or at the very least if the distance was lessened, then dehumanization should be undermined all together (Costello & Hodson, 2010). Research from this branch of dehumanization has found that by manipulating the human-animal divide it is possible to lower levels of dehumanization (Bastian et al., 2012; Costello & Hodson, 2010, 2014). Costello and Hodson (2010), for example found that by introducing information to participants which suggested similarities between animals and humans they were able to create higher levels of humanization of immigrants, more recategorization of immigrants into a Canadian Residency based ingroup, and more positive attitudes towards immigrants compared to a condition where animal-human differences were emphasized. Costello and Hodson (2010) also tested a mediational model and found that in the condition which emphasized animal human similarities (compared to conditions which emphasized human-animal similarities, or the animal-human divide) there was increased immigrant humanization, which predicted more immigrant recategorization and empathy, which in-turn predicted lower levels of immigrant prejudice.

Similarly, Bastian and colleagues (2012) found that by framing the similarities between animals and humans they were able to increase concern for animal welfare. The researchers also found that these effects extended to an increased concern for human outgroups, they argue that this works as a function of expanding the boundaries of participants moral inclusiveness. Finally,
Costello and Hodson (2014) had children view videos highlighting similarities between animals and humans and were able to successfully narrow the human-animal divide. Though these results are promising, this manipulation did not extend to, or significantly alter, outgroup dehumanization or prejudice. Despite this, it does suggest that even in child participants dehumanizing attitudes are malleable to change.

Taken together this evidence suggests that attempts to humanize an outgroup can have far reaching effects on attitudes towards that group. If psychopathy shares a significant and positive indirect relationship with sexist and violent attitudes towards women via dehumanization, then a viable mechanism to target for change may be dehumanization. Furthermore, if levels of dehumanization are lowered, lower levels of sexist and violent attitudes towards women may also occur.

**The treatment of psychopathic traits.** Studies examining new techniques designed to mitigate some of the antisocial aspects of psychopathy are a very important addition to the psychopathy literature. Humanization is a cognitive process that provides participants with information which either counteracts or reinforces their ideas regarding the humanness of a person or group of people. This technique usually involves providing participants with information regarding whether or not that person or group of people possesses the same amount of uniquely human qualities that they themselves possess. Hare (1996) suggested that cognitive and not emotion-based treatments are the best approach to treating psychopathic offenders, as such humanization may be a promising technique. Providing individuals high in psychopathic traits with information that explains that their assumptions about women are unfounded could be effective in dampening their dehumanizing attitudes towards women. Though Hare (1996) was referring to clinical levels of psychopathy, and the current work did not employ a clinical
sample, examining the effect of humanization on a non-clinical sample will be an important first step in the literature. If the current work can show that it is possible to lower levels of dehumanization and also find lower levels of sexist and violent attitudes towards women, it may suggest that such findings could be generalized to a more clinically psychopathic population. This would be of tremendous importance because psychopathy is a significant risk factor for violence, both physical (Blais et al., 2014) and sexual (Hanson & Morton-Bourgon, 2005; Hawes et al., 2013).

Despite them being at a higher risk of offending, relatively little research has been conducted on the treatment of psychopathic offenders (Polaschek & Skeem, 2018). Salekin (2002) suggests that the reason behind this lack of research is the false, but widely spread, belief that psychopathy simply cannot be treated. This is confounded by anecdotal evidence which suggests that psychopathic individuals are able to successfully convince officials that they are rehabilitated, even when they are not (Hare, 1996). This is not surprising as studies have shown that psychopathic individuals are adept at deception and faking (Book et al., 2015; Lyons, Healy, & Bruno, 2006). The notion that psychopaths are inherently difficult to treat is not a novel one, Cleckley (1941) observed that even after years of treatment psychopathic offenders appeared to not improve. Yet based on the Risk-Need-Responsivity method of treatment (RNR; Andrews & Bonta, 2010; Bonta & Andrews, 2016), the highest importance should be placed on treating these offenders. The first step of the RNR method is the assessment of risk, this step demands that treatment professionals should apply treatment to those highest in risk because they pose the greatest threat to society. The Need component of the RNR method suggests that focus should be placed on criminogenic needs, or risk factors that are known to predict recidivism such as criminal attitudes, impulsivity, and substance abuse. Finally, Responsivity urges clinicians to
deliver treatment so that offender engagement is maximized. If an offender is difficult or not engaging, it is important that clinicians and researchers do not come to the conclusion that these offenders are not treatable. Instead, clinicians and researchers are urged to work with the characteristics which make these offenders difficult to treat. It is important to note that treatment models which closely adhere to the RNR principles do see changes in offender behaviour (Andrews & Bonta, 2010).

Polaschek and Skeem (2018) review how research is crucial to the treatment of psychopathic offenders. They state that psychopathic offenders are inherently high risk for violent and sexual reoffending, and as such represent a high need offender group. Psychopathic offenders are notoriously difficult to treat, they tend to be combative (Chakhssi, de Ruiter, & Bernstein, 2010), drop out at higher rates (Olver & Wong, 2009,2011), they tend to rate the climate of treatment as being more negative, and find it difficult to bond with treatment staff (Harkins, Beech, & Thornton, 2013). As such, based on the RNR method, instead of being resigned to the idea that psychopathic offenders are untreatable, researchers should be actively searching for treatment options for these difficult-to-treat high-need offenders.

Another issue in the treatment of psychopathy is the focus on treating outcomes. Because psychopathy is associated with antisocial outcomes it is often thought that research should focus solely on the effect that treatment has on criminality and violence (Polaschek & Skeem, 2018). Yet, another important question is: can the traits of psychopathy itself be mitigated through the treatment process? Targeting the characteristics of psychopathy would be more globally beneficial to both the psychopathic individual and society in general. Instead of treatment focusing on preventing one or some of the outcomes of psychopathy, addressing psychopathic
traits would target the roots of the problem which could potentially prevent a wider range of antisocial outcomes (Polaschek & Skeem, 2018).

Unfortunately, research examining the treatment of psychopathy in psychopathic adults is scarce (Polaschek & Skeem, 2018). One study that demonstrated some success focused on a core mechanism in psychopathy, often referred to as the response-modulation hypothesis (Gorenstein, & Newman, 1980). This hypothesis refers to the idea that psychopathic offenders have a diminished ability to focus on emotional stimuli that is peripheral to their immediate goals (for a review see Newman & Baskin-Sommers, 2011). Baskin-Sommers, Curtin, and Newman (2015) implemented a six-week long treatment using a computer training program to teach offenders to focus on peripheral cues. Following treatment psychopathic offender showed improvement on not only the tasks they trained on, but also on untrained tasks.

Though it has been suggested that the most efficient means of treating psychopathic offenders is by targeting psychopathy directly, other research targeting more specific antisocial outcomes of psychopathy have also demonstrated some success. Indeed, some treatment research has found success in lowering violent outcomes (Polaschek, 2011; Skeem, Monahan, & Mulvey, 2002), general offending (Polaschek, 2011), and other risk factors predictive of recidivism (Lewis, Olver, & Wong, 2013; Olver & Wong, 2009). Though it should be noted that other research has been less conclusive (Hobson, Shine, & Roberts, 2000; Ogloff, Wong, & Greenwood, 1990; Wong, Gordon, Gu, Lewis, & Olver, 2012). For example, in a sample of high-risk offenders who either did or did not complete treatment, no difference was found in recidivism rates, with both groups offending relatively quickly (Wong et al, 2012). Though it should be noted that the treated group was found to have offended in less severe ways.
Even more distressingly, Rice, Harris, and Comier (1992) found evidence that certain treatments actually made psychopathic offenders recidivate more quickly than non-treated offenders. Though Polaschek and Skeem (2018) pointed out that this particular study employed some bizarre and unethical treatment (involving nudity, wall-mounted feeding tubes, and substances such as alcohol and LSD).

What is clear from the treatment literature is that this area of psychopathy research is vastly mixed and that there is a great need for new research examining potential avenues for treatment for these high-risk offenders (Polaschek & Daly, 2013). As such any veins of research which can offer new possibilities regarding prosocial changes in individuals higher in psychopathic traits are a valuable addition to the literature.

**Study 3**

Based on the clear need for new treatment options the current work was created to be the first step in a body of literature designed to target dehumanization as a criminogenic need. Before a treatment program can be developed it is first important to demonstrate that dehumanization can be malleable in individuals high in psychopathic traits. The current work employed a non-clinical sample, as such it cannot be implemented as a treatment directly, but will be instrumental in demonstrating effectiveness for future studies conducted in prison populations.

Study 3 implemented a humanization paradigm which has been shown to lower levels of dehumanization and has also resulted in changes regarding negative attitudes towards the dehumanized group (Pereira et al., 2009). An examination of the effects of dehumanization on attitudes is commonplace in the field of social psychology but has yet to be examined fully in relation to antisocial individual difference factors. As such, the current work attempted to
determine if humanizing women would be effective in lowering dehumanization for individuals high in psychopathic traits. Furthermore, the current work examined whether that change in dehumanization would also result in lower levels of sexist and violent attitudes towards women (see Figure 1-9).

Study 3 implemented the same measures of psychopathy, dehumanization, and sexist and violent attitudes towards women as was employed in Study 2. Study 3 also included a manipulation aimed at lowering levels of dehumanization. The manipulation technique employed in Study 3 was designed to be as similar as possible to the technique employed by Pereira and colleagues (2009) who presented information to participants regarding the emotional expression (uniquely human versus non-uniquely human) of their ingroup and outgroup. Though, unlike Pereira and colleagues (2009), the current work employed sex as the defining characteristic of the ingroup (men) and outgroup (women) investigated. Using this technique, it was hoped that the current work would be able to elucidate whether or not this social psychological technique would be effective on individuals with psychopathic traits.
Figure 1-9. Indirect path model to be tested in Study 3. Covariances and error terms will be tested but are not presented for ease of presentation and clarity. Condition variables represent a contrast (humanized vs. neutral, dehumanized vs. neutral).

**Current Program of Research**

This program of research brings together personality and social psychology. It investigates the associations between psychopathy (a personality construct) and sexism and dehumanization (social psychological constructs). Combining two fields of research can provide a depth of understanding that has yet to be accomplished in the field of forensic psychology. Studies 1 and 2 were designed to establish the indirect association between psychopathy and sexist and violent attitudes towards women through dehumanization. Study 2 was created to build off of Study 1 as it moved past self-report means of assessing violent attitudes towards women and included a behavioural measure of tolerance of sexual coercion (a date rape decision latency measure) (Marx & Gross, 1995). Study 3 was designed to move past correlational research designs and employed a more experimental design, this allowed for the examination of
the effects of humanization on levels of dehumanization and sexist and violent attitudes towards women.

Together this program of research fills an important gap in the literature, an understanding of the mechanisms that underlie the association between psychopathy and sexist and violent attitudes towards women. Given that psychopathy has such a strong and consistent association with not only negative attitudes towards women, but the actual perpetration of harm against women, it is paramount that research investigate the mechanisms which underpin these associations. The current work was designed to undertake this challenge.
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CHAPTER 2

Studies 1 and 2²

Theodor (Ted) Bundy, the prolific serial killer, often referred to his female victims as “cargo” or “damaged goods” (Simon, 1999, p.23). He discussed being driven to possess women as one would be driven to “possess a potted plant, a painting, or a Porsche” (Bearak, 1989, p.2). This dehumanizing attitude culminated in the murder, rape, and mutilation of as many as 50 female victims (Bearak, 1989). Dr. Hervey Cleckley, a seminal psychopathy researcher, considered Bundy to be a self-absorbed psychopath (Ramsland, 2013). Though this example is anecdotal, it could suggest that dehumanizing attitudes may help to explain how psychopaths treat women. Consequently, we were interested in examining the role dehumanization plays in the association between psychopathy and negative attitudes towards women. The current work was focused on replicating previous findings which suggested that psychopathy is positively related to negative and violent attitudes towards women, and then determining if dehumanization may be an explanatory pathway which connects psychopathy to these attitudes (Study 1). The current work then examined if these findings were evident when examining behaviour, rather than self-reported attitudes (Study 2).

Psychopathy and Negative Attitudes Towards Women

Psychopathy is an antisocial personality type often characterized as having two higher-order factors (Hare & Neumann, 2008). Factor 1 is comprised of characteristics reflecting interpersonal manipulation and shallow affect: glibness, charm, deception, manipulative tendencies, shallow affect, a lack of empathy and remorse, and the inability to accept

responsibility. Factor 2 is characterized by antisocial behaviour and an erratic lifestyle: stimulation seeking, impulsivity, irresponsibility, a parasitic lifestyle, a lack of realistic goals, poor behavioural controls, early behavioural problems, juvenile delinquency, revocation of conditional release, and criminal versatility. Psychopathy can be diagnosed at a clinical level in offender samples using tools such as the Psychopathy Checklist-Revised (PCL-R; Hare 1991; 2003), but it is also commonly studied in non-criminal populations as an individual difference variable (Williams, Paulhus, & Hare, 2007). As mentioned previously, psychopathy is consistently associated with violent attitudes towards women, such as the endorsement of rape myths (false and stereotypical beliefs regarding the culpability of rape victims and the innocence of the perpetrator; Burt, 1980) (Debowska, Boduszek, Dhingra, Kola, & Meller-Prunska, 2015; Mouilso & Calhoun, 2013) and negative attitudes about rape victims (Watts, Bowes, Latzman, & Lilienfeld, 2017). What has not been established in the literature is the potential role dehumanizing attitudes may play in these associations.

**Dehumanization and Negative Attitude Towards Women**

Hodson, MacInnis, and Costello (2014) defined dehumanization as “the perception and/or belief that another person (or group) is relatively less human than the self (or ingroup)” (p.87). Indeed, dehumanization is often measured by examining how qualities perceived to be either uniquely human or non-uniquely human are attributed to members of both in-groups and out-groups. Individuals will often fail to attribute uniquely human qualities to members of an out-group, while attributing more uniquely human qualities to members of their in-group (Haslam, 2006).

Different forms of dehumanization have been examined in the literature, but they can often be categorized as belonging to one of three over-arching categories; Animalistic,
Mechanistic, and Mind Perception dehumanization (Haslam, 2006; Haslam & Loughnan, 2014; Haslam, Loughnan, Reynolds, & Wilson, 2007). Animalistic dehumanization involves a contrast between animals and humans, and it often involves the ways in which people ascribe uniquely-human and non-uniquely-human characteristics to others (Haslam, 2006; Haslam et al., 2007). This form of dehumanization is characterized by the belief that certain people are uncultured, childlike, coarse, irrational, amoral, and lacking in self-control. Mechanistic dehumanization involves a contrast between humans and machines or automatons. Unlike animalistic dehumanization which focuses on the attribution of uniquely-human qualities, mechanistic dehumanization focuses on human nature (Haslam, 2006; Haslam et al., 2007). Characteristics that describe human nature do not necessarily involve qualities that differentiate humans from animals, rather they involve qualities that are fundamental or central to humans. These characteristics embody human nature and they are closely tied to emotions; as such, mechanistic dehumanization involves seeing others as inert, cold, passive, rigid, superficial, or as a collection of parts (Haslam, 2006; Haslam et al., 2007). Animalistic and mechanistic dehumanization are generally thought of as being two distinct constructs; however, objectification presents a unique case, such that this form of dehumanization can manifest as both Animalistic and Mechanistic (Haslam et al., 2007). In the context of sexual behaviour, a woman could be objectified in terms of the belief that she is a slave to her hormones or sex drive (Animalistic) or reduced to her parts and seen as an inert object whose worth is calculated by its ability to be utilized by others (Mechanistic). A third type of dehumanization was outlined by Haslam and Loughnan (2014) it was referred to as Mind Perception dehumanization, which involves denying the sense of mind or mental states of others (see Kozak et al., 2006).
Though the body of literature is not large, research has established that dehumanization is associated with negative and violent attitudes towards women. Specifically, dehumanization is positively associated with sexism (Pacilli et al., 2017; Viki & Abrams, 2003) the acceptance of rape myths (Custers & McNallie, 2017; Papp & Erchull, 2017), rape proclivity (the propensity toward sexual aggression) (Galdi et al., 2014; Rudman & Mescher, 2012), as well as general physical aggression towards women (Vasquez et al., 2018). Furthermore, dehumanization (specifically objectification) is associated with negative attitudes towards the female victims of rape (Bernard et al., 2015; Loughnan et al., 2013) and the victims of intimate partner violence (Pacilli et al., 2017). Essentially, when a female victim is objectified participants attribute more blame to her, express less concern for her (Loughnan et al., 2010), attribute less blame to her aggressor (Bernard et al., 2015), are less willing to help her, view her as less moral, and ascribe to her less psychological and physiological pain (Pacilli et al., 2017).

**Psychopathic Traits and Dehumanization**

Research has established that psychopathic traits are associated with violent attitudes towards women, it is also evident that the dehumanization of women is associated with sexist and violent attitudes towards women. What has yet to be investigated is any role dehumanization may play in the association between psychopathic traits and violent attitudes towards women. Although the conceptualization of psychopathy includes characteristics such as a grandiose sense of self-worth, suggesting that they value their own worth above others, research does suggest that they do tend to treat individual groups of people (of different races and sexual orientations) worse than others (Hodson, Hogg, & MacInnis, 2009; Jones, 2013; Parrot & Zeichner, 2006). This suggests that although individuals high in psychopathic traits may tend to value themselves above all, they may dehumanize specific groups more than others.
The current work was focused on filling this gap in the literature by investigating the possibility that dehumanization is a mechanism that may explain the association between psychopathic traits and sexist and violent attitudes towards women. A link between psychopathic traits and dehumanization has not been investigated in the literature, but it would not be unexpected. Bandura (1999) suggested that empathy develops into a tendency to humanize others. As children develop empathy they are able to experience the joys and pains of others, in doing so they see that others experience the same feelings and pains that they themselves experience, thus humanizing them. This tendency to see others as human, through an empathetic response, facilitates cooperative behaviour, such that understanding that others are as human as oneself and being able to experience their pains and emotions would mean that inflicting undue pain on others would cause self-condemnation and discomfort (Bandura, 1999). Psychopathic traits are characterized by a lack of empathy (Hare, 1996), and as such psychopaths may never see others as being as human as they are or as experiencing the same feelings and pains that they do. Consequently, individuals high in psychopathic traits may be predisposed to dehumanizing others, and may never develop a moral sense of responsibility to protect other human beings from the pains that they themselves may have experienced.

It has also been suggested that dehumanization represents a delegitimizing belief (Bar-Tal, 2000; see also Opotow, 1990). A delegitimizing belief is a negative appraisal of a person (or group of people), which is accompanied by the belief that the delegitimized persons do not deserve humane treatment, and indeed that they should be treated negatively. As such, the presence of a delegitimizing belief may facilitate inhumane treatment of the delegitimized group. Consistent with this, Hodson and MacInnis (2016) argue that delegitimization can rule out targets as being deserving of moral concern. They suggest that dehumanization and other forms
of delegitimization can facilitate differential treatment toward the target group, such as trivializing their rights and decreasing concerns regarding that group’s protection (Hodson & MacInnis, 2016). Consequently, if individuals high in psychopathic traits are predisposed to engage in the dehumanization of women, it may suggest that this dehumanization is accompanied by the belief that women should be treated in inhumane and negative ways.

**The Current Work**

Research to date has not examined whether sub-clinical psychopathy is associated with the dehumanization of women, and any indirect role dehumanization may play in the association between psychopathic traits and negative and violent attitudes towards women. We conducted two studies to address this gap in the literature. Study 1 investigated whether psychopathic traits were indirectly associated with measures of sexist and violent attitudes towards women through dehumanization. As the association between psychopathic traits and dehumanization has not been established in the literature, Study 1 employed multiple forms of dehumanization to determine which form of dehumanization might have indirectly linked psychopathic traits to sexist and violent attitudes towards women. Study 2 included the same measures of sub-clinical psychopathy, dehumanization and sexism, but a date rape analogue measure of violent attitudes towards women was added to build off of Study 1 and increase the generalizability of the findings of Study 1.

We examined Factor 1 and 2 of psychopathy separately in each of our proposed models. This decision is based on the evidence that the two factors of psychopathy can be differently related to constructs within their nomologic network (Neal & Sellbom, 2012). For example, although psychopathy in general is associated with both instrumental and reactive violence, meta-analytic evidence suggests that the strength of association varies by factor (Blais,
Solodukhin, & Forth, 2014). Aspects of Factor 1 share a stronger association with instrumental violence than the other characteristics of psychopathy. Conversely, aspects of Factor 2 share the strongest association with reactive violence (Blais et al., 2014). Because the associations between the Factors of psychopathy and dehumanization are unknown it is unclear whether they will relate to the same dehumanization constructs, as such both Factors of psychopathy were entered in the path models tested.

**Study 1 hypotheses.** We expected that sub-clinical psychopathy (both Factor 1 and Factor 2) would be:

1) Positively and directly associated with all of the measures of dehumanization, sexism, and violent attitudes towards women.

2) Positively and indirectly related to our measures of violent and sexist attitudes towards women through dehumanization.

Specifically, we predicted that higher psychopathy scores would be associated with higher dehumanization scores, which, in turn, would be associated with more sexist and violent attitudes towards women. As the association between psychopathy and dehumanization had not been clarified in the literature we did not have any specific hypotheses regarding the different forms of dehumanization.

**Study 1 Method**

**Participants**

Two hundred and twenty-seven men were recruited from the undergraduate subject pool at a Canadian university, 265 men were recruited from Amazon’s Mechanical Turk (Mturk) (a popular means of quickly recruiting community samples in social science (Bohannon, 2016), and 22 men were recruited from the website [www.kijiji.ca](http://www.kijiji.ca) (which advertises opportunities for
volunteers) for a total of \( N = 514 \). The sample collected from Mturk were compensated with $2.50 USD, participants from the university sample were given course credit, and participation for the www.kijiji.ca sample was entirely voluntary. All participants provided informed consent results according to Research Ethics Board approved protocols. The sample was predominately Caucasian (53.7%) with a mean age of 29.31 (\( SD = 11.36 \)). All measures were completed online through the website www.qualtrics.com.

**Materials**

A copy of all the materials employed in the current project can be found in Appendix A.

**Demographics.** Participants filled out a simple demographics questionnaire where they provided information about their race (coded as White, Black, Latino, Asian, or other) and age (in years).

**Sub-clinical Psychopathy.** To assess psychopathy The Self-Report Psychopathy Scale: Version IV was employed (Paulhus, Neumann, & Hare, 2017). The SRP-IV is a reliable and well validated measure of sub-clinical psychopathic traits (Paulhus et al., 2017). The SRP-IV is a 64-item scale which measures the two factors of psychopathy. All indices were calculated as sums. The reliability of the Factor 1 and Factor 2 subscales in our sample were \( \alpha = .90 \) & .89 respectively. Responses on the SRP-IV are on a five-point Likert scale (1 = Disagree Strongly and 5 = Agree Strongly) and includes items such as “I have cheated on a school test” and “I have shoplifted.”

**Dehumanization.** Dehumanization was assessed in four different ways. Trait and emotional dehumanization were assessed using the method employed by Costello and Hodson (2010). Participants rated the extent to which both uniquely human (conscientiousness and openness to experience) and non-uniquely human (neuroticism and agreeableness) personality
traits, and non-uniquely human emotions (joy, fear, excitement, etc.) and uniquely human emotions (guilt, admiration, compassion, etc.) applied to both men and women. Consequently, these are measures of animalistic dehumanization. Participants rated the extent to which they agree with statements such as “Men are Extraverted, enthusiastic” and “Women experience Joy” on a 7-point Likert scale where 1 = Disagree Strongly and 7 = Agree Strongly. To compute dehumanization scores the items assessing the attribution of uniquely-human qualities to women were reversed scored, so that higher scores reflected lower levels of uniquely human qualities attributed to women, and then summed. In our sample the emotional dehumanization measure was very reliable (α = .91), though the personality trait dehumanization measure had fairly low reliability (α = .51).

To assess mind perception dehumanization a portion of the Mental State Attribution (MSA) task was employed (Haslam, Kashima, Loughnan, Junqi, & Suitner, 2008). Participants responded to the question “How much “sense of mind” do women have?” on a 7-point Likert scale (1 = Not Much Mind at All, 7 = A Lot of Mind).

Finally, the objectification of women (a mechanistic form of dehumanization) was assessed using the Men’s Objectification of Women Scale (Zolot, 2003). This is a 25-item scale which assesses objectifying behaviours and attitudes towards women on a five-point Likert scale (1= Strongly Disagree to 5= Strongly Agree) (α = .90 in our sample). This scale includes items such as “I frequently give women a rating based on attractiveness” and “I like it when a thin woman wears tight clothing.”

**Sexist and Violent Attitudes Towards Women.** The Ambivalent Sexism Inventory (Glick & Fiske, 1996) was employed to assess Hostile sexism. The Ambivalent Sexism Inventory measures both benevolent and hostile sexism (Glick & Fiske, 1996). Benevolent
sexism refers to the endorsement of subjectively positive, but restricted and stereotypical beliefs about women. Conversely, hostile sexism refers to the typical antipathetic feelings towards women that have been traditionally referred to as sexism. The current work only employed the 11-item hostile sexism subscale because of its focus on antipathic feelings towards women, and the assessment of women as being inferior to men. This measure was found to be highly reliable in our sample (α = .91).

To assess attitudes supportive of violence against women we implemented the technique employed by Wright and Tokunaga (2016), which involved having the participants indicate how strongly they agreed with five statements, including “Being roughed up is sexually stimulating to many women” on a five-point Likert Scale (1 = Strongly Disagree to 7 = Strongly Agree). This measure demonstrated adequate reliability in our sample (α = .87).

Finally, to assess the endorsement of rape myths the current work employed the Illinois Rape Myth Acceptance Scale (IRMA: Payne, Lonsway, & Fitzgerald, 1999; McMahon & Farmer, 2011). The IRMA is a 22-item measure which assesses the extent to which participants endorse false or stereotypical beliefs about rape, including beliefs that the victim was responsible for their own rape, or lied about being raped, beliefs that the perpetrator did not mean to do it, or that the rape was not truly a rape at all. The endorsement of rape myths was measured using statements such as “If a guy is drunk, he might rape someone unintentionally” on a 5-point Likert scale (1 = Strongly Disagree to 5 = Strongly Agree). The IRMA was a reliable measure in our sample (α = .95).

**Study 1 Results and Discussion**

To test our hypotheses a path model was conducted using Mplus 7.2 statistical software (Muthen & Muthen, 2013) using ML-R estimation (see Figure 2-1). We made the decision to
employ ML-R estimation because most of the measures employed in Study 1 (excluding the psychopathy and rape myth acceptance measures) did not meet the assumptions of univariate normality and ML-R estimation is robust against such violations. The primary focus of the analysis was the decomposition of the total effect of psychopathy on sexist and violent attitudes into direct and indirect effects via dehumanization. Indirect effects were tested using the biased-corrected bootstrap method (which has demonstrated an adequate balance between Type 1 and Type 2 errors) (MacKinnon, Lockwood, & Williams, 2004). Ten thousand bootstrap samples and 95% bias-corrected confidence intervals (CIs) were employed to determine the significance levels of the indirect effects. We examined demographic variables to determine if they were significantly associated with the other variables in the model; if the variable was significantly associated with the other variables in the model it was included in the final model as an independent variable predicting all dehumanization and outcome variables. Age, race, and sample type (student, Mturk, or Kijiji) were all tested (age was tested using a correlational analysis, and the categorical variables were tested using ANOVA’s). Age was negatively associated with the variables in our model, and scores on the variables in our model did vary as a function of sample type as such both were included in the final analyses as control variables. Of note, fit indices were uninformative as the path model was fully saturated (i.e., df = 0).

At the bivariate level Factor 1 and Factor 2 of psychopathy were significantly and positively related to all dehumanization variables and dependent variables (see Table 2-1). Generally, the model accounted for 48.9% of the variability in hostile sexism, 40.1% of the variability in rape myth acceptance, and 47.1% of the variability in attitudes supportive of violence against women (see Figure 2-1).
**Table 1-1**

*Study 1 Descriptive Statistics and Bivariate Correlations*

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<th>6</th>
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<td>.12*</td>
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*Note. Factor 1 = Factor 1 psychopathy, Factor 2 = Factor 2 psychopathy, Dehuman-P = personality dehumanization, Dehuman-E = emotional dehumanization, Dehuman-SM = sense of mind dehumanization, Dehuman-O = objectification dehumanization, Hostile = hostile sexism, RMA = rape myth acceptance, ASVAW = attitudes supportive of violence against women. * p < .05, ** p < .01, *** p < .001*

**Figure 2-3.** Path Model and direct effects results for Study 1. Solid lines indicate significant path coefficients, perforated lines are indicative of non-significant path coefficients. IRMA = the Illinois Rape Myth Acceptance Scale. Standardized coefficients are represented below the path they correspond to.
As the bivariate results were in the desired direction we then tested the model represented in Figure 2-1. With the effects of all variables in the model accounted for, both direct paths to hostile sexism were significant (positively for Factor 1: $B = .16, SE = .03, 95\% CI [.10, .23]$ and negatively for Factor 2: $B = -.12, SE = .03, 95\% CI [-.18, -.06]$) (see Table 2-2). Factor 1 was also positively and indirectly related to hostile sexism through sense of mind ($B = .03, SE = .01, 95\% CI [.01, .05]$) and objectification dehumanization ($B = .12, SE = .03, 95\% CI [.07, .17]$). Factor 2 was positively and indirectly related to hostile sexism through emotional ($B = .02, SE = .01, 95\% CI [.01, .04]$) and objectification dehumanization ($B = .06, SE = .02, 95\% CI [.02, .10]$).

Factor 1 was positively and directly related to rape myth acceptance ($B = .11, SE = .05, 95\% CI [.02, .21]$) (see Table 2-2). Factor 1 was also positively and indirectly related to rape myth acceptance through objectification dehumanization ($B = .14, SE = .03, 95\% CI [.09, .21]$) (see Table 2-3). Factor 2 was not directly related to rape myth acceptance after accounting for the other variables in the model (see Table 2-2). However, it was positively and indirectly related to rape myth acceptance through emotional ($B = .05, SE = .02, 95\% CI [.02, .09]$) and objectification dehumanization ($B = .07, SE = .03, 95\% CI [.02, .11]$) (see Table 2-3).

Finally, after accounting for the other variables in the model, Factor 2 was positively and directly associated with attitudes supportive of violence against women ($B = .05, SE = .02, 95\% CI [.01, .08]$) (see Table 2-2) and was also positively and indirectly related to attitudes supportive of violence against women through emotional ($B = .02, SE = .02, 95\% CI [.01, .04]$) and objectification dehumanization ($B = .03, SE = .01, 95\% CI [.01, .05]$) (see Table 2-3). Factor 1 was not directly related to attitudes supportive of violence against women after accounting for the other variables in the model (see Table 2-2). However, it was positively and indirectly
associated with attitudes supportive of violence against women through objectification
dehumanization ($B = .05, SE = .01, 95\% CI [0.04, 0.08]$) (see Table 2-3). This indicates that once
all the variables in the model were accounted for, the direct associations between Factor 2 and
rape myth acceptance, and Factor 1 and attitudes supportive of violence against women were no
longer significant; indeed, these associations were completely indirect.

It should be noted that suppression was evident in the association between Factor 2 and
hostile sexism. At the bivariate level the association between these two variables was statistically
significant and positive. Yet, when the effects of the other variables were accounted for in the
model the direct association between Factor 2 and hostile sexism was statistically significant and
negative. To investigate the source of the suppression, variables were removed from the model
one at a time and the path from Factor 2 to hostile sexism was investigated. This process
revealed that it was Factor 1 which was acting as the suppressor variable in this situation. Indeed,
the tendency of Factor 1 and Factor 2 to act as suppressor variables of one another is not
uncommon (Lynam, Hoyle, & Newman, 2006). However, it should be noted that the indirect
paths between Factor 2 and hostile sexism through emotional and objectification dehumanization
were consistently positive.
### Table 2-2

*Study 1 Direct Effects of Negative and Violent Attitudes Towards Women on Psychopathy and Dehumanization*

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<th>SE</th>
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*Note. Factor 1 = Factor 1 psychopathy, Factor 2 = Factor 2 psychopathy, Dehuman-P = personality dehumanization, Dehuman-E = emotional dehumanization, Dehuman-SM = sense of mind dehumanization, Dehuman-O = objectification dehumanization, IRMA = the Illinois Rape Myth Acceptance Scale, ASVAW = attitudes supportive of violence against women. *p < .05, **p < .01, ***p < .001*
### Table 2-3

*Study 1 Indirect Effects from Psychopathy to Negative and Violent Attitudes Towards Women Variables*

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*Note. Factor 1 = Factor 1 psychopathy, Factor 2 = Factor 2 psychopathy, Dehuman-P = personality dehumanization, Dehuman-E = emotional dehumanization, Dehuman-SM = sense of mind dehumanization, Dehuman-O = objectification dehumanization, IRMA = the Illinois Rape Myth Acceptance Scale, ASVAW = attitudes supportive of violence against women. * p < .05, ** p < .01, *** p < .001*

**Summary**

Regarding our hypotheses, we found mixed support. Support was not found for the predicted direct paths between Factor 1 and attitudes supportive of violence against women, or the direct path between Factor 2 and rape myth support, however all other hypotheses were
supported. We erred on the side of caution and predicted both indirect and direct effects because we were not able to determine from previous literature the strength of the indirect association. Results suggested that dehumanization does represent a significant indirect pathway linking psychopathic traits to sexist and violent attitudes towards women. More importantly, after accounting for the variables in the model our results suggest that the association was entirely indirect for the association between Factor 1 and attitudes supportive of violence towards women, and Factor 2 and rape myth acceptance. Taken together, this study provided evidence that dehumanization may represent a mechanism that can explain the association between psychopathic traits and violent and sexist attitudes towards women.

**Study 2**

Study 2 was designed to replicate the findings regarding the direct and indirect associations between Factors 1 and 2 of sub-clinical psychopathy and hostile sexism. Study 2 was also meant to build on the results of Study 1 in that Study 1 was based entirely on self-report measures, and Study 2 included a behavioural measure of violent attitudes towards women. This is paramount because evidence suggest that individuals may not have full insight into their own attitudes, biases, and stereotypes (Banaji, Hardin, & Rothman, 1993). This implicit lack of awareness has been found in men regarding their attitudes and biases towards women (Banaji et al., 1993). As such, using a more behavioural measure (a date rape analogue) may allow us to tap into attitudes that are not consciously available to the men in our sample. Additionally, there is the problem of socially-desirable responding, such that participants may be responding in such a way as to maximize social desirability (Fisher, 1993). This could be especially pronounced because some of the behaviours and attitudes examined in the current work are extremely sexist and violent. However, it is important to note that there is meta-analytic evidence to suggest that
individuals high in psychopathic traits are not prone to positive impression management (Ray et al., 2013). Employing a date rape analogue measure of violent attitudes towards women may allow us to examine more directly how men engage with women. Therefore, Study 2 employed a date rape decision latency measure which had our male participants listen to an auditory rendition of a coercive sexual encounter, after listening participants indicated when they would have ended the interaction. This measure provided Study 2 with a more behavioural means of assessing violent attitudes and intentions towards women.

**Study 2 Hypotheses**

Consistent with Study 1, we predicted that both factors of psychopathy would be:

1) Significantly, positively, and directly associated with sexism.

2) Positively and indirectly related to hostile sexism through dehumanization. Specifically, as was found in Study 1, after the effects of the other variables have been accounted for in the model we expected both direct and indirect associations.

   a. Consistent with Study 1, we predicted that Factor 1 would be indirectly and positively associated with hostile sexism through sense of mind dehumanization and objectification dehumanization.

   b. Furthermore that, Factor 2 would be indirectly and positively related through emotional dehumanization and objectification dehumanization.

Both the date rape decision latency measure employed in Study 2 and the endorsement of rape myth measure in Study 1 measured attitudes and behaviour regarding rape, as such we predicted the same pattern of results for the date rape decision latency measure as was found for the endorsement of rape myths in Study 1.
3) Specifically, we expected that Factor 1 would be positively and directly related to date rape decision latency
   a. Factor 1 would also be indirectly and positively related to date rape latency through objectification dehumanization.
4) Factor 2 would be indirectly and positively related to date rape latency through emotional and objectification dehumanization. We did not predict a direct path, because Factor 2 was not directly related to rape myth acceptance in Study 1.

**Method Study 2**

**Participants**

Twenty-four male undergraduate students and 178 men from Amazon’s Mechanical Turk (Mturk) participated in Study 2, for a total of 202 participants. The sample collected from Mturk were compensated with $2.50 USD, and the student sample was given course credit. Restrictions were placed on recruitment to ensure that no participants who participated in Study 1 could participate in Study 2. All participants provided informed consent according to Research Ethics Board approved protocols. The sample was predominately Caucasian (69.3%) with a mean age of 34.00 years ($SD = 10.38$). All measures were completed online through the website [www.qualtrics.com](http://www.qualtrics.com).

**Materials**

Demographics, psychopathic traits, dehumanization, and hostile sexism were assessed using the same measures as in Study 1. The SRP IV again showed high internal consistency ($\alpha = .92$ & .92 for Factor 1 and Factor 2). Similarly, emotional dehumanization, objectification dehumanization, and hostile sexism evidenced high internal consistency ($\alpha = .88$, .93, and .94 respectively), while the internal consistency of trait dehumanization was relatively low ($\alpha = .57$).
Date rape decision latency. To assess violent attitudes towards women we employed a date rape decision latency task. This is a measure based on the task created by Marx and Gross (1995). Participants were required to listen to an auditory account of a coercive sexual encounter which was four minutes and twenty-five seconds long. This was a scripted dialog between a man and a woman, the encounter progressed from the couple having returned from a date at the movies to the man later perpetrating date rape. After having listened to the auditory account the participants were provided with a line-by-line script of the encounter and were asked to indicate the scripted line where they would have “stopped the encounter” by selecting a line that corresponded to where they would have ceased all sexual advances. Higher scores reflected that the participant took longer to indicate that he would have stopped the encounter.

Study 2 Results and Discussion

The data analytic strategy for Study 2 was identical to the strategy employed in Study 1 (employing Mplus 7.2 statistical software (Muthen & Muthen, 2013), ML-R estimation, and the biased-corrected bootstrap method for indirect effects (MacKinnon et al., 2004)). The primary focus of the analysis was, again, the decomposition of the total effect of psychopathy on sexist and violent attitudes into direct and indirect effects via dehumanization. Demographic variables were tested in the same way as they were tested in Study 1, and age was negatively associated with psychopathy, and as such was the only demographic variable included in the final analyses. Fit indices were uninformative as the path model was fully saturated (i.e., df = 0).

Consistent with the results of Study 1, at the bivariate level Factor 1 and Factor 2 of psychopathy were significantly and positively related to all dehumanization and dependent variables (see Table 2-4). Generally, the model accounted for 50.4% of the variability in hostile
sexism and 14.8% of the variability in responses to the date rape decision latency measure. For a visual depiction of the results of study 2 see Figure 2-2.

Table 2-4

**Study 2 Descriptive Statistics and Bivariate Correlations**

<table>
<thead>
<tr>
<th>Variable</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>M</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>1) Factor 1</td>
<td>-</td>
<td>.76***</td>
<td>.31***</td>
<td>.24**</td>
<td>.30***</td>
<td>.58***</td>
<td>.59***</td>
<td>.25***</td>
<td>-.18*</td>
<td>83.44</td>
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</tr>
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<td>2) Factor 2</td>
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<td>.21**</td>
<td>.28***</td>
<td>.42***</td>
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<td>.25***</td>
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<td>-.02</td>
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<td>4) Dehuman-E</td>
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<td>.20**</td>
<td>.27***</td>
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<td>-.03</td>
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<td>.25***</td>
<td>.25***</td>
<td>-.13</td>
<td>2.36</td>
<td>1.09</td>
<td></td>
<td></td>
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<td></td>
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<td>6) Dehuman-O</td>
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<td>.61***</td>
<td>.33***</td>
<td>-.05</td>
<td>72.67</td>
<td>17.73</td>
<td></td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7) Hostile</td>
<td>-</td>
<td>.32***</td>
<td>-.15*</td>
<td>23.82</td>
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<td>8) DRDL</td>
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</table>

*Note. Factor 1 = Factor 1 psychopathy, Factor 2 = Factor 2 psychopathy, Dehuman-P = personality dehumanization, Dehuman-E = emotional dehumanization, Dehuman-SM = sense of mind dehumanization, Dehuman-O = objectification dehumanization, hostile = hostile sexism, DRDL = Date rape decision latency. * p < .05, ** p < .01, *** p < .001*

**Figure 2-4.** Path Model and direct effects results for Study 2. Solid lines indicate significant path coefficients, perforated lines are indicative of non-significant path coefficients. Standardized coefficients are represented below the path they correspond to.
As the bivariate results were in the desired direction we then tested the model represented in Figure 2-2. Both psychopathy factors were directly related to hostile sexism after accounting for all model variables (positively for Factor 1 ($B = .36, SE = .06, 95\% CI [.24, .48]$) and negatively for Factor 2: $B = -.19, SE = .05, 95\% CI [-.30, -.09]$) (see Table 2-5). Factor 1 was also positively and indirectly related to hostile sexism through objectification dehumanization ($B = .17, SE = .04, 95\% CI [.10, .26]$). Factor 2 was not indirectly associated with hostile sexism via any dehumanization measure (see Table 2-6).

Factor 2 was not directly or indirectly related to the decision latency measure through any dehumanization measure (see Tables 5 and 6). Once all the variables in the model were accounted for, Factor 1 was not directly related to date rape decision latency (see Table 2-5). However, Factor 1 was positively and indirectly related to date rape decision latency through objectification dehumanization ($B = .06, SE = .02, 95\% CI [.02, .10]$).

As with Study 1 there was an issue with suppression in the association between Factor 2 and hostile sexism. Again, the bivariate association between these two variables was significant and positive, but when entered into the model Factor 2 and hostile sexism shared a negative direct association. Employing the same method as was used in Study 1 it was revealed that it was Factor 1 which was acting as a suppressor variable, which again is not uncommon in the literature (Lynam et al., 2006).
Table 2-5

Study 2 Direct Effects of Negative and Violent Attitudes Towards Women on Psychopathy and Dehumanization

<table>
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<tr>
<th>Dependent Variable</th>
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<th>SE</th>
<th>95% CI</th>
<th>$\beta$</th>
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<td>-.09</td>
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<td>-.24</td>
<td>.83</td>
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<tr>
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<td>.02</td>
<td>.53</td>
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<td>.03</td>
<td>-.06</td>
<td>.08</td>
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<td>Factor 2</td>
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<td>.04</td>
<td>-.08</td>
<td>.06</td>
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<td>-.09</td>
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Note. Factor 1 = Factor 1 psychopathy, Factor 2 = Factor 2 psychopathy, Dehuman-P = personality dehumanization, Dehuman-E = emotional dehumanization, Dehuman-SM = sense of mind dehumanization, Dehuman-O = objectification dehumanization, DRDL = Date rape decision latency. * $p < .05$, ** $p < .01$, *** $p < .001$
Table 2-6

*Study 2 Indirect Effects from Psychopathy to Negative and Violent Attitudes Towards Women*

**Variables**

<table>
<thead>
<tr>
<th>Dependent Variable</th>
<th>Independent Variable</th>
<th>B</th>
<th>SE</th>
<th>95% CI</th>
<th>β</th>
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<tr>
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<td>.01</td>
<td>.01</td>
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<td>.03</td>
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</table>

*Note. Factor 1 = Factor 1 psychopathy, Factor 2 = Factor 2 psychopathy, Dehuman-P = personality dehumanization, Dehuman-E = emotional dehumanization, Dehuman-SM = sense of mind dehumanization, Dehuman-O = objectification dehumanization, DRDL = Date rape decision latency. * p < .05, ** p < .01, *** p < .001*

**Summary**

Consistent with our hypotheses, the association between Factor 1 and hostile sexism was both direct and indirect through objectification dehumanization. Contrary to our hypotheses, Factor 1 did not share an indirect association with sexism through sense of mind dehumanization. Also contrary to our hypotheses the association between Factor 1 and date rape decision latency was fully indirect through objectification dehumanization, and there was not a significant direct path. The results regarding Factor 2 provided mixed support for our hypotheses. Factor 2 was only directly related to hostile sexism and, contrary to our hypotheses,
was unrelated to date rape decision latency. Some of the results of Study 2 were consistent with Study 1, but overall results do suggest that dehumanization does represent a significant indirect pathway linking psychopathic traits to sexist and violent attitudes towards women, though perhaps more consistently for Factor 1.

**General Discussion**

The current work was focused on investigating whether dehumanization may indirectly link psychopathic traits to various measures of sexist and violent attitudes towards women. Specifically, we aimed to investigate whether individuals high in psychopathic traits engage in the dehumanization of women, and whether this dehumanization would, in turn, be associated with sexist and violent attitudes towards women. Across studies results indicated that both factors of psychopathy were significantly and positively associated with all measures of dehumanization and sexist and violent attitudes towards women at the bivariate level. This supports previous research which suggests that psychopathic traits are significantly and positively associated with violent attitudes towards women (Debowska et al., 2015; Mouilso & Calhoun, 2013; Watts et al., 2017). This research also adds to the scant literature examining the association between psychopathic traits and sexism (Pina, Holland, & James, 2017).

The results of Study 1 revealed that once the effects of the variables in the model were accounted for Factor 1 was directly associated with hostile sexism and rape myth acceptance, and Factor 2 was directly related to hostile sexism and attitudes supportive of violence against women. Interestingly, the relationship between Factor 1 and attitudes supportive of violence against women was fully indirect through objectification dehumanization, and the relationship between Factor 2 and rape myth acceptance was fully indirect through emotional and
objectification dehumanization, suggesting that for the association between psychopathic traits and these dependent variables dehumanization plays an important role.

The results of Study 2 regarding Factor 1 were largely consistent with the results of Study 1. Factor 1 was both directly and indirectly associated with hostile sexism, though in Study 2 it was only indirectly associated through objectification dehumanization and not through sense of mind dehumanization. Furthermore, the pattern of associations between Factor 1 and the date rape latency measure in Study 2 was similar to the pattern of associations between Factor 1 and attitudes supportive of violence against women in Study 1. Specifically, in both studies Factor 1 was fully indirectly related to these dependent variables through objectification dehumanization. Conversely, once entered into the model Factor 2 was only directly related to hostile sexism and was not directly or indirectly associated with the date rape decision latency measure. The discrepancy between Studies 1 and 2 regarding Factor 2 and hostile sexism could be a function of the smaller sample size employed in Study 2.

Another explanation could be reflected by the association between Factors 1 and 2 and types of aggression. There is meta-analytic evidence which suggests that some aspects of Factor 1 are more strongly associated with instrumental violence compared with Factor 2; whereas, some aspects of Factor 2 are more strongly associated with reactive violence compared with Factor 1 (Blais et al., 2014). This could suggest that individuals high in Factor 1 may engaging in planned aggression against women based on premeditation regarding their sub-human qualities and lack of deservingness of humane treatment. Conversely, if individuals high in Factor 2 are aggressing against women it may be partly a function of impulsive and emotional responses rather than premeditated assessments of the qualities and deservingness of women.
Although at the bivariate level in the current work, and in previous findings, sub-clinical psychopathy was associated with a variety of violent attitudes towards women, the truly interesting finding of the current work is that almost consistently (except for the associations with Factor 2 in Study 2) psychopathic traits are either partially or fully indirectly related to these constructs through dehumanization. This suggests that dehumanization plays a part in the attitudes and behaviour men high in psychopathic traits express towards women. Our results are consistent with the supposition that dehumanization may be a delegitimizing belief which facilitates negative attitudes and behaviour towards a group (Bar-Tal, 2000). Individuals high in psychopathic traits may endorse the idea that women are sub-human and as such they may endorse attitudes and behaviours towards women which are inhumane.

Interestingly, the most consistently significant indirect path from psychopathic traits to sexist and violent attitudes towards women appears to be through objectification dehumanization. This tendency to value a woman as a commodity based on her body consistently connects psychopathic traits to sexist and violent attitudes towards women. Objectification dehumanization may act as a specific kind of delegitimizing belief, reducing women’s worth to their bodies or body parts and facilitating inhumane attitudes and treatment of women which are consistent with the idea that women are sex objects. Delegitimization categorizes individuals into valued and devalued groups and denies the devalued group of humane treatment (Bar-Tal & Hammack, 2012). As such, if individuals high in psychopathic traits are categorizing women as sex objects for consumption they may then treat them in a manner fitting of that categorization. For example, studies have found that when primed with an image of a woman dressed in a bikini or lingerie (objectified) and then provided with a vignette where that same women was raped or physically assaulted, participants tend to endorse the idea
that she was feeling less pain (Pacilli et al., 2017) and was more to blame for the assault than when the same woman was shown to participants fully clothed (Loughnan et al., 2013). This is consistent with the supposition that if a woman is dehumanized thus delegitimized than it should become acceptable to treat her in inhumane ways.

The results of Study 1 also suggest that, for Factor 2, emotional dehumanization may also play a role in facilitating sexist and violent attitudes towards women. Specifically, Factor 2, appears to be associated with a tendency to ascribe more non-uniquely human emotions to women, which was further associated with the dependent variables in that study. However, it is important to note that this indirect pattern was not found in Study 2, as such further replication is needed.

**Limitations and Future Directions**

The current work employed a self-report measure of psychopathy, as such the results cannot be generalized to clinical populations. It should also be noted that the objectification measure was developed for a thesis, as such further validation is needed for this measure. It should be noted that it was associated with both the independent and dependent variables in our samples in the same way the other more established dehumanization measures were, which does suggest a level of validation, but more is needed.

Additionally, the current work employed cross-sectional designs and consequently it was not possible to make causal claims or establish temporal precedence. Though the models put forth suggests that psychopathic traits lead to dehumanization which leads to sexist and violent attitudes towards women, without longitudinal or experimental designs temporal precedence and causation cannot be established. However, employing dehumanization as an indirect link between individual difference factors and outcome variables was consistent with previous work
completed on dehumanization (Costello & Hodson, 2010; Costello & Hodson, 2011; Esses, Veenvliet, Hodson, & Mihic, 2008; Wright & Tokunaga, 2016). It was also consistent with the ordering suggested by the theory of dehumanization as a delegitimizing belief (Bar-Tal, 2000). Specifically, this theory posits that dehumanization facilitates inhumane treatment and attitudes towards the delegitimized group, which supports the argument that dehumanization would precede negative and violent attitudes towards the delegitimized group. Future studies should examine these associations by employing longitudinal designs to establish temporal precedence, and experimental designs to establish causation.

A consistent and interesting finding of the current work was the suppression effects between Factor 2 and hostile sexism. We found positive associations between these constructs at the bivariate level; however, when the joint variance between Factor 1 and Factor 2 were accounted for in the analyses, the association between Factor 2 and hostile sexism became negative. Suppression between psychopathy factors is often an issue faced when examining differences between bivariate and partial correlation results in the literature (Lynam et al., 2006). These results could indicate that once any manipulative and callous aspects are accounted for in Factor 2, it is no longer associated with negative appraisals of women. Factor 1 is characterized by a grandiose sense of self-worth, as such psychopathic individuals evaluate their worth as being superior to others. Once this sense of superiority is removed from Factor 2 it could result in fewer, or less extreme, evaluations that women are inferior to men. Future research should further elucidate what is being removed from Factors 1 and 2 during partialling to better understand what remains of these constructs. This would help to clarify why the relationships between Factors 1 and 2 and outcome variables change as a function of partialling.
The current work is the first of its kind to investigate dehumanization as a potential mechanism facilitating the link between psychopathic traits and sexist and violent attitudes towards women. Future studies can investigate the role of dehumanization in other negative attitudes and behaviour towards women, but also expand beyond women as a target group. Psychopathic traits are associated with a variety of different forms of prejudice (Hodson et al., 2009; Jones, 2013; Parrot & Zeichner, 2006), the results of the current work could suggest that those relationships may be facilitated by dehumanizing attitudes towards those groups. Consequently, future work should examine the indirect effect of dehumanization on the association between psychopathic traits and other forms of prejudice.

Psychopathic traits are not only associated with negative attitudes, but are also associated with actual violence perpetrated against women (Kiire, 2017; Okano, Langille, & Walsh, 2016). The inclusion of a date rape analogue measure was an important step in the literature, but future research should examine the indirect role dehumanization plays in the perpetration of violence against women, as it may present a viable target for intervention.

**Conclusions**

Though Ted Bundy provides an extreme example of psychopathy and psychopathic behaviour, the current work does support the notion that his tendency to view and treat women as objects may not be an isolated occurrence. Our results indicate that sub-clinical psychopathy is consistently related to measures of dehumanization, and that dehumanization does appear to indirectly link psychopathic traits to measures of sexist and violent attitudes towards women. Individuals high in psychopathic traits may be more inclined to endorse sexist and violent attitudes and behaviour towards women because they see them as being less human, and as such deserving of treatment that is less than humane.
References


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MacKinnon, D. P., Lockwood, C. M., & Williams, J. (2004). Confidence limits for the


CHAPTER 3

Study 3

Recently, a tremendous effort has been made to bring attention to the prevalence of the sexual mistreatment of women (Criss, 2017; Le Miere, 2017; Relman, 2017). Women have come together to not only acknowledge the prevalence of this mistreatment, but also to call for its immediate halt (Rainey, 2018). With such a media focus on these behaviours it is important that empirical research follow suit by identifying who is most likely to be engaging in these behaviours and understanding how to stop them. One of the ways to accomplish this is to identify characteristics predictive of this behaviour and any mechanism facilitating their association. Once this is accomplished those mechanisms can be targeted for change. Indeed, research has established that certain personality types and attitudes may predispose an individual towards engaging in this behaviour, specifically, those individuals who are high on psychopathic personality traits (Debowska, Boduszek, Dhingra, Kola, & Meller-Prunska, 2015; Methot-Jones, Book, & Gauthier, 2019; Mouilso & Calhoun, 2013; Watts, Bowes, Latzman, & Lilienfeld, 2017), and individuals who endorse dehumanizing attitudes towards women (Bernard, Loughnan, Marchal, Godart, & Klein, 2015; Blake & Gannon, 2014; Galdi, Maass, & Cadinu, 2014; Heflick & Goldenberg, 2009; Heflick, Goldenberg, Cooper, & Puvia, 2011; Loughnan et al, 2010; Papp & Erchull, 2017; Rudman & Mescher 2012; Vasquez, Ball, Loughnan, & Pina, 2018). Research has elucidated that the relationship that psychopathy shares with dehumanization is instrumental in understanding the association between psychopathy and constructs like sexism and violent attitudes towards women (Methot-Jones et al., 2019). Research by Methot-Jones and colleagues revealed that dehumanization acts as an indirect link explaining the association between psychopathy and negative and violent attitudes towards
women. Consequently, their results suggest that dehumanization may be a mechanism facilitating the association between psychopathy and negative attitudes towards women, and as such, may be a viable target for intervention.

Psychopathy is an antisocial personality construct comprised of characteristics such as: manipulative tendencies, a lack of empathy and remorse, general callousness, an erratic life style characterized by impulsivity, irresponsibility, and a parasitic disposition, and general antisocial behaviour (Hare & Neumann, 2008). Typically, the manipulative and affective characteristics are included in what is referred to as Factor 1 of psychopathy, and the lifestyle and antisocial behaviour aspects are included in Factor 2 (Hare & Neumann, 2008). Psychopathy is associated with both sexist (Methot-Jones et al., 2019) and violent attitudes towards women. It is related to the endorsement of rape myths (false and stereotypical beliefs which maximize the culpability of rape victims and also maximize the innocence of the perpetrator; Burt, 1980) (Debowska et al., 2015; Mouilso & Calhoun, 2013) and negative attitudes about rape victims (Watts et al., 2017). Psychopathy is also predictive of sexual recidivism (Hanson & Morton-Bourgon, 2005; Hawes, Boccaccini, & Murrie, 2013), intimate partner violence (IPV) (Mager, Bresin, & Verona, 2014; Marshall & Holtzworth-Munroe, 2010), relational rape (Camilleri & Quinsey, 2009), and sexual assault perpetration in both offender (Brown, Dargis, Mattern, Tsonis, & Newman, 2015; Porter et al., 2000), and non-offender samples (Mouilso & Calhoun, 2012a; Mouilso & Calhoun, 2012b). Clearly, psychopathic traits are a predictor of negative and violent attitudes towards women and would be important to consider in the mitigation of the mistreatment of women. Next it is crucial to identify its mechanisms, and as mentioned previously, dehumanization stands out as a possibility.
Dehumanization has been defined as the belief that a person (or group of people), is less human than the self (or person’s in-group) (Hodson, MacInnis, & Costello, 2014). Dehumanization is often measured by assessing a failure to attribute uniquely human qualities, traits, and mental states to others (Haslam, 2006; Haslam & Loughnan, 2014). What is typically found in the literature is that members of an in-group will attribute more uniquely human qualities to in-group members and will fail to attribute uniquely-human qualities to the members of an outgroup (Haslam, 2006; Haslam & Loughnan, 2014). Regarding women specifically, dehumanization can also be assessed through the measurement of the objectification of women (Haslam, Loughnan, Reynolds, & Wilson, 2007). Interestingly, as with psychopathy, research has also established that dehumanizing attitudes towards women is associated with sexism (Viki & Abrams, 2003; Methot-Jones et al., 2019) and violent attitudes towards women (Bernard et al., 2015; Blake & Gannon, 2014; Custers & McNallie, 2017; Galdi et al., 2014; Heflick & Goldenberg, 2009; Heflick et al., 2011; Loughnan et al, 2010; Loughnan et al., 2013; Pacilli et al., 2017; Papp & Erchull, 2017; Rudman & Mescher 2012; Vasquez et al., 2018), which suggests that both psychopathy and dehumanization play a role in predicting these negative attitudes.

Indeed, as mentioned previously, Methot-Jones and colleagues (2019) found evidence to suggest that psychopathy was indirectly associated with sexist and violent attitudes towards women via dehumanization. Specifically, they found that higher levels of psychopathy were associated with higher levels of dehumanization, which were in turn related to higher levels of sexist and violent attitudes towards women. The researchers based their model on theory that suggests that dehumanization can act as a delegitimizing belief, which is a negative evaluation of a person (or group of people) that is associated with the belief that the delegitimized persons do
not deserve to be treated humanely (indeed that they should be treated negatively) (Bar-Tal, 2000; see also Opotow, 1990). As such, previous work had theorized that the indirect association played by dehumanization could suggest that dehumanization is acting as a delegitimizing belief facilitating the association between psychopathy and negative attitudes towards women (Methot-Jones et al., 2019). Specifically, that if individuals high in psychopathic traits are endorsing the delegitimizing belief that women are subhuman, then this appraisal may be facilitating attitudes and behaviour towards women that is inhumane.

If dehumanization is indeed a mechanism facilitating the association between psychopathy and negative attitudes towards women, as previous research has suggested, then it could suggest that dehumanization may be a construct to target for manipulation. Specifically, by lowering levels of dehumanization in individuals higher in psychopathic traits it may also be possible to lower levels of sexist and violent attitudes towards women. Indeed, previous research has demonstrated that dehumanizing attitudes are malleable to change, and that by lowering levels of dehumanization other subjectively negative outcome variables can also be mitigated (Bandura, Underwood, & Fromson, 1979; Costello & Hodson, 2010; 2014; Pereira, Vala, & Leyens, 2009).

For example, Pereira and colleagues (2009) were able to successfully manipulate dehumanization towards an outgroup and see positive changes in prejudiced attitudes towards that group as well. They provided participants with contrived newspaper articles that either reinforced dehumanizing attitudes towards their target outgroup, humanized their outgroup, or was unrelated to group status. In the humanized condition the ingroup and outgroup were reported as expressing equivalent levels of uniquely human emotions. In the dehumanized condition the participants read that the outgroup expressed more non-uniquely-human emotions
and less uniquely human emotions than the participants ingroup. The researchers found that less
dehumanization and discrimination was expressed towards an outgroup when in the humanized
condition compared to the dehumanized condition.

Another study examined the role that the animal human divide plays in dehumanization
and also demonstrated the malleability of dehumanizing attitudes (Costello & Hodson, 2010).
Researchers in this field argue that animalistic dehumanization (where the dehumanized group
are likened to animals) emerges from a lack of regard for non-human animals. They argue that
the view that animals are inferior to humans stems into outgroup dehumanization; such that if
animals are less than human and certain groups are animal-like then they are also inferior
(Costello & Hodson, 2010). In a study by Costello and Hodson, 2010) results indicated that by
exposing participants to scientific evidence of the similarities between animals and humans a
humanizing effect can be seen. Additionally, more favourable and less biased opinions toward
the outgroup were reported by participants in an animal/human similarity emphasizing condition
(Costello & Hodson, 2010).

Another study examined the effect of humanization and dehumanization on aggressive
behaviour (Bandura et al., 1979). These researchers found that by having participants overhear
descriptions of subordinates that were either humanizing or dehumanizing they could impact the
amount of shocks that participants administered to those subordinates (participants were
responsible for administering shocks as a form of punishment). Indeed, they found that the
dehumanized condition involved the highest level of shock intensity, and that the humanized
condition involved the lowest level of shock intensity (even lower than what was found in the
neutral condition).
Together these studies provide some evidence to suggest that dehumanizing attitudes are malleable to change, and that even more importantly the negative attitudes associated with dehumanization also appear to change as a result. These effects have yet to be examined in the context of psychopathic personality traits, but they do present an interesting avenue of potential research. If it can be determined that sexist and violent attitudes towards women can be altered by introducing information that humanizes women, it could inform research examining rehabilitation techniques for psychopathic individuals.

Hare (1996), a leading psychopathy researcher, opined that cognitive and not emotion-based treatments are the best approach to treating psychopathic individuals. Though Hare was discussing clinical levels of psychopathy, his statements suggest that a cognitive intervention such as humanization may be a viable means of mitigating some of the sexist and violent attitudes towards women that are associated with sub-clinical traits.

Indeed, by introducing a novel means of mitigating some of the negative outcomes of psychopathic traits the current work provides a valuable addition to the literature. Unfortunately, relatively little research has been conducted on the treatment of psychopathic traits (Polaschek & Skeem, 2018), but of the existing research examining the impact of different treatment types mixed success has been demonstrated (Polaschek & Daly, 2013). Some treatment research has successfully assuaged some of the deleterious characteristics of psychopathy by lowering some of the violent outcomes of psychopathy (Polaschek, 2011; Skeem, Monahan, & Mulvey, 2002), lowering general offending rates (Polaschek, 2011), and reducing some of the risk factors predictive of recidivism (Lewis, Olver, & Wong, 2013; Olver & Wong, 2009). On the other hand, some treatment research has been inconclusive (Hobson, Shine, & Roberts, 2000; Ogloff, Wong, & Greenwood, 1990; Wong, Gordon, Gu, Lewis, & Olver, 2012), or worse, found that
treatment was making psychopathic offenders offend more quickly (Rice, Harris, & Comier, 1992).

Unfortunately, individuals high in psychopathic traits do tend to be more difficult to treat than non-psychopathic individuals (Polaschek & Skeem, 2018). Individuals high in psychopathic traits tend to be able to convince officials that they are rehabilitated, even when they are not (Hare, 1996), they are more likely to drop out of treatment (Olver & Wong, 2009; 2011), they tend to be combative (Chakhssi, de Ruiter, & Bernstein, 2010), and they tend to rate the treatment experience as being more negative than other patients (Harkins, Beech, & Thornton, 2013). Consequently, psychopathic offenders represent a difficult high-risk group to treat; and as such, new research employing novel treatment techniques is a valuable addition to this mixed but critical pool of research. The research demonstrating the indirect association between psychopathy and sexist and violent attitudes towards women via dehumanization, combined with the research demonstrating the malleability of dehumanizing attitudes presents an interesting and novel technique.

Current Project

The current work examined whether the introduction of humanizing information would lower levels of dehumanization as well as sexist and violent behaviour towards women in individuals high in psychopathic traits. We employed a modified version of the methodology employed by Pereira and colleagues (2009), rephrased to create conditions in which women were either humanized or dehumanized (as well as a neutral condition).

We decided to induce both humanization and dehumanization as research has demonstrated that delegitimizing beliefs can also be reinforced, and that reinforcement can increase tolerance toward discriminatory behaviour toward women (Ford, 2000). We wanted to
determine whether or not that effect would be more pronounced in individuals higher in psychopathic traits. Indeed, we predicted that because psychopathy is characterized by a grandiose sense of self-worth (Hare & Neumann, 2008) individuals high in psychopathic traits may be predisposed to ideas endorsing their own superiority, and information dehumanizing women would further reinforce these ideas.

The current work will employ the same measures that were employed in Study 2 of Methot-Jones and colleagues (2019) including: four forms of dehumanization (trait, emotional, sense of mind, and objectification), hostile sexism, and a date rape decision latency paradigm.

Again, we made the decision to analyze Factor 1 and 2 of psychopathy separately in the model tested (see Chapter 2). This decision was based on previous research which demonstrated that the direct and indirect associations they share with variables measuring sexist and violent attitudes towards women can differ (Methot-Jones et al., 2019).

**Hypotheses.** We expected that:

1) Psychopathic traits (both Factor 1 and Factor 2) would be positively and directly associated with the measures of dehumanization, sexism, and violent attitudes towards women at the bi-variate level (replicating the results of Methot-Jones and colleagues (2019)) (see Figure 3-1).

   a. Within the larger model we expected to find a positive direct association between Factor 1 and Hostile sexism, and a negative direct association between Factor 2 and Hostile sexism (as a function of suppression, see Methot-Jones et al., 2019).

   b. We expected that within the model we would not see direct associations between either factor of psychopathy and the date rape decision latency measure (as would replicate the findings of Study 2 of Methot-Jones and colleagues (2019)).
2) Psychopathic traits would be positively and indirectly related to our measures of violent and sexist attitudes towards women through dehumanization (replicating the results of Methot-Jones and colleagues (2019)) (see Figure 3-1).
   a. We expected that Factor 1, but not Factor 2, would be positively and indirectly associated hostile sexism through objectification (replicating the findings of Study 2 of Methot-Jones and colleagues (2019)).
   b. We expected that Factor 1, but not Factor 2, would be positively and indirectly associated with the date rape decision latency measure, and that this indirect link would be through objectification dehumanization (replicating the findings of Study 2 of Methot-Jones and colleagues (2019)).

3) The interaction terms between psychopathic traits and condition (created by dummy coding two condition variables: humanization condition versus neutral condition and dehumanization condition versus neutral condition) would be both significantly directly and indirectly related to our outcome variables.

4) Condition would moderate these associations such that:
   a. In the humanization condition, participants would show lower levels of dehumanization and sexist and violent attitudes towards women relative to those individuals in the neutral condition. Additionally, individuals higher in psychopathic traits would show less dehumanization and negative attitudes in the humanized condition (relative to the neutral condition). However, the difference between the scores of individuals high in psychopathic traits in the humanized condition and scores in the neutral condition would be smaller than the difference between the scores of participants low in psychopathic traits in the humanized
condition (compared to the neutral condition) (see Figure 3-2). Specifically, we expected that the effect of humanization would be weaker for individuals higher in psychopathic traits. This was based on the research that suggests that individuals higher in psychopathic traits tend to be more resistant to treatment change (Polaschek & Skeem, 2018)).

b. In the dehumanization condition, participants would show higher levels of dehumanization and sexist and violent attitudes towards women relative to those individuals in the neutral condition. Additionally, individuals higher in psychopathic traits would show more dehumanization and negative attitudes in the dehumanized condition (relative to the neutral condition). However, the difference between the scores of individuals high in psychopathy in the dehumanized condition and scores in the neutral condition would be larger than the difference between the scores of participants low in psychopathic traits in the dehumanized group and the neutral group. Specifically, we expected that the effect of dehumanization would be stronger for individuals higher in psychopathic traits. We hypothesized these patterns of associations because we believed individuals high in psychopathic traits would capitalize more on these delegitimizing beliefs because they reinforce their pre-existing grandiose evaluations of own their self-worth (Hare & Neumann, 2008) (see Figure 3-2).
Figure 5.1. Planned conceptual model. Condition variables represent a contrast (humanized vs. neutral, dehumanized vs. neutral).

Figure 3.6. Predicted interactions effect
Method

Participants

Thirty male undergraduate students and 176 men from Amazon’s Mechanical Turk (Mturk) were recruited, for a total of 206 participants. The sample collected from Mturk were compensated with $2.50 USD, and the student sample were compensated with course credit. The sample was predominately Caucasian (65.5%) and the mean age of participants was 35.08 (SD = 12.62). All measures were completed online through the website www.qualtrics.com.

Materials

Demographics. Participants filled out a simple demographics questionnaire where they provided information about their race and age.

Psychopathy. The Self-Report Psychopathy Scale: Version IV was employed to assess psychopathic traits (Paulhus, Neumann, & Hare, 2017). The SRP IV is a 64-item measure which includes the two factors of psychopathy. Responses are on a five-point Likert scale (1 = Disagree Strongly and 5 = Agree Strongly) and includes items such as “I would get a kick out of ‘scamming’ someone” and “I rarely follow the rules.” All indices were calculated as sums. Factor 1 measures interpersonal manipulation and callous affect related characteristics, and Factor 2 assesses erratic life-style and antisocial behaviour characteristics. Cronbach’s alpha reliability values were good for both Factor 1 (α = .91) and Factor 2 (α = .89)

Dehumanization. Dehumanization was assessed in four different ways: uniquely-human personality trait attribution, uniquely-human emotion attribution, sense of mind attribution, and the objectification of women.

The method employed by Costello and Hodson (2010) was utilized to assess trait and emotional dehumanization. Participants were presented with both uniquely human
(conscientiousness and openness to experience) and non-uniquely human (neuroticism and agreeableness) personality traits, and uniquely human emotions (guilt, admiration, compassion, etc.) and non-uniquely human emotions (joy, fear, excitement, etc.) and were asked to determine how much each trait and emotion apply to both men and women. Participants saw statements such as “Men are Critical, quarrelsome” and “Women experience Sadness” and responded on a 7-point Likert scale where $1 = \text{Disagree strongly}$ and $7 = \text{Agree strongly}$. The Cronbach’s alpha reliability value for personality trait-based dehumanization was relatively low ($\alpha = .51$), but was acceptable for the Emotional dehumanization variable ($\alpha = .88$).

To assess sense of mind dehumanization the general measure of mind attribution on the Mental State Attribution (MSA) task was utilized (Haslam, Kashima, Loughnan, Junqi, & Suitner, 2008). Participants were asked “How much “sense of mind” do women have?” on a 7-point Likert scale ($1 = \text{Not much mind at all}, 7 = \text{a lot of mind}$). Because this general measure only consists of one item it was not possible to establish a Cronbach’s alpha level for it, but the use of this general single item measure is not without precedence (see Loughnan et al., 2010; Skorska, Hodson, & Hoffarth, 2018).

Finally, the Men’s Objectification of Women Scale (Zolot, 2003) was employed to assess attitudes regarding the objectification of women. This scale has 25-items such as “I frequently give women a rating based on attractiveness” and “I like it when a thin woman wears tight clothing.” Each item is responded to on a five-point Likert scale ($1= \text{strongly disagree} \text{ and } 5= \text{strongly agree}$). This measure demonstrated strong reliability ($\alpha = .91$).

**Sexist and Violent Attitudes Towards Women.** The Hostile sexism scale of the Ambivalent Sexism Inventory (Glick & Fiske, 1996) was employed to assess sexist attitudes towards women. The Hostile sexism scale has 11-item such as “Most women interpret innocent
remarks or acts as being sexist” which are responded to on a six-point Likert scale (0 = disagree strongly to 5 = agree strongly). This subscale demonstrated adequate internal-consistency reliability (α = 94)

Finally, this study utilized a date rape decision latency measure to assess violent attitudes towards women. This task was based on the original task created by Marx and Gross (1995). Participants listened to an auditory account of a coercive sexual encounter lasting four minutes and twenty-five seconds. This scripted dialog involved a man and a woman having returned from a date at the movies. The encounter builds from the man attempting to verbally convince his partner to engage in sexual activity to the man later perpetrating date rape. After listening to the recording the participants were provided with a script of the encounter and were asked to select a line to indicate where they would have “stopped the encounter” and ceased all sexual advances.

Procedure

The current study employed a slightly modified version of the method employed by Pereira and colleagues (2009). Participants were provided a link to the survey, they were then immediately taken to the Qualtrics website and given a consent form. Participants read that they would be taking part in a study with two purposes, the first was to evaluate how well the media conveys scientific material, and the second was to investigate how personality traits, characteristics, and attitudes relate to one-another. This method was employed to avoid the participants discovering the purpose of the study. Before any manipulation participants completed the SRP-IV. Participants were then randomly assigned to one of three conditions, humanization (n = 72), dehumanization (n = 60), and neutral (n = 74). In each condition participants read a news article, in the two experimental conditions the articles were fictitious, and the neutral condition employed a real, but unrelated article (all stimuli can be found in
Appendix A). All articles were of similar length (both the humanization and dehumanization articles were 202 words, and the neutral article was 164 words long). The humanization and dehumanization articles were made to look as identical as possible with similar phrasing, advertisements, and layouts throughout, they also both included very similar looking bar graphs (though the values differed). In the humanized condition participants read an article reporting on a study with a main finding indicating that men and women experience equal levels of uniquely-human emotions. In the dehumanized condition participants read a contrived news article with a main finding suggesting that men experience more uniquely-human emotions than women. In the neutral condition participants read an article about dog behaviour. Participants were asked how well they thought the article portrayed empirical research. To assess whether the participants read and understood the article they were asked a multiple-choice question regarding the main finding of the study in the article. Any participant who did not answer this question correctly was removed from analyses. Next participants completed the dehumanization measures, followed by the measures assessing sexist and violent attitudes towards women.

**Results**

Bi-variate results, collapsed across condition, indicated that most of the variables were positively and significantly associated with one another, with the exception being the association between sense of mind dehumanization and the date rape decision latency measure as well as the association between age and a number of variables (see Table 3-1).
An analysis of variance (ANOVA) was conducted on the variables in the model grouped by condition. Unfortunately, results indicated that condition did not significantly impact any of the dehumanization or dependent variables; thus, our results indicated that our manipulation was not successful (see Table 3-2). To test further whether the predicted interaction between psychopathy and condition would impact either of the dependent variables a direct effects model was run examining the effect of the independent variables (including interaction terms) on the dependent variables. Unfortunately, these analyses indicated that none of the interaction terms were significant (see Supplementary Table 1). Because these preliminary results indicated that our manipulation was unsuccessful we made the decision to collapse participants into one group and test the same model that was run in Study 2 (Chapter 2) (see Figure 3-3). Essentially, this model predicts a direct association between psychopathy and sexist and violent attitudes towards women, but it also predicts a positive and indirect association through dehumanization (hypotheses 1a, 1b, 2a, and 2b of the current work). Though our experimental design was not

### Table 3-1

#### Study 3 Descriptive Statistics and Bivariate Correlations

<table>
<thead>
<tr>
<th>Variable</th>
<th>1</th>
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<td>.66***</td>
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<td>.25***</td>
<td>.29***</td>
<td>.58***</td>
<td>.57***</td>
<td>.31***</td>
<td>-.19**</td>
<td>80.76</td>
<td>17.72</td>
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<td>2) Factor 2</td>
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<td>.21***</td>
<td>.21**</td>
<td>.50***</td>
<td>.31***</td>
<td>.32***</td>
<td>-.06</td>
<td>69.46</td>
<td>16.92</td>
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<td>3) Dehuman-P</td>
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<td></td>
<td>.19**</td>
<td>.32***</td>
<td>.20**</td>
<td>.20**</td>
<td>.19**</td>
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<td>.32***</td>
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<td>9) Age</td>
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<td>35.08</td>
<td>12.62</td>
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</tbody>
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*Note.* Factor 1 = Factor 1 psychopathy, Factor 2 = Factor 2 psychopathy, Dehuman-P = personality dehumanization, Dehuman-E = emotional dehumanization, Dehuman-SM = sense of mind dehumanization, Dehuman-O = objectification dehumanization, hostile = hostile sexism, DRDL = Date rape decision latency. *p < .05, **p < .01, ***p < .001
successful, by retesting the model from Study 2 of this program of research Study 3 can provide
a replication.

Table 3-2

Study 3 Analysis of Variables (ANOVA) Results: The effect of Condition (Humanized,
Dehumanized, Neutral) on all Dehumanization Variables, Hostile Sexism, and The Date Rape
Decision Latency Measure

<table>
<thead>
<tr>
<th>Measure</th>
<th>SS Between</th>
<th>Df Between</th>
<th>MS Between</th>
<th>F</th>
<th>P</th>
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</thead>
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<td></td>
<td>SS Within</td>
<td>Df Within</td>
<td>MS Within</td>
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<td></td>
<td>1875.47</td>
<td>202</td>
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</table>

Note. Dehuman-P = personality dehumanization, Dehuman-E = emotional dehumanization,
Dehuman-SM = sense of mind dehumanization, Dehuman-O = objectification dehumanization,
DRDL = Date rape decision latency.

Though condition appeared to have no significant effect on any of the dehumanization or
dependent variables (see Table 3-2), as an extra precaution we accounted for the effects of
condition when running the final model. The condition control variables consisted of two dummy
coded variables (dehumanization condition versus control condition and humanization condition
versus control condition). The effect of condition was accounted for on every path in the model
tested.

To test the path model, analyses were conducted using Mplus 7.2 statistical software
(Muthen & Muthen, 2013) (see Figure 3-3). Emotional dehumanization, sense of mind
dehumanization, and the date rape decision latency measure were all positively skewed, and
hostile sexism and the date rape decision latency measure were slightly platykurtic (with standard skewness levels above 2 as recommended by Field (2009)) as such we made the decision to employ ML-R estimation as it is robust against violations of assumptions of normality. The primary focus of the analyses was the decomposition of the total effect of psychopathy on sexist and violent attitudes into direct and indirect effects via dehumanization. Indirect effects were tested using the biased-corrected bootstrap method, which provides a balance between Type 1 and Type 2 errors (MacKinnon, Lockwood, & Williams, 2004). Ten thousand bootstrap samples and 95% bias-corrected confidence intervals (CIs) were examined to determine the significance levels of the indirect effects. As with previous studies (Methot-Jones et al., 2019), we examined whether any demographic variables were significantly associated with the model variables. If the variable was significantly ($p < .05$) associated with the other variables in the model it was included in the final model as an independent variable predicting all dehumanization and outcome variables. Age, race, and sample type (student or Mturk) were all tested (age was tested using a correlational analysis, and the categorical variables were tested using ANOVA’s). Age was negatively associated with Factor 1 at the bivariate level, as such, it was included in our model. Race was also included in our model as Asian participants tended to score higher on some of the dehumanization and dependent variable measures. A dummy coded variable was created that contrasted a self-reported Asian descent with all other descents). Fit indices were not reported because the path model was fully saturated (i.e., $df = 0$).
Generally, the model accounted for 52.3% of the variability in hostile sexism, and 19.9% of the variability in the date rape decision latency measure. Once entered into the model, both Factor 1 ($B = .28$, SE = .05, 95% CI [.19, .37], $p < .001$) and Factor 2 ($B = -.18$, SE = .05, 95% CI [-.28, -.08], $p = .00$) were directly related to hostile sexism (though negatively for Factor 2) (see Table 3-3). Both Factor 1 ($B = .17$, SE = .04, 95% CI [.10, .24], $p < .001$) and 2 ($B = .09$, SE = .03, 95% CI [.03, .14], $p = .01$) were also indirectly related to Hostile sexism through objectification (see Table 3-4).

Consistent with previous research (Methot-Jones et al., 2019), there was an issue with suppression in the association between Factor 2 and hostile sexism. The bivariate association between Factor 2 and hostile sexism was statistically significant and positive, but when entered into the model this association became a negative direct association. Employing the same method
as Methot-Jones and colleagues it was once again revealed that Factor 1 was acting as a suppressor variable. This specific pattern of suppression (Factor 1 suppressing the association between Factor 2 and a dependent variable) is a common occurrence in the literature (Lynam, Hoyle, & Newman, 2006).

Once all the variables in the model were accounted for, only Factor 2 of psychopathy was directly related to date rape decision latency ($B = .09$, SE = .04, 95% CI [.01, .18], $p = .03$) (see Table 3-3). Factor 2 did not share an indirect association with date rape decision latency through any of the dehumanization variables. However, Factor 1 was marginally positively and indirectly related to date rape decision latency through objectification dehumanization ($B = .04$, SE = .02, 95% CI [.00, .08], $p = .06$) (see Table 3-4).
### Table 3-3

#### Study 3 Direct Effects of Sexist and Violent Attitudes Towards Women on Psychopathy and Dehumanization

<table>
<thead>
<tr>
<th>Dependent Variable</th>
<th>95% CI B</th>
<th>SE</th>
<th>95% CI B</th>
<th>SE</th>
<th>95% CI B</th>
<th>SE</th>
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<tr>
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**Note.** Factor 1 = Factor 1 psychopathy, Factor 2 = Factor 2 psychopathy, Dehuman-P = personality dehumanization, Dehuman-E = emotional dehumanization, Dehuman-SM = sense of mind dehumanization, Dehuman-O = objectification dehumanization, DRDL = Date rape decision latency. *p < .05, **p < .01, ***p < .001. This model controlled for age, race, and condition.
Table 3-4

Study 3 Indirect Effects from Psychopathy to Sexist and Violent Attitudes Towards Women

Variables

<table>
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<tr>
<th>Dependent Variable</th>
<th>Independent Variable</th>
<th>B</th>
<th>SE</th>
<th>95% CI</th>
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<td>.01</td>
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Note. Factor 1 = Factor 1 psychopathy, Factor 2 = Factor 2 psychopathy, Dehuman-P = personality dehumanization, Dehuman-E = emotional dehumanization, Dehuman-SM = sense of mind dehumanization, Dehuman-O = objectification dehumanization, DRDL= Date rape decision latency. * p < .05, ** p < .01, *** p < .001. The indirect effect from Factor 1 to DRDL through objectification had a p-value of .06. This model controlled for age, race, and condition.

Discussion

The goal of the current work was to determine whether the manipulation of women’s humanness would impact dehumanization and sexist and violent attitudes towards women. Our hypotheses regarding the interaction between psychopathy and condition were not supported. Indeed, condition appeared to have no effect on the variables in the model at all.

Unfortunately, the ANOVA result (Table 3-2) and the direct path model (Supplementary Table 1) indicated that condition failed to significantly impact any of the variables in our model.
This may be a function of the type of dehumanization we chose to focus on for our manipulation. Previous research found that emotional dehumanization was not the most consistent indirect link (Methot-Jones et al., 2019), but we wanted to be faithful to the original study design of Pereira and colleagues (2009). Pereira and colleagues (2009) successfully manipulated dehumanization between ingroups and outgroups which were differentiated by geographical location, Portugal versus Turkey. Despite their success, our lack of findings could suggest that this methodology does not work when manipulating dehumanization between the sexes. This could be a function of pre-existing beliefs regarding the emotional ranges of men and women. Typically, society endorses the idea that women possess and express more emotions than men (Newport, 2001), and as such a manipulation regarding the expressions of uniquely human emotions in women may not be strong enough to find a significant effect. With these attitudes notwithstanding, we chose to manipulate emotion dehumanization because Methot-Jones and colleagues (2019) found consistent indirect effects from psychopathy to sexist and violent attitudes towards women through emotional dehumanization, especially for Factor 2. This is doubly important because Factor 2 of psychopathy is typically a stronger predictor of sexual misbehaviour than Factor 1 (Hawes et al., 2013).

The results of Methot-Jones and colleagues (2019) suggests that the path from psychopathy to sexist and violent attitudes towards women through objectification dehumanization was more consistent than the path through emotional dehumanization; as such future studies should look to manipulate this form of dehumanization. There is a body of research which does focus on manipulating objectification-based dehumanization (Bernard et al., 2015; Loughnan et al, 2010; Loughnan, Pina, Vasquez, & Puvia, 2013; Pacilli et al., 2017). This body of research splits participants into one of two conditions (objectified and non-objectified),
participants are shown a picture of a woman (in the objectified condition the woman is depicted in either a bikini or lingerie and in the non-objectified condition the woman is depicted fully clothed) and then they read a vignette where the woman is the victim of sexual or physical violence. After reading the vignette participants then indicate their attitudes towards this victim (assessing victim/perpetrator blame, victim morality, victim pain etc.). This body of research typically finds that attitudes towards a female victim of sexual assault and intimate-partner violence can change based on whether or not the woman is presented to participants in a way that is objectifying (Bernard et al., 2015; Loughnan et al, 2010; Loughnan et al., 2013; Pacilli et al., 2017). Compared with the non-objectified condition, in objectified conditions participants express less concern for the victim and attribute more blame to her (Loughnan et al., 2010; Loughnan et al., 2013), they express less concern for her (Loughnan et al., 2013), they see her as being less moral (Loughnan et al., 2010), they indicate that she was feeling less physical (Loughnan et al., 2010; Pacilli et al., 2017) and psychological pain (Pacilli et al., 2017), and they attribute less blame to the perpetrator (Bernard et al., 2015). Though these results are interesting, the current work was attempting to investigate general attitudes towards women, rather than feelings regarding a specific woman, as such we chose to employ a more general manipulation.

The secondary objective of the current work was to replicate the findings of Methot-Jones and colleagues (2019). Essentially, we predicted that we would find an indirect association between psychopathy and sexist and violent attitudes towards women through dehumanization (Studies 1 and 2 of Methot-Jones et al., 2019) and that these findings would extend to a more behavioural measure of violent attitudes (Study 2 of Methot-Jones et al., 2019). When the original model from Methot-Jones and colleagues (2019) was re-created, and condition was controlled for, the current work replicated a similar pattern of results as was found in the original
study. As was predicted, both Factors 1 and 2 shared direct associations with hostile sexism (positive for Factor 1 and negative for Factor 2). Contrary to prediction, Factor 2 did share a direct association with the date rape decision latency measure. As predicted, the current work also replicated the indirect path found from Factor 1 to hostile sexism through objectification. The current work also found an additional, but unpredicted, significant indirect path from Factor 2 to hostile sexism through objectification (replicating Study 1 but not 2). Finally, the marginally significant indirect effect found from Factor 1 to the date rape decision latency measure through objectification mirrors the findings of Methot-Jones and colleagues (2019). Taken together our result support the conclusions of previous research, that dehumanization plays an important role in the association between psychopathy and sexist and violent attitudes towards women (Methot-Jones et al., 2019).

**Limitations and Future Directions**

One of the limitations of the current work was that it employed a combined student and community sample. Although researchers generally endorse the idea that psychopathy is a dimensional construct that exists on a continuum and can be measured even in non-clinical populations (Edens, Lilienfeld, Marcus, & Poythress, 2006; Hare, Neumann, & Mokros, 2018), our results cannot necessarily be generalized to a clinical or prison population. Future studies should employ a clinical sample; this would enable researchers to move beyond self-report measures of sexist and violent attitudes towards women and allow them to measure crimes committed against women as an outcome variable. This is important because although psychopathic traits are associated with sexist and violent attitudes towards women, they are also associated with the actual perpetration of violence against women (Brown et al., 2015; Camilleri & Quinsey, 2009; Mager, Bresin, & Verona, 2014; Mouilso & Calhoun, 2012a). Consequently,
future research needs to determine whether our model holds when predicting violent behaviour.

Beyond psychopathy, the effect of sample on the variables in this model were examined, and we found that sample type did not impact the model. This suggests that, for the current work, sample type did not significantly impact our results.

The objectification measure employed in the current work was designed as part of an Honour’s thesis project, as such it has not been subjected to the peer review process. However, it should be noted that across the three studies employed in the current program of research this measure has demonstrated a pattern of associations similar to the other measures of dehumanization employed. It has also demonstrated a pattern of associations to the dependent variables employed in these studies that is similar to the pattern of associations demonstrated by the other dehumanization variables. This measure has also been employed in other peer-reviewed research examining objectifying attitudes towards women (Bareket, Shnabel, Abeles, Gervais, & Yuval-Greenberg, 2018; Methot-Jones et al., 2019). Taken together this suggests a certain level of validity, but future validation studies should still be conducted on this measure.

This study employed a cross-sectional, quasi-experimental design. The experimental portion of this study was not successful, despite this we were able to replicate the patterns of associations found in Study 2 of Methot-Jones and colleagues (2019). Though the model tested does suggest a level of temporal precedence, until a successful experimental design or a longitudinal design is employed to test this model, temporal precedence cannot be assumed.

Though it should be noted that some psychopathy researchers study psychopathy as a heritable trait with evolutionary properties (Glenn, Kurzban, & Raine, 2011). Indeed, genetic effects account for as much as 50% of the variability in psychopathy (Blonigen, Carlson, Krueger, & Patrick, 2003; Larsson, Lichtenstein, & Andershed, 2006) which does suggest that psychopathic
traits are at least partially inherited from one’s parents. This attests to psychopathy’s viability as a predictor variable. Additionally, the theory of dehumanization as a delegitimizing belief suggests that delegitimization facilitates inhumane treatment and attitudes towards the delegitimized group (Bar-tal, 2000). Thus, this theory suggests that dehumanization should precede negative attitudes and behavior towards the delegitimized group. To further support the temporal precedence suggested by the current work, future studies should employ experimental and longitudinal designs to test our model and to provide further evidence of temporal precedence.

Our final (and arguably, most important) limitation was our choice of dehumanization manipulation. Though our methodology was designed to replicate the work of Pereira and colleagues (2009) as closely as possible, the design may have been more successful if another form of dehumanization had been employed. Future research could address this limitation by employing a manipulation of objectification dehumanization. For example, researchers could employ the manipulation utilized in previous objectification studies (Bernard et al., 2015; Loughnan et al., 2010; Loughnan et al., 2013; Pacilli et al., 2017), and also include a measure of psychopathy to see if reactions to the condition varied depending on the level of psychopathic traits present. Additionally, future research could employ the methodology of Pereira and colleagues (2009), as we did, but instead of manipulating perceptions of uniquely human emotions it could manipulate perceptions of objectification.

The presence of a suppression effect of Factor 1 on the association between Factor 2 and hostile sexism was replicated from Studies 1 and 2. These results suggest that something critical to the negative association between Factor 2 and hostile sexism is removed when the shared variability between Factor 1 and 2 is removed. This overlap likely contains aspects of Factor 1’s
grandiose sense of self-worth, which when removed may remove any evaluation of superiority over women that may have been present in Factor 2. Such that evaluations of inferiority may also be a part of the antisocial aspects of Factor 2 and explain the readiness with which individuals high in psychopathic traits offend against others. Future research should further elucidate these suppressive effects to fully understand why the relationship between Factor 2 and hostile sexism changes as a function of partialling.

Conclusions

Though the manipulation attempted in the current work was not successful, the current work was still a valuable addition to the literature because it provided a replication of previous findings (Methot-Jones et al., 2019). The current work replicated the indirect association between psychopathy and sexist attitudes towards women through dehumanization, and also replicated the extension of these findings to a more behavioural measure. The field of psychology has been plagued by a replication crisis (Earp & Trafimow, 2015), and as such the need for studies replicating effects previously found has never been stronger (Maxwell, Lau, & Howard, 2015; Open Science Collaboration, 2015; Rodgers & Shrout, 2018). Consequently, though this study did not provide the experimental findings we were hoping for, it still served the important purpose of demonstrating the consistency of the direct and indirect effects between psychopathy and sexist and violent attitudes towards women through dehumanization.

Most importantly, the current work further solidifies the importance of dehumanization in the association between psychopathy and negative attitudes towards women. Indeed, the consistent findings suggest that dehumanization may be facilitating the association between psychopathy and sexist and violent attitudes towards women.
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CHAPTER 4

General Discussion

Previous research has made it clear that psychopathic traits are consistent predictors of some devastating attitudes and behaviours towards women (Brown, Dargis, Mattern, Tsonis, & Newman, 2015; Camilleri & Quinsey, 2009; Mager, Bresin, & Verona, 2014; Marshall & Holtzworth-Munroe, 2010; Mouilso & Calhoun, 2012a; Mouilso & Calhoun, 2012b). Consequently, understanding and preventing these associations is paramount, and one of the ways in which this can be accomplished is by identifying, and targeting for change, any mechanisms that may be facilitating these associations. Thus, the current program of research was designed to investigate the role that dehumanization played in the association between psychopathy and sexist and violent attitudes towards women.

Study 1 was a large study that included a number of dehumanization variables and outcome variables. It was designed to be the foundation study that the rest of the program could be built on. Study 1 established that dehumanization may be acting as a mechanism indirectly linking psychopathy to negative attitudes towards women. Study 2 was designed to partially replicate Study 1 and extend it by including a behavioural measure of violent attitudes towards women. This step allowed us to take our findings a step closer to being able to predict actual violent behaviour against women. Study 3 was meant to progress this program of research even further by attempting to manipulate dehumanizing attitudes to examine whether dehumanizing attitudes towards women were malleable to change, and furthermore if changes in those dehumanizing attitudes would result in lower levels of sexist and violent attitudes towards women.
Studies 1 and 2 established that psychopathy, both Factor 1 and 2, were indeed indirectly linked to sexist and violent attitudes towards women through dehumanization. Unfortunately, Study 3 did not demonstrate the malleability of dehumanization that has been found in previous social psychological designs (Bandura, Underwood, & Fromson, 1979; Costello & Hodson, 2010; 2014; Pereira, Vala, & Leyens, 2009). Study 3 did, however, allow us to replicate Study 2 and provide more support for the indirect role dehumanization, especially objectification dehumanization, plays in the association between psychopathy and sexist and violent attitudes towards women.

The most important finding, bridging all three studies, was the consistent indirect role of dehumanization in the association between psychopathy and sexist and violent attitudes towards women. This program of research was able to provide evidence of this pattern of associations using self-report data, and then move on to replicate and expand on these findings using more behavioural measures. This consistency lends credence to the idea that dehumanization is a mechanism that can help to explain the association between psychopathic traits and sexist and violent attitudes towards women, such that dehumanization may be facilitating this association. It is apparent that the most consistent indirect path from psychopathic traits to negative attitudes towards women (regardless of psychopathy factor examined) was through objectification dehumanization. Objectification involves the tendency to value a person based on characteristics deemed useful to the objectifier (Vaes, Loughnan, & Puvia, 2013). Typically, this involves the valuation of a woman based on her body or body parts; this valuation is based on the body’s ability to provide pleasure for the objectifier (Fredrickson & Roberts, 1997). It makes sense that this form of dehumanization would most consistently explain the association between psychopathic traits and sexist and violent attitudes towards women. Most of the dehumanization
measures examined (with the exception of objectification) were originally designed to test
attitudes towards outgroups that generally had both male and female members; specifically,
groups based on: race (Costello & Hodson, 2014), status as an immigrant (Costello & Hodson,
2010), geographical location (Leyens et al., 2001), etc. As such, these measures may be missing
aspects of dehumanization that are unique to the dehumanization of women. These unique
aspects may be better captured by a measure specifically designed to assess the dehumanization
of women, like an objectification measure. For example, if a woman is objectified and her worth
reduced to her body’s ability to provide pleasure, it would make sense that this evaluation would
facilitate attitudes and behaviour towards her which are consistent with the perception that she is
a sex object. Hostile sexism, for example, often involves relegating women to a status that is
inferior to men (Glick & Fiske, 1996). If dehumanization is facilitating these sexist beliefs it may
suggest that when a woman’s worth is based solely on her body than it makes her worth less
than a man whose worth is based on so much more. Similarly, if sex is the goal and women are
sex objects then it should not be unexpected that a man should use force or violence against an
unwilling woman; firstly, because she is not fulfilling her purpose as a sex object, and secondly,
because she is less deserving of humane treatment than a non-objectified man. Thus, finding
more significant indirect paths through objectification than any other dehumanization measure
may be because objectification better captures the dehumanization of women more specifically.

The results of all three studies also suggest that the indirect association between
psychopathy and the dependent variables through dehumanization is more consistent for Factor 1
than it is for Factor 2. Across both Studies 2 and 3 we see that Factor 1 is consistently indirectly
related to the dependent variables through objectification. Factor 2, however, was not directly or
indirectly related to the date rape decision latency measure and was only indirectly associated
with hostile sexism in Study 2. This inconsistency could reflect the manner in which the different factors are associated with aggression, as was mentioned in Chapter 2. Specifically, that Factor 1 was more strongly associated with instrumental violence compared with Factor 2; and Factor 2 was more strongly associated with reactive violence compared to Factor 1 (Blais, Solodukhin, & Forth, 2014). Thus, individuals high in Factor 1 are aggressing against others in a more premeditated and planned manner. Conversely, individuals high in Factor 2 are aggressing as a reaction to a real or imagined slight. If dehumanizing women is facilitating aggression towards women, it does suggest a level of premeditation. If dehumanization is acting as a delegitimizing belief, which involves the assessment of women as non-human entities non-deserving of moral consideration, then, according to Bar-Tal (2000), this assessment would facilitate less than humane treatment of women. This is not a reactive process, it is very much premeditative. Thus, the delegitimization process is more compatible with premeditated aggression rather than reactive aggression, which could explain the more consistent associations with Factor 1 than Factor 2.

Though the most exciting finding of the current work was the identification of dehumanization as a potential mechanism facilitating the association between psychopathy and negative attitudes towards women, another exciting aspect of it was its multidisciplinary nature. One of the strengths of the current work was its ability to bring together the methodology and theory of two, at times divided, areas of the field: personality and social psychology. Psychology has been involved in a Person-Situation Debate (Kenrick & Funder, 1988), which pitted personality psychology against social psychology (Swann & Seyle, 2005). This debate had researchers question the validity and usefulness of research examining personality and individual difference variables in favour of the examination of situational/experimental variables (Swann &
Seyle, 2005). Luckily a symbiosis has begun to emerge in psychology, and from this symbiosis has emerged studies that bring together the strengths of both fields, integrating concepts from both social and personality psychology (Swann & Seyle, 2005), the current work is one such study. The dehumanization construct has been used for years in the field of social psychology to explain prejudice and violent attitudes, and more recently has been used to investigate bias and violence against women. Similarly, it has been well known for years in the field of personality psychology that psychopathy is a predictor of violence against women. Yet no study has bridged the gap between these two fields to bring these constructs together. The current work changed this, and what we found consistently was that the well-known association between psychopathy and negative attitudes towards women was almost always partially, if not fully, mediated through our dehumanization variables. Our results indicate that by bringing together constructs from both social and personality psychology, researchers can open a new world of discovery that would be impossible if a rigid adherence to constructs within one’s own field was maintained.

Limitations and Future Directions

Across all three studies of the current program of research one of the most consistent limitations is our choice in sample types. We employed a mixture of student and community samples, which does lend a certain amount of generalizability; it does not, however, allow us to generalize to a more clinical prison population. It should be noted that this program was the first, to the best of our knowledge, to investigate the role of dehumanization in the association between psychopathy and negative attitudes towards women. As such, it was important to first establish that this pattern of associations existed. Now that this pattern of association has been established and replicated, it can be examined in a clinical population. The possibility of examining the models tested in the current work using a prison sample would also allow for the
testing of purely behavioural outcomes. Instead of using self-report attitudinal dependent
variables, studies using a prison sample would be able to predict actual violent behaviour
perpetrated against women. Beyond differences in levels of psychopathic traits, university
students also tend to express more liberal views (Henry, 2008), which could suggest that samples
that include undergraduate students may be lower in sexism and dehumanization. However, it
should be noted that prejudice and dehumanizing attitudes have been found in undergraduate
samples (Costello & Hodson, 2010; MacInnis & Hodson, 2012; Viki & Abrams, 2003),
community samples (MacInnis & Hodson, 2012; Pacilli et al., 2017), and even in child samples
(Costello & Hodson, 2014). Furthermore, when we were deciding which control variables to
include in our models, we did test the effect of sample type and across all three studies sample
type did not appear to have a significant effect on the variables in our model.

It should also be highlighted that although researchers tend to place a greater importance
on studies investigating psychopathic traits in clinical samples, it does not mean that research in
non-clinical populations are uninformative. Most researchers agree that psychopathy is not a
taxon, and that clinical cut-offs are useful for treatment, but that psychopathy does not cease to
exist under the cut-off (Edens, Marcus, Lilienfeld, & Poythress, 2006; Hare & Neuman, 2008).
Rather, researchers argue that psychopathy is a multidimensional construct which exists on a
continuum (Edens et al., 2006; Hare, Neumann, & Mokros, 2018). Furthermore, researchers
argue that the associations that sub-clinical and clinical psychopathy share with outcome
variables do not differ in kind, but rather they differ in the degree of their association (Knight &
Guay, 2018). This suggests that should the models tested in the current work be tested in a
clinical setting the same patterns of associations would be found, and likely to a greater degree.
Consequently, researchers should examine the models tested in this program of research in a prison sample to see if our results hold-up in a clinical sample of psychopaths.

The failed manipulation in Study 3 also represents a limitation of the current work. As was stated in the limitations section of Chapter 3, the lack of effect is likely attributable to the choice to manipulate emotional dehumanization. In hindsight, manipulating perceptions of objectification dehumanization, as it was the most consistent indirect path in both Studies 1 and 2, may have been a better choice for manipulation. As such, future studies employing an experimental design should focus on objectification dehumanization.

Another issue to consider is that of employing a sample from Amazon’s Mechanical Turk (Mturk). Mturk is an online labour platform that allows researchers to post digital surveys that are completed by paid online participants. This website allows for the collection of vast amounts of data in very little time and with relative ease (Buhrmester, Kwang, & Gosling, 2011; Goodman, Cryder, & Cheema, 2013). Research has demonstrated that, in some ways, Mturk samples are comparable to samples gathered elsewhere: they are subject to the same type of biases and show similar experimental effect sizes (Goodman et al., 2013). Employing Mturk also provides researchers with certain benefits; specifically, it tends to introduce a diversity of age, socioeconomic status, gender, and geographic region that is not usually found in undergraduate samples (Gosling, Vazire, Srivastava, & Oliver, 2004). Indeed, some researchers have argued that Mturk is becoming a major tool for psychological research (Buhrmester et al., 2011). Mturk, however, is not without its limitations. It has been argued, that although Mturk workers are plentiful, quick to recruit, and diverse, they are also less likely to pay attention to experimental materials (Goodman et al., 2013). There is also some evidence to suggest that Mturk workers may be more likely to search the internet for answers to paradigms, even when unprompted, and
that they may be less extraverted and have lower self-esteem than participants gathered elsewhere (Goodman et al., 2013). As with any form of data collection, recruiting from Mturk represents both challenges and opportunities; consequently, future research should use samples that are not from Mturk to ensure that our results replicate.

A consistent and interesting finding that spanned all three studies was that of suppression. Suppression is not uncommon in psychopathy research, suppression is evident in studies examining psychopathy’s association with a number of dependent variables (Lynam, Hoyle, & Newman, 2006). Suppression is one of the most common issues faced in statistical techniques that remove (or partial out) the shared variance between independent variables (Lynam et al., 2009). It occurs when the association between an independent variable and a dependent variable changes when a third variable is included in a model. This third variable acts as a suppressor variable, such that when it is entered into a model together with the independent variable the variability it shares with that independent variable is removed which results in a change in its relationship with a dependent variable (Cohen, Cohen, West, & Aiken, 2003). In our case at the bivariate level Factor 2 (our independent variable) and hostile sexism (our dependent variable) are negatively related. When Factor 1 (our suppressor variable) is included in the model the shared variance between Factor 1 and 2 is partialled out, and what remains of Factor 2 is now positively related to hostile sexism. Thus, Factor 1 is suppressing the association between Factor 2 and hostile sexism. The problem with suppression often lies in the interpretation of results. Once variability has been removed from a variable it is difficult to determine what is left of the original construct and how to understand its new association with the dependent variable (Lynam et al., 2006). This issue is compounded if the partialled construct is not theoretically sound and defined, as this makes it more difficult to determine what is being removed. We have theorized
that the suppression we encountered is a result of the removal of aspects of grandiosity (characteristic of Factor 1) from Factor 2, and that by removing this variability a sense of superiority over women may also be removed. Though this is our theory, it is difficult to say with any certainty what is being removed from a construct and what remains of it after partialling. As such, future research needs to clarify exactly what is being removed from Factors 1 and 2 when their shared variability has been removed. An understanding of what is being removed will allow researchers to better understand why the relationships between psychopathy and hostile sexism change as a function of partialling.

Future studies should also attempt to test our models further using experimental and longitudinal designs. A longitudinal design can establish that the predicted temporal precedence (psychopathy, followed by dehumanization, followed by sexist and violent attitudes towards women) was as predicted. This type of study design can also help us to determine at which developmental stage this negative appraisal of women occurs. Additionally, if future studies are able to experimentally manipulate dehumanization, and successfully lower levels of the negative attitudes associated with it, then it could have real clinical implications. Psychopathy is a consistent predictor of violence perpetrated against women (Brown et al., 2015; Camilleri & Quinsey, 2009; Mager et al., 2014; Mouilso & Calhoun, 2012a); consequently, it is important to examine any manipulation with the potential to be transformed into a clinical technique designed to mitigate this association. If successful, these clinical techniques can be tested in a prison population using treatment and control groups to predict real-world outcomes, such as lower levels of violent offences perpetrated against women. Thus, this vein of research has the potential to create an intervention that could have the ability to decrease violent offences against women perpetrated by offenders high in psychopathic traits.
Indeed, if future studies are successful with experimental manipulations then their results have the potential to be helpful in the mitigation of other antisocial behaviours and attitudes associated with psychopathy. We know from the research that psychopathy is associated with prejudice against people of other races and sexual orientations (Hodson, Hogg, & MacInnis, 2009; Jones, 2013; Parrot & Zeichner, 2006); if dehumanization is facilitating these associations it could suggest that humanizing attitudes could mitigate them.

Specific victim types notwithstanding, we also know that psychopathy is associated with a general propensity toward criminal behaviour (Hare & Neumann, 2008). Individuals high in psychopathic traits tend to offend in a criminally versatile way against a variety of victim types (Hare & Neumann, 2008); and as such it may be difficult to perceive how dehumanization can help in a meaningful way. However, dehumanization can also provide insight into this type of behaviour. Research has established that we as humans tend to rate ourselves as being more human than the individuals around us (Haslam, Bain, Douge, Lee, & Bastian, 2005). This type of general dehumanization is likely even more pronounced in individuals high in psychopathic traits with their characteristic grandiose sense of self-worth (Hare, 1993). As such, future studies may be able to examine whether the criminal versatility characteristics of psychopathy are a function of a general dehumanizing tendency. Specifically, that individuals high in psychopathic traits may not be averse to victimizing everyone around them, simply as a function of their tendency to see everyone around them as being less human than they are themselves.

Future studies can also move outside of psychopathic offenders and examine the role that dehumanization plays in non-psychopathic offenders as well. Research outside of forensic psychology has demonstrated that dehumanizing attitudes towards women is associated with rape myth acceptance (Custers & McNallie, 2017; Papp & Erchull, 2017), rape proclivity (Blake
& Gannon, 2014; Galdi, Maass, & Cadinu, 2014; Rudman & Mescher 2012), and a willingness to sexually harass (Rudman & Mescher 2012). This could suggest, that for non-psychopathic offenders with female victim types, dehumanization may be facilitating violent behaviour and intentions towards women. Thus, humanization interventions designed for psychopathic offenders may also be useful for non-psychopathic offenders as well.

**Implications and Conclusions**

As was mentioned in the future research section, this vein of research has some important implications in the criminal justice system. By providing a consistent mechanism explaining the association between psychopathy and sexist and violent attitudes towards women, the current work provides a mechanism to target for change. This is especially important given that, despite them being high risk, relatively little research has been conducted on how to effectively treat psychopathic offenders (Polaschek & Skeem, 2018). This is further compounded by the idea that, of the research that has been conducted, the effectiveness of treatment on psychopathic offenders has demonstrated only mixed success (Polaschek & Daly, 2013). This research has implications outside of the narrow field of psychopathic offences against women. As discussed above, it has the potential to inform treatment strategies of psychopathic offenders more broadly, and even non-psychopathic offenders. More broadly still, this work has implications for society at large.

Though it may be tempting to see the most recent iterations of movements for women, such as MeToo and Times Up, as a sign that times are changing, caution must be taken. These movements are a positive sign of solidarity for women and they provide evidence that some members of the public are driven to protect women from harassment, violence, and inequality (Gonzales, 2018; North, 2018; Ramos, 2018). However, it must be noted that solidarity and support are not change, and they do not dictate that change must happen. As mentioned in
Chapter 1, the same outcry and solidarity for women occurred in the 1990’s after the unfortunate events surrounding Anita Hill (Bradley, 2018), and yet here we are as a society nearly thirty years later attempting to right the same types of wrongs committed against women.

Dehumanization may hold the key to understanding why we as a society have accepted the mistreatment of women for so long. Bar-Tal and Hammack (2012) argued that the sanctioning of delegitimization at the societal level is necessary in order for it to have a large effect on the delegitimized group. Indeed, women are regularly depicted in delegitimizing ways; they are often seen as being irrational, weak, and at the command of their biological and hormonal processes (Goldenberg & Roberts, 2004). Consequently, the normalization of the dehumanization of women in our society may be facilitating negative, violent, and restrictive treatment of women. It has been demonstrated empirically that dehumanization is associated with the negative treatment of women, and yet as a society dehumanizing and delegitimizing beliefs about women persist. This is important because dehumanizing and delegitimizing attitudes are argued to: (1) remove moral restraints preventing violence against an individual (Bar-Tal & Hammack, 2012); (2) place the dehumanized individual outside of the boundary of moral concern (such that fairness no longer applies to them) (Opotow, 1990); and (3) facilitate moral exclusion that further facilitates differential treatment toward that individual (such as trivializing their rights and endorsing less regard for that individual’s protection) (Hodson & MacInnis, 2016). Research has demonstrated that even a common-place sexist joke can facilitate more acceptance of discriminatory behaviour towards women (Ford, 2000). As such, more than awareness is necessary to better the plight of women today, research demonstrates that humanization may be paramount in that fight as well. Though individuals high in psychopathic
traits may represent an extreme, the results of our study further highlight the importance of understanding the role of dehumanization in the mistreatment of women.

In general, this program of research has highlighted the potentially important role dehumanization plays in the association between psychopathy and sexist and violent attitudes towards women. The current work was able to find this pattern of results in self-report data, but more importantly using more behavioural measures. The implementation of the date rape decision latency paradigm brought this program one step closer to predicting actual violence perpetrated against women. Our results, spanning over three studies, suggest that dehumanization may be an important mechanism facilitating the association between psychopathy and negative attitudes towards women. Specifically, that individuals high in psychopathic traits may view women as sub-human objects. This delegitimizing appraisal of women may be facilitating attitudes and behaviours towards women that are in keeping with the idea that women are sub-human and as such deserve to be treated in inhumane ways.
References


Hare, R. D., Neumann, C. S., & Mokros, A. (2018). The PCL-R assessment of psychopathy:


Supplementary Table 1

Study 3 Direct Effects of Sexist and Violent Attitudes Towards Women on Psychopathy Including Interaction Terms

<table>
<thead>
<tr>
<th>Dependent Variable</th>
<th>B</th>
<th>SE</th>
<th>95% CI</th>
<th>B</th>
<th>LL</th>
<th>UL</th>
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<tr>
<td>Hostile sexism</td>
<td>.45***</td>
<td>.10</td>
<td>.25</td>
<td>.64</td>
<td>.64</td>
<td>.64</td>
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<tr>
<td>Factor 1</td>
<td>-.08</td>
<td>.11</td>
<td>.29</td>
<td>.13</td>
<td>-.10</td>
<td>-.10</td>
</tr>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Humanization</td>
<td>-1.11</td>
<td>1.93</td>
<td>-4.91</td>
<td>2.68</td>
<td>-0.04</td>
<td>-0.04</td>
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<tr>
<td>Dehumanization</td>
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<td>1.89</td>
<td>-4.56</td>
<td>2.86</td>
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</tr>
<tr>
<td>Factor 1 x Human</td>
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<td>.14</td>
<td>-.30</td>
<td>.25</td>
<td>-.02</td>
<td>-.02</td>
</tr>
<tr>
<td>Factor 2 x Human</td>
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<td>.15</td>
<td>-.27</td>
<td>.31</td>
<td>.01</td>
<td>.01</td>
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<tr>
<td>Factor 1 x Dehuman</td>
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<td>.12</td>
<td>-.16</td>
<td>.32</td>
<td>.06</td>
<td>.06</td>
</tr>
<tr>
<td>Factor 2 x Dehuman</td>
<td>.04</td>
<td>.15</td>
<td>-.25</td>
<td>.33</td>
<td>.02</td>
<td>.02</td>
</tr>
<tr>
<td>DRDL</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Factor 1</td>
<td>.10</td>
<td>.07</td>
<td>-.03</td>
<td>.23</td>
<td>.23</td>
<td>.23</td>
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<td>Factor 2</td>
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<td>-.04</td>
<td>.25</td>
<td>.23</td>
<td>.23</td>
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<td>1.84</td>
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<td>-.05</td>
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<tr>
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<td>.09</td>
<td>-.29</td>
<td>.08</td>
<td>-.13</td>
<td>-.13</td>
</tr>
<tr>
<td>Factor 2 x Human</td>
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<td>-.19</td>
<td>.24</td>
<td>.03</td>
<td>.03</td>
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<tr>
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<td>.10</td>
<td>-.25</td>
<td>.14</td>
<td>-.05</td>
<td>-.05</td>
</tr>
</tbody>
</table>

Note. Factor 1 = Factor 1 psychopathy (centered), Factor 2 = Factor 2 psychopathy (centered), Humanization = dummy coded humanization variable, Dehumanization = Dummy coded dehumanization condition variable, DRDL= Date rape decision latency. * p < .05, ** p < .01, *** p < .001. This model controlled for age, race, and condition.
Appendices

APPENDIX A

Measures

SRP III – R11

Please rate the degree to which you agree with the following statements about you. You can be honest because your name cannot be connected to the answers as soon as they are submitted.

1
2
3
4
5
Disagree Strongly  Disagree  Neutral  Agree  Agree Strongly

1. I’m a rebellious person.
2. I’m more tough-minded than other people.
3. I think I could "beat" a lie detector.
4. I have taken illegal drugs (e.g., marijuana, ecstasy).
5. I have never been involved in delinquent gang activity.
6. I have never stolen a truck, car or motorcycle.
7. Most people are wimps.
8. I purposely flatter people to get them on my side.
9. I’ve often done something dangerous just for the thrill of it.
10. I have tricked someone into giving me money.
11. It tortures me to see an injured animal.
12. I have assaulted a law enforcement official or social worker.
13. I have pretended to be someone else in order to get something.
14. I always plan out my weekly activities.
15. I like to see fist-fights.
16. I’m not tricky or sly.
17. I’d be good at a dangerous job because I make fast decisions.
18. I have never tried to force someone to have sex.
19. My friends would say that I am a warm person.
20. I would get a kick out of ‘scamming’ some one.
21. I have never attacked someone with the idea of injuring them.
22. I never miss appointments.
23. I avoid horror movies.
24. I trust other people to be honest.
25. I hate high speed driving.
26. I feel so sorry when I see a homeless person.
27. It's fun to see how far you can push people before they get upset.
28. I enjoy doing wild things.
29. I have broken into a building or vehicle in order to steal something or vandalize.
30. I don’t bother to keep in touch with my family any more.
31. I find it difficult to manipulate people.
32. I rarely follow the rules.
33. I never cry at movies.
34. I have never been arrested.
35. You should take advantage of other people before they do it to you.
36. I don’t enjoy gambling for real money.
37. People sometimes say that I’m cold-hearted.
38. People can usually tell if I am lying.
39. I like to have sex with people I barely know.
40. I love violent sports and movies.
41. Sometimes you have to pretend you like people to get something out of them.
42. I am an impulsive person.
43. I have taken hard drugs (e.g., heroin, cocaine).
44. I’m a soft-hearted person.
45. I can talk people into anything.
46. I never shoplifted from a store.
47. I don’t enjoy taking risks.
48. People are too sensitive when I tell them the truth about themselves.
49. I was convicted of a serious crime.
50. Most people tell lies everyday.
51. I keep getting in trouble for the same things over and over.
52. Every now and then I carry a weapon (knife or gun) for protection.
53. People cry way too much at funerals.
54. You can get what you want by telling people what they want to hear.
55. I easily get bored.
56. I never feel guilty over hurting others.
57. I have threatened people into giving me money, clothes, or makeup.
58. A lot of people are “suckers” and can easily be fooled.
59. I admit that I often “mouth off” without thinking.
60. I sometimes dump friends that I don’t need any more.
61. I would never step on others to get what I want.
62. I have close friends who served time in prison.
63. I purposely tried to hit someone with the vehicle I was driving.
64. I have violated my probation from prison.
Trait Dehumanization
TEN-ITEM PERSONALITY INVENTORY-(TIPI)

Here are a number of personality traits that may or may not apply to everyone equally. Please write a number next to each statement to indicate the extent to which you agree or disagree with that statement. You should rate the extent to which the pair of traits applies, even if one characteristic applies more strongly than the other.

1 = Disagree strongly
2 = Disagree moderately
3 = Disagree a little
4 = Neither agree nor disagree
5 = Agree a little
6 = Agree moderately
7 = Agree strongly

1. _____ Men are Extraverted, enthusiastic.
2. _____ Men are Critical, quarrelsome.
3. _____ Men are Dependable, self-disciplined.
4. _____ Men are Anxious, easily upset.
5. _____ Men are Open to new experiences, complex.
6. _____ Men are Reserved, quiet.
7. _____ Men are Sympathetic, warm.
8. _____ Men are Disorganized, careless.
9. _____ Men are Calm, emotionally stable.
10. _____ Men are Conventional, uncreative.
11. _____ Women are Extraverted, enthusiastic.
12. _____ Women are Critical, quarrelsome.
13. _____ Women are Dependable, self-disciplined.
14. _____ Women are Anxious, easily upset.
15. _____ Women are Open to new experiences, complex.

16. _____ Women are Reserved, quiet.

17. _____ Women are Sympathetic, warm.

18. _____ Women are Disorganized, careless.

19. _____ Women are Calm, emotionally stable.

20. _____ Women are Conventional, uncreative.
Sense of Mind Dehumanization

1. How much “sense of mind” do women have?

1  2  3  4  5  6  7
Not much mind at all  A lot of mind

2. How much “sense of mind” do men have?

1  2  3  4  5  6  7
Not much mind at all  A lot of mind
Men's Objectification of Women
Please read the following statements and mark how much you agree according to the following values:
1= strongly disagree 2= disagree 3= undecided or neutral 4= agree 5= strongly agree

1. Commenting on a woman's physical features is only natural.
2. I frequently give women a rating based on attractiveness.
3. Commenting on a woman's physical features is all in fun.
4. A woman should be flattered when I look at her.
5. I think watching women is entertaining.
6. I often comment on a woman's looks based on how her clothing fits her.
7. During the day, I think about how women look many times.
8. Women need to show a little skin to be on the cutting edge of fashion.
9. I often do not know the women I look at and comment on.
10. I believe that all men comment on women's bodies.
11. I like it when a thin woman wears tight clothing.
12. I think women are flattered when I make it obvious that I am checking them out.
13. I have made comments to friend about women who I find unattractive.
14. I have made up nicknames for a woman based on her appearance.
15. My friends and I tease each other about unattractive women with whom we have had romantic encounters.
16. I have made jokes about ugly women.
17. I always use appropriate names when describing women's bodies.
18. I would never make comments to peers about unattractive women.
19. It doesn't bother me when men comments about women.
20. It doesn't bother me when men around me make crude comments about women loud enough for them to hear.
21. I would be less likely to comment on the body of a woman I know well.
22. It bothers me when someone comments on a woman's body if I know her well.
23. I feel it is alright to comment on a woman's chest in a bar setting.
24. I would complement a woman's looks if she had a very attractive face, but a not so ideal body.
25. I would complement a woman's looks if she had an ideal body, but a not so ideal face.
Emotional Dehumanization
Here are a number of emotions that may or may not be expressed by everyone equally. Please write a number next to each statement to indicate the extent to which you agree or disagree with that statement.
1 = Disagree strongly
2 = Disagree moderately
3 = Disagree a little
4 = Neither agree nor disagree
5 = Agree a little
6 = Agree moderately
7 = Agree strongly

1) _____ Men experience Joy
2) _____ Men experience Sadness
3) _____ Men experience Anger
4) _____ Men experience Fear
5) _____ Men experience Disgust
6) _____ Men experience Surprise
7) _____ Men experience Affection
8) _____ Men experience Admiration
9) _____ Men experience Pride
10) _____ Men experience Conceit
11) _____ Men experience Nostalgia
12) _____ Men experience Remorse
13) _____ Men experience Rancor
14) _____ Women experience Joy
15) _____ Women experience Sadness
16) _____ Women experience Anger
17) _____ Women experience Fear
18) _____ Women experience Disgust
19) _____ Women experience Surprise
20) _____ Women experience Affection
21) _____ Women experience Admiration
22) _____ Women experience Pride
23) _____ Women experience Conceit
24) _____ Women experience Nostalgia
25) _____ Women experience Remorse
26) _____ Women experience Rancor
Attitudes Supportive of Violence Against Women

Please respond on a scale from 1) strongly disagree to (7) strongly agree.

Being roughed up is sexually stimulating to many women

Many times a woman will pretend she doesn’t want to have intercourse because she doesn’t want to seem loose, but she’s really hoping the man will force her

Sometimes the only way a man can get a cold woman turned on is to use force

When women go around braless or wearing short skirts and tight tops, they are just asking for trouble

A woman who is stuck-up and thinks she is too good to talk to guys on the street deserves to be taught a lesson
Illinois Rape Myth Acceptance Scale (IRMA)

• Scoring: Scores range from 1 (strongly agree) to 5 (strongly disagree).

Subscale 1: She asked for it
1. If a girl is raped while she is drunk, she is at least somewhat responsible for letting things get out of hand.
2. When girls go to parties wearing slutty clothes, they are asking for trouble.
3. If a girl goes to a room alone with a guy at a party, it is her own fault if she is raped.
4. If a girl acts like a slut, eventually she is going to get into trouble.
5. When girls get raped, it’s often because the way they said “no” was unclear.
6. If a girl initiates kissing or hooking up, she should not be surprised if a guy assumes she wants to have sex.

Subscale 2: He didn’t mean to
7. When guys rape, it is usually because of their strong desire for sex.
8. Guys don’t usually intend to force sex on a girl, but sometimes they get too sexually carried away.
9. Rape happens when a guy’s sex drive goes out of control.
10. If a guy is drunk, he might rape someone unintentionally.
11. It shouldn’t be considered rape if a guy is drunk and didn’t realize what he was doing.
12. If both people are drunk, it can’t be rape.

Subscale 3: It wasn’t really rape
13. If a girl doesn’t physically resist sex—even if protesting verbally—it can’t be considered rape.
14. If a girl doesn’t physically fight back, you can’t really say it was rape.
15. A rape probably doesn’t happen if a girl doesn’t have any bruises or marks.
16. If the accused “rapist” doesn’t have a weapon, you really can’t call it rape.
17. If a girl doesn’t say “no” she can’t claim rape.

Subscale 4: She lied
18. A lot of times, girls who say they were raped agreed to have sex and then regret it.
19. Rape accusations are often used as a way of getting back at guys.
20. A lot of times, girls who say they were raped often led the guy on and then had regrets.
21. A lot of times, girls who claim they were raped have emotional problems.
22. Girls who are caught cheating on their boyfriends sometimes claim it was rape.
The Ambivalent Sexism Inventory (ASI)
Relationships Between Men and Women Below is a series of statements concerning men and
women and their relationships in contemporary society. Please indicate the degree to which you
agree or disagree with each statement using the following scale: 0 = disagree strongly; 1 =
disagree somewhat; 2 = disagree slightly; 3 = agree slightly; 4 = agree somewhat; 5 = agree
strongly.

B(I) 1. No matter how accomplished he is, a man is not truly complete as a person unless he has
the love of a woman.

H 2. Many women are actually seeking special favors, such as hiring policies that favor them
over men, under the guise of
    asking for "equality."
B(P)* 3. In a disaster, women ought not necessarily to be rescued before men.

H 4. Most women interpret innocent remarks or acts as being sexist.

H 5. Women are too easily offended.

B(I)* 6. People are often truly happy in life without being romantically involved with a member
of the other sex.

H* 7. Feminists are not seeking for women to have more power than men.

B(G) 8. Many women have a quality of purity that few men possess.

B(P) 9. Women should be cherished and protected by men.

H 10. Most women fail to appreciate fully all that men do for them.

H 11. Women seek to gain power by getting control over men.

B(I) 12. Every man ought to have a woman whom he adores.

B(I)*13. Men are complete without women.

H 14. Women exaggerate problems they have at work.

H 15. Once a woman gets a man to commit to her, she usually tries to put him on a tight leash.

H 16. When women lose to men in a fair competition, they typically complain about being
discriminated against.

B(P)17. A good woman should be set on a pedestal by her man.
There are actually very few women who get a kick out of teasing men by seeming sexually available and then refusing Male advances.

Women, compared to men, tend to have a superior moral sensibility.

Men should be willing to sacrifice their own well being in order to provide financially for the women in their lives.

Feminists are making entirely reasonable demands of men.

Women, as compared to men, tend to have a more refined sense of culture and good taste.
Date Rape Decision Latency Script
Please read through this script of the recording that you have just listened to and indicate where you would have stopped the encounter, to do this please select a line that corresponds to where you think you would have ceased all advances towards the women in the recording.

JAMES: Please excuse my apartment it’s a real mess right now.
TANYA: Oh that’s alright I don’t mind.
JAMES: Would you like to sit down on the couch?
TANYA: Sure.
JAMES: I’m going to turn down the lights, if that’s alright?
TANYA: That’s fine.
JAMES: I don’t know about you, but I really enjoyed that movie. Jack Nicholson is one of my all time favourite actors. What do you think?
TANYA: Yeah, I thought it was good, although the ending was really predictable.
JAMES: That true, but it was still entertaining. Besides, the best part of the movie was being with you.
TANYA: Thanks, I enjoy being with you too.
**Kissing sounds**
TANYA: Did anybody ever tell you that you’re a great kisser?
JAMES: Well, maybe one or too, you’re sitting too far away from me, I need to move closer to you. Now this is much better
TANYA: You really know how to show a girl a good time James. Kiss me.
**Kissing sounds**
JAMES: You have such a hot body, when I’m close to you like this it drives me wild.
TANYA: Well, I love it when you hold me like this, it feels so good.
JAMES: Oh yeah, it feels good to me too, I like to touch your breasts.
TANYA: James don’t do that.
JAMES: You really turn me on, kiss me.
**Kissing sounds**
TANYA: Please James, I like it when you touch my chest, but not right now.
JAMES: Okay, I’m sorry, but you know that when I get close to you I just about lose control. I apologize it…it won’t happen again.
TANYA: Oh it’s alright now come here and kiss me.
JAMES: Anything you say.
**Kissing sounds**
TANYA: James, haven’t you been listening to me? I just got through telling you that I didn’t want you touching my chest, and now you go and touch my butt. I want there to be something more to our relationship than just sex, don’t you?
JAMES: Sure I do Tanya, but I need this stuff as much as the other. It’s important to me.
TANYA: Don’t you care what’s important to me?
JAMES: Yes of course I care what’s important to you, but I just want you so much.
TANYA: No, I can’t right now.
JAMES: Oh come on now don’t tease me. I know how you feel about me and you know how I feel about you, I know you want to sleep with me.
TANYA: No not tonight. I don’t want our relationship to be based only on sex.
JAMES: Well if it’s more time you want, then it’s more time you’ll get.
TANYA: Oh James I knew you would understand. Come here.
**Kissing Sounds**
JAMES: I love you Tanya.
TANYA: No James! Get your hands out of my pants!
JAMES: Tanya if you don’t let me do this I don’t know what I’ll do. I think I might have to stop seeing you. I know you don’t want that to happen. So why don’t we just sleep together?
TANYA: I don’t want that to happen but..
JAMES: Then why don’t we just remove these jeans, since that will make things a lot easier.
TANYA: Please don’t do this James, I don’t think you understand that I don’t want sex right now.
JAMES: Well you act as if you want it, but if you feel that strongly about it then stay away from me. You know Tanya you’re nothing but a big tease.
TANYA: Wait James, don’t be upset with me. I know you don’t want to wait, but I do really care about you. I just think we should slow down. Hold me and kiss me like this.
**Kissing sounds**
JAMES: You know you want it Tanya!
TANYA: No James get away from me!
JAMES: Don’t push it Tanya. If you don’t sleep with me right now I’ll have to hurt you and I know you don’t want that to happen.
TANYA: Just stay away from me! Don’t you dare touch me James!
JAMES: One way or the other you are going to give it to me.
TANYA: James stop!
JAMES: These pants are coming off right now and you are going to have sex with me. Don’t fight it Tanya, you know you want it.
TANYA: James get off of me!

Dehumanization Manipulation for Study 3
The following is an article published in a large Canadian newspaper based on a scientific study conducted in a university in Denmark. We as researchers are interested in what individuals in academia (Students, Professors, etc.) think about how mainstream media outlets disseminate scientific research. Please read the following article and answers the questions presented below it.
Emotional vocabulary different depending on sex

The emotions expressed by people appear to differ as a function of sex according to a study conducted by the University of Copenhagen.

COPENHAGEN — A new study coming out of Denmark indicates that those age-old adages suggesting men and women exist on opposite sides of the emotional spectrum may be true after all. The study found that the types of emotions that we feel and express differ depending on our sex.

This research suggests that there are two types of emotions: primary and secondary emotions. Primary emotions such as joy, sadness, and fear are experienced by humans and animals alike. Secondary emotions such as admiration, pride, and nostalgia are unique to humans, as these emotions are socially constructed.

According to this Danish study primary and secondary emotions are not expressed equally by both sexes. This study found that men express more secondary (uniquely human) emotions, and women express more primary (non-uniquely human) emotions.

The researchers stated that they were not surprised to discover a difference in emotional expression, as many axioms attest to emotional differences between men and women. They indicated that the next step in their research would be to investigate why this discrepancy exists.
1) Were the findings of the original study clear?
   a) Very clear, the appropriate amount of detail was present from the original study
   b) Somewhat clear, some detail was present from the original study, but more detail could be present.
   c) Somewhat unclear, lacking in much of the detail from the original study.
   d) Very unclear, lacking almost all the details from the original study

2) What was the main finding of the research study covered by this article?
   a) Men and women have similar emotional expression.
   b) Men express more non-uniquely human emotions than women.
   c) Men express more uniquely-human emotions than women.

3) What details should be added to make this article a better representation of the original article?
   ________________________________________________________________
The following is an article published in a large Canadian newspaper based on a scientific study conducted in a university in Denmark. We as researchers are interested in what individuals in academia (Students, Professors, etc.) think about how mainstream media outlets disseminate scientific research. Please read the following article and answers the questions presented below it.
Emotional vocabulary does not vary depending on sex

The emotions expressed by people do not seem to differ as a function of sex according to a study conducted by the University of Copenhagen.

COPENHAGEN – A new study coming out of Denmark indicates that those age-old adages suggesting men and women exist on opposite sides of the emotional spectrum may not be as true as one would think. The study found that the types of emotions that we feel and express do not differ depending on our sex.

This research suggests that there are two types of emotions: primary and secondary emotions. Primary emotions such as joy, sadness, and fear are experienced by humans and animals alike. Secondary emotions such as admiration, pride, and nostalgia are unique to humans, as these emotions are socially constructed.

According to this Danish study the types of emotions expressed by men and women did not differ. This study found that men and women both expressed more secondary (uniquely human) than primary (non-unique human) emotions.

The researchers were surprised by how closely the emotional expressions of men and women resembled each other. This finding is especially surprising considering the common perception that men and women are emotionally distant.

Almost 80 percent of Toronto residents make more than $50,000.
1) Were the findings of the original study clear?
   a) Very clear, the appropriate amount of detail was present from the original study.
   b) Somewhat clear, some detail was present from the original study, but more detail could be present.
   c) Somewhat unclear, lacking in much of the detail from the original study.
   d) Very unclear, lacking almost all the details from the original study.

2) What was the main finding of the research study covered by this article?
   a) Women express more non-uniquely human emotions than women.
   b) Men and women have similar emotional expression.
   c) Men express more uniquely-human emotions than women.

3) What details should be added to make this article a better representation of the original article?
______________________________
______________________________
The following is an article published in a large Canadian newspaper based on a scientific study. We as researchers are interested in what individuals in academia (Students, Professors, etc.) think about how mainstream media outlets disseminate scientific research. Please read the following article and answer the questions presented below it.

1) Were the findings of the original study clear?
a) Very clear, the appropriate amount of detail was present from the original study.
b) Somewhat clear, some detail was present from the original study, but more detail could be present.
c) Somewhat unclear, lacking in much of the detail from the original study.
d) Very unclear, lacking almost all the details from the original study.

2) What was the main finding of the research study covered by this article?
a) Dogs have learned to preform an apology bow from their owners, as a similar action can be seen in humans.
b) Apology bows are an inherited trait designed to allow dogs to return to grace after a misbehaviour.
c) Apology bows are an evolutionary trait aimed at deceiving the pack in order to get away with misbehaviour.

3) What details should be added to make this article a better representation of the original article?

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APPENDIX B
Information Regarding Outliers and Participant Removal

Winsorizing was employed to address univariate outliers. To maintain rank order, any univariate outlier was Winsorized to .10 above the next closest value.

To test for the effect of multivariate outliers, all participants identified as multivariate outliers were removed from the analysis, if their removal significantly impacted the results of the models they were removed from analyses, if they did not, they remained. Three such cases were removed from study 1 and four from study 3.

Participants were removed if they completed less than two of the measures within a given study. Sixty-nine such cases were removed from study 1, 16 such cases were removed from study 2, and 36 participants were removed from study 3. Additionally, 19 participants were removed from study 3 because they failed to answer questions designed to test if they had comprehended the results of the manipulation articles.