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An exploration of how social dominance relates to attitudes supportive of sexual violence

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Abstract

Social Dominance Theory (SDT) argues that within economically stable societies, hostility and prejudice towards outgroups are maintained by *hierarchy enhancing* legitimising myths which enhance or support the established hierarchy and are typically perpetuated by dominant ideologies. SDT highlights how hierarchy enhancing institutions perpetuate inequality by diverting resources towards maintaining the hierarchical status-quo. Social Dominance Orientation (SDO) is the measurable component of SDT and is related to several forms of prejudice including racism and sexism, as well as personality traits, such as the 'Dark Triad'. Research has shown that sexism is a hierarchy enhancing myth that maintains inequality between men and women, such that men hold disproportionate power over women.

The present thesis explores how SDO relates to perceptions of and perpetration of sexual aggression. Chapter 1 presents an overview of the literature and argues that there is conceptual overlap between many of the tenets of SDT and the Confluence Mediational Model (CMM) – an empirical model of male sexual aggression. Men occupy a position of dominance and so are higher in SDO than women and are typically motivated to maintain their hierarchical position. Sexual aggression may be one such method of maintaining dominance, however, there exists more subtle methods, including coercive control (as in intimate partner violence and stalking), or through hierarchy enhancing institutions, which can control female legal, social and reproductive rights. Chapter 2 presents a systematic review and meta-analysis of the extant literature examining SDO and attitudes supportive of violence towards women (ASVAW), as well as related

variables. The findings demonstrate a strong relationship between SDO and the acceptance of sexual aggression myths (which appears ubiquitous across Western samples), however there is less conclusive evidence for how SDO relates to the *perpetration* of sexual aggression. Chapter 3 presents a case study of a man convicted of sexual offending and on license in the community and follows his progress through a sexual offending treatment over a 12-month period. This found that treatment slightly reduced recidivism risk and hostile masculinity, but that SDO scores remained stable across the period. Chapter 4 details an empirical study which examines how SDO relates to perceptions of ex-partner stalking and explores the role of gender-role identity. The findings found that high SDO related to being male, perceptions that mitigate stalking (PMS) and masculinity, however gender-role identity did not moderate the relationship between SDO and PMS as predicted. Chapter 5 presents a psychometric critique of the Bem Sex Role Inventory (BSRI) – which was the measure of gender-role identity in Chapter 4 – and concludes that there are validity issues that affect male and female differentiation on dimensions of masculinity and femininity, which may have contributed to the lack of expected results in Chapter 4.

The final chapter synthesises the findings and discusses the applied and theoretical implications of the thesis, concluding that whilst SDO may act as a distal risk factor for sexual aggression, it does not appear sufficient in predicting it without the contribution of more proximal aspects detailed in the CMM, such as hostile masculinity. There are implications for how agents of the criminal justice system may prevent justice to victims of sexual violence by mitigating the seriousness of reported violence. This is also considered within the context

of gender-role identity and how heteronormative scripts might further impact one's perceptions of sexual aggression.

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Chapter One: Overview

Introduction

This thesis argues that within patriarchal societies, the disproportionate power that men have over women is legitimised through socially dominant and hierarchy enhancing institutions and sets the scene for the emergence of coercively controlling behaviours at both the individual level (e.g. through stalking behaviours and other forms of sexual aggression) and institutional level (e.g. controlling women's reproductive rights in law). High social dominance orientation (SDO) therefore acts as a distal precursor to forms of sexual aggression towards women, whilst proximal factors such as Hostile Masculinity will govern whether an individual actually engages in the violent behaviour. Social Dominance Theory specifically may relate to ex-partner stalking – a set of behaviours often characterised by dominance and threat but which does not necessitate physical violence. In the absence of proximal individual factors the influence of SDO is of interest because it will likely affect how individuals *perceive* sexual aggression and it's acceptability. Traditional gender roles in which men are socialised to be more dominant than women are thought to contribute to a socially dominant worldview, which may precipitate one's (in)ability to recognise violence against women.

This is of importance when considering how victims of sexual aggression are treated within hierarchy enhancing institutions such as the criminal justice system. Specific examples where this is important include allegations of rape when the question of fact relates to issues of consent; and to cases involving ex-partner stalking, which often comprises ostensibly normal behaviours and in which observers may not recognise the extent of the seriousness or potential harm of the behaviour.

Social Dominance Theory

Within relatively stable economic societies Social Dominance Theory (SDT) (Sidanius & Pratto, 1999) argues for the presence of three hierarchical systems: a) age - that adults have disproportionate power over children; b) sex – that men have disproportionate power over women, and c) arbitrary set; that societies will create arbitrary hierarchical social categories (e.g. class and race). These systems are qualitatively different in their level of flexibility, i.e. in the definition of the dominant/subordinate categories; in the level of violence or coercion used to maintain the hierarchy; and in the focus of their control (i.e. the directionality). For example, the dominant position in age, and sex-based systems is always adults, and men respectively. However, in arbitrary systems one group may be dominant in relation to another but subordinate in relation to a third group. For example, the relationship between different ethnic groups within caste systems. Since it's development SDT has been shown to relate to several prejudicial behaviours and attitudes towards certain groups, including but not limited to, support for the death penalty and torture (Gerber & Jackson, 2013), the dehumanization of marginalised groups (Costello & Hodson, 2011), and self-reported engagement in violence against immigrants (Gordon, 2022). Adolescents whose parents are high in social dominance and who emphasise the value of power and wealth are likely to develop high levels of SDO (Duriez, Vansteenkiste, Soenens, & De Witte, 2007) and may be more likely to use relational aggression to secure social capital amongst peers (Mayeux, 2014).

Social Dominance Theory posits that group based social hierarchies, inequalities and oppression are maintained through 'legitimising myths' that serve to either enhance or attentuate the established hierarchy (Sidanius & Pratto, 2001). Typically, those in the more dominant position will support *hierarchy enhancing* legitimising myths (e.g. sexism, racism, beliefs in a just world), whilst those in the more subordinate position will support *hierarchy attenuating* myths (e.g. feminism, socialism, egalitarianism). However, within economically stable societies, SDT argues that there will be "greater ideological consensus, rather than dissension across group" (Pratto, Sidanius, & Levin, 2006, p. 276)

Institutions can also become either hierarchy-enhancing or hierarchy attenuating and can promote discrimination and inequality based on their allocation of resources. For example, powerful corporations may allocate their accumulation of wealth in such a way as to maintain hierarchy and perpetuate inequality by for example, diverting tax arrangements away from local economies or by fighting protracted legal cases when accused of corporate recklessness. The relative power of these institutions means that resources can be spent on disseminating hierarchy-enhancing ideologies that justify their dominant position and result in the socialisation of individuals who then internalise the same dominant group ideologies (Fischer, Hanke, & Sibley, 2012).

Criminal Justice Systems as Hierarchy-Enhancing Institutions

Within SDT, criminal justice systems are an important hierarchy-enhancing institutions, with those imprisoned disproportionately more likely to be from more subordinate groups. For example, Sidanius (1988), in an analysis of 32000

felony cases in the US found that whilst controlling for variables such as charge severity and degree of legal counsel, black defendants were disproportionately more likely to receive harsher prison sentences than white counterparts. Recent statistics on police use of force in the UK show that black people were 3.5 times more likely to experience use of force than their white counterparts (Home Office, 2022). The continued treatment of marginalised groups – especially black people – by aspects of the criminal justice system has been thrust into the spotlight following the police killing of George Floyd in 2020. Within the UK, the Metropolitan police has been recently criticised by the Independent Office for Police Conduct (IOPC) for its treatment of women in the wake of the rape and murder of Sarah Everard by a serving police officer, and reports of widespread sexism and misogyny (IOPC, 2022). In an analysis of police force culture, Loftus (2008) notes that despite the emergence of a greater respect for diversity and gendered identities, change within the UK Police force is undermined by a resentful discourse propagated by a dominant majority of white, heterosexual, male officers.

The process by which hierarchy-enhancing organisations may resist change and reform is discussed by Haley and Sidanius (2005) who note that individuals typically match with institutions that share the same socio-political ideologies, such that socially dominant individuals thrive in congruent hierarchy-enhancing environments. Gatto, Dambrun, Kerbrat, and De Oliveira (2010), when examining prejudice within a population of French police proposed a dual process of (recruit) selection and socialisation that maintains the status quo.

Social Dominance Orientation (SDO)

Social Dominance Orientation (SDO) is the measurable dimension of SDT that indicates the degree to which people endorse hierarchy legitimising or attenuating myths such that those high in SDO are more supportive of legitimising myths and group-based inequality. It follows that those in a position of dominance will seek to maintain their positions of dominance and so will typically produce higher SDO scores than subordinate groups (Sidanius, Levin, Liu, & Pratto, 2000). Some researchers have further conceptualised SDO as comprising two components: SDO – Dominance (SDO-D) – a preference for systems of dominance whereby high-status groups forcefully oppress lower status groups; and SDO-Egalitarianism – a preference for systems of group-based inequality that maintain anti-egalitarianism through hierarchy enhancing ideologies and social policies (Ho et al., 2015), although it is most commonly operationalised as a single dimension. Social Dominance Orientation has been shown to predict a number of hostile and prejudicial attitudes including but not limited to sexism, racism, nationalism, political conservatism, opposition to immigration as well as endorsement of policies that maintain status hierarchies and oppose equality between social groups (See Pratto et al., 2006 for a review).

SDO and Aggression

SDO has been shown to relate to overt forms of aggression and violence. For example, Gordon (2022), in a sample of the South African general public, found SDO related to anti-immigrant attitudes in addition to self-reported engagement

in violent discriminatory behaviour. Similarly, Mulla et al. (2019) found that men who believe that intimate partner violence (IPV) was more common amongst their in-group (e.g. male friends) were more likely to self-report engaging in IPV. This relationship was significantly moderated by SDO, such that high SDO individuals who perceived IPV as a norm amongst their in-group were more likely to perpetrate and view IPV behaviours as acceptable.

Factors affecting SDO

Pratto et al. (2006) highlight how SDO is broadly influenced by five factors: group position; social context; stable individual differences; gender; and socialisation. As detailed above, the relative group position and context will affect an individual's SDO depending on where they are positioned in the hierarchy. Whilst SDO has been demonstrated to be stable in longitudinal studies (van Laar, Levin, & Sidanius, 2008), researchers have also shown that it can be primed when presented with a scenario where individuals consider their social group in relation to another (Levin, 1996). With regards to individual differences, research has shown SDO to be negatively related to empathy, the Big Five personality factors 'openness to experience' and 'agreeableness', as well as morality, cooperation and sympathy (Heaven & Bucci, 2001; Ekehammar, Akrami, Gylje, & Zakrisson, 2004). Social Dominance Orientation positively correlates with the 'Dark Triad' personality traits of psychopathy, Machiavellianism and narcissism (Jones & Figueredo, 2013). Wilson (2003) examined SDO in relation to ethical ideology finding that high SDO was negatively correlated with moral idealistic attitudes and that SDO was less strongly related to moral relativism. The results led the authors to suggest that

those high in SDO might be "ruthless in their pursuit or maintenance or their desires" (p.555) and draw comparisons between SDO and Machiavellianism, in relation to the pursuit of personal power.

SDO and Gender

Social dominance research consistently finds that men produce higher scores than women (Levin, 2004; Pratto et al., 2006) - a phenomenon termed the *invariance hypothesis* - and SDT argues that men and women are socialised in such a way that men will typically occupy hierarchy-enhancing roles and women will typically occupy hierarchy attenuating roles (Sidanius & Pratto, 2001). However, this hypothesis has drawn criticism from some researchers who argue that this effect diminishes when accounting for the mediating role of values (Caricati, 2007) or of gender group identification (Wilson & Liu, 2003).

The basis for gender differences SDT argues, lies in the evolutionary differences between men and women and the fact that society has organised itself according to the fundamental differences between sexes in terms of reproductive labour, drawing on Trivers (1972) parental investment theory. This has led to the development of roles in modern societies where customs dictate that women spend more time caring for children and family, whilst men have greater freedom to function outside of the family unit. Whilst there has been movement to narrow the gap between sexes in the cost of raising children, institutions such as marriage laws and parental leave still maintain this power differential. Criticism of this perspective has suggested that this phenomena is not an evolutionary reason but one of gender socialisation (e.g. Eagly, 1987). Whilst

SDT theorists argue for an evolutionary perspective they accept that both evolutionary and socialisation processes may contribute to the observed gender differences (Sidanius, Cotterill, Sheehy-Skeffington, Kteily, & Carvacho, 2017).

SDO and Gender-Inequality

Within patriarchal societies, gender inequality is maintained through the hierarchy enhancing myths of sexism, and gender role stereotypes (Pratto et al., 2006). Men, who have disproportionate power over women, maintain their dominant position in the hierarchy by asserting control over women's financial freedom, bodily autonomy, and reproductive rights. Dominance over women is often maintained through legal institutions such as in rights to abortion, rights to drive, or rights to display their face in public. Fischer et al. (2012) found that national level SDO scores correlated with institutional determinants, such that societies with more traditional values, greater male domination, and more closed institutional systems showed higher mean levels of SDO at the individual level. The mean SDO of China (M = 35.75), compared to New Zealand (M = 26.74) gives some indication of this difference.

Social Dominance Orientation has also been shown to interact with ingroup identification such that there is a strong positive correlation between SDO and ingroup identification amongst those in a dominant group position but a negative correlation amongst those in a subordinate group position (Levin & Sidanius, 1999; Sidanius, Pratto, & Rabinowitz, 1994) – what the authors term *ideological asymmetry* (Sidanius & Pratto, 2001). In practice, this means that both dominants and subordinates support the status quo in stable societies where

they perceive the hierarchical order to be legitimate. For example, a large scale study in New Zealand found that SDO was a significant predictor of benevolent sexism (ostensibly positive evaluations, but which serve to maintain gender inequality, e.g. 'women, compared to men, tend to have greater moral sensibility') amongst men and women and that this effect was stronger in women (Radke, Hornsey, Sibley, & Barlow, 2018). The authors conclude that women high in SDO endorse benevolent sexism through a process of perceiving women's lower status within the social hierarchy as legitimate and subsequently perceive a need for a greater protection from men.

Feminist Perspectives of the CJS

The SDT perspective that the CJS is a hierarchy-enhancing institution is supported by feminist perspectives highlighting the negative experience of female victims and the continued prevalence of rape myths which may block justice and maintain status quo.

Rape myths have been conceptualised as having a cultural function of maintaining the patriarchal status quo and the domination and control of women (Burt, 1980; Lonsway & Fitzgerald, 1994). Edwards, Turchik, Dardis, Reynolds, and Gidycz (2011) discuss how rape myths are present at the institutional level in legal, religious and media institutions and point to the patriarchal structure of such institutions as a determinant. In an analysis of police officer decision making in rape cases, O'Neal (2019) concluded that "it is evident that societal rape myths have permeated law enforcement agencies" (p.22). This affects officer decision making when assessing the credibility of complainants and

subsequently, whether allegations are advanced through the justice system. Murphy and Hine (2019) make a similar comment when examining RMA in a sample of UK police officers. They note that officer decision making may be influenced by attitudinal variables (including RMA) which affects anticipatory bias, such that they consider the prosecutors response to the investigation, and the likelihood of a case successfully going to trial. Whilst they found that RMA was generally low amongst police officers, they found it to be strongly predicted by being male, although the effect of gender was diminished when accounting for gender-socialisation variables.

The pervasiveness of rape myths within the criminal justice system has been well documented within the feminist literature (Lees, 2002; Gregory & Lees, 1996; O'Keeffe, Brown, & Lyons, 2013; Smith & Skinner, 2012, 2017). This body of research highlights how rape myths including beliefs that the victim did not put up a struggle, was not physically harmed or that they are responsible for the perpetrators behaviour result in high rates of case attrition and/or re-traumatisation throughout the justice process. Smith and Skinner (2017) in a discourse analysis of sexual assault trials found that, whilst there are instances of challenging rape myths within the court room, both prosecution and defence barristers perpetuated rape myths if doing so helped them to advance their point and aid them towards 'winning'.

Smart (1992) in the early 90's discussed how the CJS is inherently sexist, male, and gendered. Whilst acknowledging that legal processes attempt to reach an 'objective' version of 'truth', the fact that most agents within the system were male meant that such 'objectivity' is based on masculinised values and therefore

represents a partial worldview (Smart, 2002). Subsequently, in legal evaluation of how a 'reasonable' person might act, the test is skewed towards a patriarchal worldview which enshrines 'Rationalist Tradition' as the ultimate form of knowing (Nicolson, 2013) at the exclusion of alternative (e.g. feminine) perspectives (Smith & Skinner, 2017). Shelley, Morabito, and Tobin-Gurley (2011) draw on Acker's (1992) theory of gendered institutions to explain how policing institutions use a variety of methods to maintain gender inequality, such as the legitimisation of hegemonic masculinity, control and segregation, 'doing gender' and the construction of gendered personas.

It is important to highlight that the CJS has diversified in recent years and female representation has increased since 2018, with women currently making up 33% of police officers, 39% of barristers and 35% of judges in the UK (Ministry of Justice 2022). Despite these improvements however, women remain significantly underrepresented and the CJS is likely to continue as a hierarchy-enhancing institution that perpetuates gender-inequalities.

Confluence Mediational Model

The Confluence Mediational Model (CMM) (Malamuth & Hald, 2016) was developed as an empirical multifactorial framework in the prediction of sexual aggression in non-convicted populations. Its theoretical underpinnings draw on both evolutionary and feminist perspectives (Malamuth, 1996) and it has been developed and refined through a series of empirical studies spanning the last 45 years (e.g. Malamuth, 1986; Malamuth, Sockloskie, Koss, & Tanaka, 1991; Malamuth, Linz, Heavey, Barnes, & Acker, 1995; Malamuth, Hald, & Koss, 2012)

which highlight both general and specific risk factors that contribute to sexual aggression (Malamuth et al., 2021).

Core Constellations

The CMM posits that there are two core risk factor constellations that contribute to sexual aggression: Impersonal Sex (IS) and Hostile Masculinity (HS). Impersonal Sex comprises risk factors contributing to the development of detached sexual relations and promiscuity. These may develop within an abusive or violent home environment which promotes the "accelerated adoption of adult roles" (Malamuth, Heavey, & Linz, 1996, p. 24) and the derivision of self-esteem from sexual conquest, which is reinforced through antisocial or delinquent peer relationships (Malamuth et al., 2021). Hostile Masculinity is the constellation of risk factors that leads to the development of a hostile and dominant orientation towards women – an orientation that can develop within societies and subcultures that emphasise 'masculinity' as defined by power and dominance and may socialise men towards the expression of sexual aggression (e.g. Malamuth et al., 1991). The internalisation of these factors precipitates aggressive and controlling behaviours towards women in both sexual and non-sexual encounters (Malamuth et al., 1996). The confluence or interaction of these constellations constitutes a multiplicative effect on risk in the prediction of sexual aggression. Characteristics of hostile masculinity alone are strong predictors of non-sexual aggression against women (Malamuth et al., 1995; Malamuth et al., 1991).

Hostile Masculinity and Hostile Sexism

Research into hostile masculinity has varied in how it has been operationalised and measured. In a meta-analysis of the components of hostile masculinity, Ray and Parkhill (2021) found significant variability in the components used to comprise the measure although 'hostility towards women' was the most commonly measured component in predicting sexual aggression. Studies also show variability in how hostility towards women is operationalised, although it is frequently measured using the hostile sexism scale of the ambivalent sexism inventory (Glick & Fiske, 1996), the hostility toward women scale (Check, 2014), or some combination thereof (e.g. Lisco, Parrott, & Tharp, 2012; Murphy & Hine, 2019). Chapter 2 includes studies which measure hostile sexism as this was the common measure used in the extant SDT literature. However whilst hostile sexism may comprise an aspect of hostile masculinity there are subtle differences in how they were originally defined. Hostile masculinity represents a hostile orientation towards women provoked by a hatred of and hypersensitivity to rejection from women (Malamuth, 1996). Hostile sexism relates to the ideology that men have greater power over women, an endorsement of traditional gender role stereotypes and hostility towards women who violate these roles or who try to control men through seduction or feminist ideology (Glick & Fiske, 1996; Chapleau, Oswald, & Russell, 2007; Abrams, Viki, Masser, & Bohner, 2003). Contemporary research has however indicated that within the CMM, hostile sexism may have greater predictive validity over hostile masculinity when predicting violence against women (Yucel, Angelone, & Jones, 2022). Further, the SDT literature has shown that hostile sexism is strongly related to SDO (Sibley, Wilson, & Duckitt, 2007).

Secondary Risk Factors

In addition to the core constellations of IS and HM, the CMM highlights distal risk factors which relate to sexual aggression including personality factors such as low agreeableness (Hald & Malamuth, 2015) and psychopathy (Centifanti , Khan, & Cordwell, 2011). The CMM proposes that distal factors that relate to a more general antisocial orientation are mediated by the core constellations in the prediction of sexual aggression. For example, 'Dark Triad' personality traits have been implicated as distal factors in predicting attitudes supportive of rape (Jonason, Girgis, & Milne-Home, 2017). Other secondary factors include low empathy, extreme pornography use and delinquent teenage behaviour (Malamuth et al. 2021). The presence of aggressive sexual fantasies and the use of substances have also been indicated as secondary risk factors in predicting sexual aggression (Malamuth & Hald, 2016). Malamuth et al. (2021) highlight how a general orientation towards an antisocial personality is mediated by the more proximal aspects of HM and IS in predicting sexual aggression. The authors suggest that what differentiates those convicted of a sexual offence compared to those without convictions relate to the strength of this antisocial orientation, i.e. the 'moderate' anti-sociality of non-convicted men may "prelude the development of the more specialised mechanisms" (Malamuth et al. 2021, p. 417).

The Moderation of Dominance/Nurturance

Dean and Malamuth (1997) have found that sexual aggression is moderated by an individual's propensity to be self-oriented (dominant) versus other-oriented

(nurturing). They found that scores on the BSRI moderated risk factors for sexual aggression and whether that individual actually aggresses sexually. They conceptualised the masculine and feminine dimensions of the BSRI as dominant (self-oriented) and nurturant (other-oriented) respectively (in line with other researchers (e.g. Spence, 1983) (See Chapter 4 for a review of the BSRI)), finding that high risk/high dominance individuals were the most likely to sexually aggress, whilst high risk/high nurturance individuals were not likely to sexually aggress. In this research, femininity (nurturance) acted as a protective factor for sexual aggression.

Partner Stalking and Coercive Control

Social Dominance Theory and the CMM relate to men's use of power and control over women. The forms of power and control that men exert over women is vast and includes both institutional processes and structures as well as the direct use of violence and sexual aggression. Partner stalking represents a unique form of intimate partner violence in that it often consists of routine behaviours that may not on their own be considered harmful. However, relationships prior to partner stalking are often characterised by abuse and other forms of control (Logan & Walker, 2009). Whilst *stalking* itself is not physical violence, victims of stalking by an ex-partner are at increased risk of physical violence (Mohandie, Meloy, McGowan, & Williams, 2006) and psychological distress (Sheridan, Blaauw, & Davies, 2003). Logan and Walker (2009) highlight how the level of coercion and potential distress evident in partner stalking is unique in that it often includes relationship history and context which makes it difficult for outside observers to fully appreciate the level of distress involved. In a critical review of theories of

stalking, Davis, Swan, and Gambone (2012) discuss the importance of coercive control theory (Stark, 2007) as a precursor to the behaviour. Stark (2007) defines coercion as "the use of force or threats to compel or dispel a particular response" (p. 228) and control as "structural forms of deprivation, exploitation, and command that compel obedience indirectly" (p. 229), the combination of which result in a "condition of unfreedom" (p. 205). Davis et al. (2012) conceptualise intimate partner violence as entrenched and pervasive patterns of control that curtail the liberties of women within the wider social and cultural context of men's dominance over women. Specifically, Davis et al. (2012) refer to the "broad gendered social forces that grant men a multitude of privileges, including higher wages, greater representation in positions of power in political systems, religious bodies, judicial institutions, corporations, academic institutions, etc." (p. 332). In Chapter 4, this thesis examines SDO in relation to ex-partner stalking as opposed to other forms of violence against women. Whilst the CMM comprehensively explains the mechanisms for sexual violence, the mechanisms for ex-partner stalking are less well defined. Echoing Davis et al. (2012), the mechanisms likely relate to the relative power imbalance between men and women and the wider social and cultural contexts that precipitate this imbalance. Social Dominance Theory captures this wider context of male dominance and so it is anticipated that SDO will impact on one's perceptions of ex-partner stalking behaviours.

Stalking and Gender Socialisation

Langhinrichsen-Rohling (2011) discusses how some stalking behaviour may be considered appropriate or even socially desirable and draws attention to the

impact of gender socialisation scripts in the perception of stalking. Dating scripts within Western cultures typically involve a man who persists with his advances despite the woman's objection. The overcoming of a woman's will and her eventual capitulation is often celebrated as an act of love in popular media that normalise unwanted pursuit behaviours, for example in the movie 'The Notebook'.

The stalking literature also considers the effect of socialisation scripts on female perpetrated stalking. Langhinrichsen-Rohling (2011) highlights how whilst official crime statistics tend to show stalking as a predominantly male perpetrated behaviour, some empirical studies have shown relatively similar rates of stalking perpetration between sexes (Langhinrichsen-Rohling, Palarea, Cohen, & Rohlin, 2002) and that comparable rates tend to emerge when unwanted pursuit behaviours that do not only include aggression and threats of violence are included (Lyndon et al., 2012). Davis et al. (2012) comment that female perpetrators are just as likely to engage in *less serious* forms of behaviour, such as persistent communications and showing up uninvited but are unlikely to be perceived as threatening compared to male perpetrators. The difference, Davis et al. (2012) argue, is that male perpetrators have the support of social systems that legitimise the cultural norm of male dominance over women.

As well as the different tactics employed by male and female perpetrators, social scripts may also impact on the underreporting of female perpetrated stalking behaviours. Langhinrichsen-Rohling (2011) argues that gendered social scripts means that female perpetrators may be viewed as weaker and less dangerous than male counterparts; that male socialisation means male victims may feel

emasculated by reporting stalking; or even that men may be socialised to find unwanted pursuit from women *desirable*.

Rationale for the Present Thesis

There is clear conceptual overlap between the SDT and CMM. Both the SDT and CMM's theoretical underpinnings have an evolutionary basis and Malamuth (1996) refers to SDT as an influence in the development of the CMM. As highlighted above, many of the risk factors identified in the CMM have also been highlighted as correlating with SDO, including low empathy (Malamuth et al., 2021; Heaven & Bucci, 2001), and several personality characteristics including low agreeableness (Malamuth & Hald, 2016; Ekehammar et al., 2004) and 'Dark Triad' traits (Jonason et al., 2017; Jones & Figueredo, 2013). Malamuth and Hald (2016) highlight how distal factors affect an individuals receptivity to cultural messages aligned with prejudice or hostility towards certain outgroups, whilst HM and IS (especially HM) are the proximal factors that impact the risk of sexual and non-sexual aggression. Both theories were originally conceptualised over 30 years however they continue to generate a wealth of current research and have been refined and revised in response to emerging contemporary research. Social Dominance Theory has responded to criticism levelled at it, and in some cases incorporated it and revised its scope (see Sidanius et al., 2017 for a review). The CMM has continued to develop and refine it's theory and remains one of the most empirically tested models of sexual aggression in the northern hemisphere (Sikweyiya & Gibbs, 2022). Both models were selected for the present research on the basis of their robust empirical supporting literature and continued contemporary currency.

This thesis will examine how SDO relates to perceptions of sexual aggression in the following chapters and will explore the following key questions:

1. Does an orientation towards social dominance affect how individuals perceive sexual aggression and coercive controlling behaviours and predispose one to viewing such behaviours as justified or acceptable?
2. Does an orientation towards social dominance predispose one to the *perpetration* of such behaviours?
3. What is the role of socialisation to traditional gender-role identities on how social dominance relates to perceptions of ex-partner stalking?

Chapter 2 presentes a systematic review and meta-analysis that synthesises the research on SDO and attitudes supportive of violence against women (ASVAW) in male samples. Chapter 3 presents a case study for a man, Mr A, undergoing community treatment for sexual offences against women. Chapter 4 presents an empirical case study that examines how gender-role identity moderates the relationship between SDO and perceptions of fictitious partner stalking scenarios. Chapter 5 presents a psychometric critique of the Bem Sex Role Inventory (Bem, 1974) – a widely used measure of gender-role identity – that is used in the study presented in Chapter 4. Chapter 6 presents a final discussion of the preceding chapters, linking the findings to the theory and suggesting future directions.

Notes on Terminology

Throughout this thesis the terms *sex* and *gender* are used to differentiate different concepts. *Sex* is used to refer to the biological construct which differentiates male from female humans and relating to the reproductive differences between the two. *Gender* is used to refer to the cultural and social differences between males and females, but which does not necessarily correspond with biological sex and may be experienced on a spectrum capturing a range of identities. Within the literature, the terms are used both interchangeably and differentially – depending on author – and so a distinction has been made in the present thesis to avoid ambiguity even if the original author uses an alternative term to imply the same meaning. Exceptions to this which use the original authors language are in quotation marks. For example, Bem (1974) uses the term "sex-typed" to refer to individuals that adhere strongly to their biological sex. Gender socialisation is defined as "the process by which individuals develop, refine and learn to 'do' gender through internalising gender norms and roles" (John et al., 2017, p. 6) and is operationalised through gender-role identity - the degree to which individuals adhere to traditionally 'masculine' or 'feminine' gender roles.

The author wishes to acknowledge that the present thesis primarily concerns the gendered experience of males and females however there is a broad spectrum of individuals who do not identify with male and female gender-role identities or indeed male and female biological sexes, including trans- and other non-binary identities. There is an increasing body of literature highlighting the sexual violence experienced by non-binary individuals which deserves due attention.

The literature base of the present thesis mostly considers binary perspectives of sex and gender and whilst the author attempts to interpret gender inclusively, in the interest of parsimony this binary perspective is likely reflected in the present thesis although the intention is not to diminish non-binary perspectives.

Structure of Thesis

Chapter 2

Chapter 2 presents a systematic review and meta-analysis which examines the relationship between a belief in hierarchical social power relations (Social Dominance) and attitudes supportive of violence against women (ASVAW). The relationship between SDO and hostile sexism (HS) has been the subject of a previous meta-analyses (Sibley et al., 2007) however, to the authors knowledge this is the first review that synthesises the literature examining how social dominance in men relates to wider attitudes that may interfere with men's ability to recognise violence against women, or that may relate to the perpetration of violence against women. Social Dominance Orientation and sexism have both been implicated as constructs that affect one's ability to *recognise* violence against women (Rollero, Bergagna, & Tartaglia, 2019) and so where data was available, how HS relates to SDO and ASVAW was also included, thereby aiming to replicate and extend the results of previous reviews. Consideration was given to the overlap in aspects from both SDT and CMM and how distal factors related to SDO might interact with more proximal risk factors highlighted in the CMM in predicting ASVAW. The understanding of this relationship has implications for how individuals within systems and institutions that are hierarchy-enhancing –

such as the police and courts – view sexual aggression, and consequently how this impacts on victims navigating these institutions.

The key research questions of the systematic review and meta-analysis are:

1. How do men's scores on SDO relate to ASVAW?
2. What is the relationship of other potentially influential factors, e.g. personality variables, adherence to gender role stereotypes, sexual fantasy, pornography use.

Chapter 3

Using a single case study design, Chapter 3 examines SDO and HM scores in a man, Mr A, who is undergoing a 12–18-month community treatment programme for high-risk sexual offenders. Mr A had committed a series of violent rapes, had served time in prison, and was now residing in the community on license under the National Probation Service. Within the context of the CMM, Mr A's early development history would place him at high risk on both the constellations Impersonal Sex and Hostile Masculinity as well as several secondary risk factors, e.g. antisocial personality. Mr A's previous experiences of being a gang member, as well as serving a long prison sentence within a hierarchy enhancing institution would predict that he is also likely to have high SDO. Chapter 3 details Mr A's progress through treatment and measures SDO and HM at 3 time-points, as well as his risk of sexual recidivism, and clinical observations. Discussion focusses on how SDO and HM relate in a man convicted of sexual aggression and discusses

the impact of a treatment programme on both measures, as compared to community samples.

Chapter 4

Chapter 2 identified how men high in SDO are more likely to dismiss the seriousness of rape and intimate partner violence and may be more likely to use coercive tactics to obtain sex or perpetrate online sexual harassment. Chapter 4 examines how SDO relates to perceptions of ex-partner stalking through the medium of gender-role identity in a community sample. Stalking is a significant risk factor for the perpetration of violence and despite the level of distress and harm that it can cause, it has no precise legal definition and often consists of ostensibly 'normal' behaviours. Stalking behaviours are often romanticised in pop culture and follow heteronormative scripts for dating and courtship (Langhinrichsen-Rohling, 2011). Identifying whether a behaviour is considered harmful or warranting intervention is therefore important within the criminal justice system. For comparison, this research study also examined perspectives of female perpetrated stalking. Within patriarchal societies where men have disproportionate power over women then one would expect those high in SDO to view stalking within the frame of heteronormative courtship – with a persistent male, and gatekeeping female – and therefore be less likely to perceive stalking as harmful. The degree to which individuals have masculine or feminine gender-role identities is hypothesised to moderate this relationship. Identifying how these constructs relate has implications for how victims of stalking are treated within the criminal justice system, that may fail to adequately perceive the risk of violence that may be present in stalking.

The primary hypotheses of the study are:

H1: Men will score higher on SDO than women.

H2: Masculinity will predict higher SDO in men and femininity will predict lower SDO in women.

H3: The relationship between SDO and Perceptions that Mitigate Stalking (PMS) will be moderated by gender-role identity.

a. In men, masculinity will increase PMS scores.
b. In women, femininity will decrease PMS scores.

H4: Scores on PMS will be higher for both sexes in the atypical female-male scenario compared to the prototypical male-female stalking scenario.

H5: There will be a negative correlation between PMS scores and participants perceptions of intended distress.

Chapter 5

Chapter 5 presents a psychometric critique of the Bem Sex Role Inventory (BSRI) (Bem, 1974), which is used in Chapter 4. The BSRI is perhaps the most widely used measure of gender-role identity and has been evaluated several times since its inception, although not within the last 15 years. It is therefore likely that a further critique is warranted, especially when considered alongside

modern cultural shifts in attitudes towards male and female roles. For example, the #MeToo movement and wider criticism of patriarchal institutions. Alongside an overview of the measure and a review of previous critiques, the present chapter reviews the structural validity of the BSRI using the same sample in Chapter 4 (N = 215) and interprets the results considering previous critiques and within the theoretical basis upon which it was originally developed.

Chapter 6

Chapter 6 synthesises the findings from the preceding chapters and considers them together within the theoretical framework of SDT. Implications are considered for theory as well as application to how individuals perceive victims of sexual aggression, especially stalking victims. Limitations of the thesis will be discussed and directions for future research suggested.

Chapter Two: The relationship between beliefs in hierarchical social power relations and attitudes supportive of violence against women: A systematic review and meta-analysis.

Abstract

Social Dominance Theory (SDT) posits that belief in gender hierarchy and inequality is maintained through 'legitimising myths' such as sexism, and that Social Dominance Orientation (SDO) may act as a precursor to an individual's ability to recognise violence against women. Malamuth's Confluence Mediational Model (CMM) posits that distal factors including prejudice towards certain outgroups may combine with Hostile Masculinity to predict attitudes supportive of violence against women (ASVAW). The present systematic review and meta-analysis synthesises overlapping concepts from both theories to highlight the relationship between SDO and ASVAW. A search was conducted across databases including MEDLINE, EMBASE and PsychInfo, as well as non-English and grey literature resources. Meta-analysis was used to synthesise findings from 21 samples in 17 studies. Results indicate moderate-strong effect sizes between the primary outcomes SDO and ASVAW as well as between Hostile Sexism and both SDO and ASVAW. Additional 'Dark Triad' personality variables had strong relationships with each primary outcome. Results were not significantly moderated by study level variables including sample type and country of publication, suggesting a universally strong effect. There is evidence to suggest that belief in group inequality increases the risk of ASVAW, and precedent to suggest conceptual overlap between SDT and CMM. Limitations include high heterogeneity and a small number of studies in some comparisons. All included studies were from the United States or Western Europe and there was a lack of high-quality unpublished research. Future research might examine the precise mechanism by which SDO relates to ASVAW.

Introduction

The personal, social, and public health consequences of violence against women are significant. Across cultures, women are disproportionately more likely to be killed by their partners (Reed, Raj, Miller, & Silverman, 2010) and female victims of coercive sexual practices are at increased risk of health issues such as HIV and chronic pelvic pain (Heise, Ellsberg, & Gottmoeller, 2002). Victims are also at more susceptible to engaging in a variety of risk-taking behaviours such as substance abuse, lower contraceptive use and prostitution (Widom & Kuhns, 1996). Concerningly, violence against women does not appear to be confined to a subset of men. Widman, Olson, and Bolen (2013) found highly comparable rates of self-reported sexual assault between community samples and samples of convicted sex offenders and general hostility towards women and rape myth acceptance were stronger predictors of sexual assault within the community sample.

Flood and Pease (2009) highlight that the prevention of violence against women must target attitudinal change alongside structural norms and wider social practices. Malamuth et al. (2012) define attitudes supportive of violence against women as ‘‘positive affective responses to acts such as rape, other types of sexual aggression, and partner violence; evaluative cognitions justifying these acts; and behavioural predispositions or attractions toward such aggressive acts’’ (p. 428).

The CMM of sexual aggression posits that men with distal hostile or prejudicial antecedents may be at higher risk of commiting violence against women when

coupled with aspects of hostile masculinity. This review will therefore synthesise the research that looks at the relationship between men's beliefs oriented to group hostility and prejudice (SDO) and ASVAW. The link between SDO and hostility to women in the form of hostile sexism (HS) is well established and has been highlighted in previous meta-analyses (e.g. Sibley et al., 2007) however, to the authors knowledge no such meta-analysis has looked at how SDO relates to other broader ASVAW. The present review will fill that gap. Where hostile sexism is measured it will also highlight the relationship between SDO and HS as in previous meta-analyses, as well as between HS and ASVAW.

The CMM literature identifies additional secondary risk factors as relating to ASVAW, including personality variables (e.g. Jonason et al., 2017), pornography use (Malamuth et al. 2021), and aggressive sexual fantasies (Malamuth & Hald, 2016). Where these are reported in included studies they were included in the present analysis. The CMM also identifies high masculinity/dominance as measured using the Bem Sex Role Inventory (Bem, 1974) as a moderating factor for sexual aggression (Dean & Malamuth, 1997), therefore adherence to gender role stereotypes is included as a secondary outcome measure in the analysis.

Social Dominance Orientation (SDO)

Beliefs in hierarchical social power relations can be explained by Social Dominance Theory (SDT) (Sidanius & Pratto, 1999) which posits that group based hierarchies are maintained by the degree to which people believe in hierarchy enhancing myths that legitimise established hierarchies and

inequalities, e.g. sexism and racism (Pratto, Sidanius, Stallworth, & Malle, 1994). Whilst authors of SDT originally conceptualised SDO as a personality dimension (e.g. Sidanius & Pratto, 1999), recent research suggests that it is more consistent with being conceptualised as a social attitude (Duriez, Van Hiel, & Kossowska, 2005; Feather & McKee, 2008). Social Dominance Orientation correlates positively with 'Dark Triad' personality dimensions (narcissism, Machiavellianism, and psychopathy) (Paulhus & Williams, 2002) and is associated with a range of negative attitudes towards women, including gender inequality and sexism (Pratto & Walker, 2004).

SDO and Sexism

Sexism includes beliefs, attitudes and behaviours that reflect negative evaluations of individuals based on gender or support unequal status between genders (Swim & Hyers, 2009). The association between SDO and sexism has been observed at the individual (Sibley et al., 2007) and societal level (Fischer et al., 2012). Social Dominance Orientation and sexism have been implicated as constructs that directly affect an individual's ability to recognise violence against women (VAW) (Rollero et al., 2019) as well as mechanisms that predict behavioural VAW (Berke & Zeichner, 2016). Specifically, SDO has been shown to correlate strongly with hostile sexism (Sibley et al., 2007) which encompasses blatant negative evaluations of women, typically directed at those who violate traditional gender norms, as opposed to benevolent sexism which encompasses more subtle evaluations, such as beliefs that women need protection from men. Across cultures, hostile sexism has been positively associated with a range of attitudes supportive of VAW such as rape victim blaming (Viki & Abrams, 2002)

negative attitudes towards wife abuse (Glick, Sakalli-Ugurlu, Ferreira, & Souza, 2002) and negative attitudes toward domestic violence (Yamawaki, Ostenson, & Brown, 2009).

The Confluence Mediational Model (CMM) and Hostile Masculinity

Not all men that hold sexist views will necessarily go on to behave aggressively towards women and general attitudes are usually poor predictors of single behaviours (Ajzen & Fishbein, 2005). Malamuth and Hald's (2016) Confluence Mediational Model (CMM) explains sexual aggression towards women as a confluence of distal environmental and developmental factors - especially antisocial traits and an orientation towards impersonal sex - meeting 'hostile masculinity'; risk factors comprising general hostility towards women, attitudes supportive of violence towards women and sexually aggressive fantasy. Characteristics of hostile masculinity are also predictive of non-sexual aggression against women (Malamuth et al., 1995; Malamuth et al., 1991).

Malamuth and Hald (2016) suggest a mechanism towards sexual aggression whereby an individual with more general hostile traits may be more receptive to cultural or other messages aligned with prejudice/hostility towards certain 'outgroups'. Combined with the proximal characteristics of hostile masculinity, the risk for sexual and non-sexual aggression towards women is increased (Malamuth & Hald, 2016). Cultures that pride masculinity as comprising of power, dominance and toughness may therefore socialise men towards behaving aggressively towards women (e.g. Smith, Parrott, Swartout, & Tharp, 2015). The extant research varies in how hostile masculinity is operationalised although

studies typically include a measure of hostility towards women. Given the strong prevalence of hostile sexism within the SDO literature, hostile masculinity is operationalised in the present study through a measure of hostile sexism (See Chapter 1 for a review).

Objectives

The primary objective of this systematic review and meta-analysis is to summarise the relationship between men's belief in inequality (SDO) and ASVAW. To this end, the systematic review will answer the following questions:

1. How do men's scores on SDO relate to attitudes supportive of violence against women?
2. What is the relationship of secondary risk factors, e.g. personality variables, adherence to gender role stereotypes, sexual fantasy, pornography use.

The secondary objectives will be to summarise the relationship between SDO and HS as in previous meta-analyses, as well as between HS and ASVAW.

Method

Protocol Registration

A protocol is registered with PROSPERO and can be accessed via PROSPERO ID: CRD42020186440

Eligibility criteria

To maximise the number of studies identified as potentially suitable, liberal inclusion and exclusion criteria were used.

Types of studies

Experimental, quasi-experimental, cross-sectional, and longitudinal studies were included in the review. Qualitative studies were excluded. Studies could use either online or in-person samples and could be in any language Non-English studies were translated using Google Translate. Google Translate is a reasonable option for including non-English articles and reducing publication bias (Balk, Chung, Chen, Chang, & Trikalinos, 2013), although it is likely to increase errors at the point of data extraction. To help counterbalance this, this was considered as an item at the point of quality control.

Participants and setting

Only male participants were included. Studies included either adults or adolescent participants but only studies where male data could be extracted were retained. The World Health Organisation recognises adolescence as starting as 10-19 (World Health Assembly, 2011) therefore 10 years old was the lowest age included. However, there was no exclusion criteria on the age of the target/recipient of violence. Any setting type was included.

Exposure

Socially dominant beliefs were operationalised using the measure Social Dominance Orientation (SDO) and so only studies explicitly measuring SDO using the SDO scale were included. Social Dominance Orientation has recently been reconceptualised as comprising of two dimensions (SDO-D & SDO-E) (Ho et al., 2015). Studies using both univariate and bivariate measures of SDO were included. Comparisons were between SDO scores and outcome measures. Where studies used bivariate measures of SDO, in addition to comparing the composite SDO score against outcomes, each SDO subscale was compared against outcomes whilst controlling for the other. Interaction effects between outcome measures were also compared.

Outcomes

Studies were included where it is clear the basis for the supported violence is related to the female gender of the target. On this basis, studies explicitly looking at transgender and other LGBT populations that also experience gender-based violence were excluded.

Studies were included where they have measured at least one form of ASVAW (e.g. rape myth acceptance, attitudes towards intimate partner violence, attitudes towards stalking etc.) using a self-report instrument. Where a study measured 'hostile sexism' it must also measure an additional ASVAW to be included. Attitudes supportive of violence against women were defined as ''positive affective responses to acts such as rape, other types of sexual

aggression, and partner violence; evaluative cognitions justifying these acts; and behavioural predispositions or attractions toward such aggressive acts" (Malamuth et al., 2012, p. 428).

Information sources

Literature search strategies were developed using medical subject headings (MeSH) and text words relating to social dominance and violence towards women. Searches were made of the following databases: MEDLINE (via Ovid, 1946 onwards), EMBASE (via Ovid, 1974 onwards), APA PsychInfo (via Ovid, 1806 onwards), Applied Social Sciences Index and Abstracts (ASSIA) (via ProQuest, 1987 onwards), National Criminal Justice Reference Service (NCJRS) (via ProQuest, 1975 onwards) and Scopus. A search of LILACS (Latin American and Caribbean Health Sciences Literature) was conducted to help reduce language bias. A search of grey literature was also conducted via ProQuest Dissertations & Theses A&E (1743 onwards) and DART Europe. Initial searches were made on 15th May 2020. Search alerts for all databases were set to identify recently published studies monthly up until 15th June 2021. Reference lists of eligible studies and review articles were scanned for further relevant studies.

Search strategy

Searches were conducted in English although studies were not excluded on the basis of language. Where studies were not in English, translations were made with Google Translate. The specific search strategy was reviewed by a University

of Nottingham Librarian with expertise in systematic review searching. A sample of APA PsycInfo database search terms includes:

"social dominance orientation.mp." OR "SDO.mp."
AND "Intimate partner violen*.mp." OR "domestic violen*.mp.".

The Boolean operator "*" is used to cover search variations, e.g. "violent/violence". The full strategy can be found in Appendix A.

Study records

Data management was via Rayyan QCRI (Ouzzani, Hammady, Fedorowicz, & Elmagarmid, 2016). Titles and abstracts were independently systematically screened against the inclusion criteria by two reviewers: the main author of this review and a colleague working in the same field. Where it was clear studies do not meet inclusion criteria at this stage they were excluded. Disagreement was resolved through discussion. Full text reports of all titles and abstracts of remaining studies were obtained and the full-text report was again independently screened against inclusion criteria by two reviewers. Disagreement was resolved through discussion. Reasons for exclusion of full texts were documented. The reviewers were not blind to journal titles, study authors or institutions.

Data collection process

Extracted data was documented using Microsoft Excel. Data was extracted independently by two reviewers: the main author of this review and a colleague working in the same field. Disagreements were resolved by discussion. Where data was not available in the full text, it was requested directly from study corresponding authors.

Data items

The primary outcomes were the bivariate correlations between measures of SDO and measures of ASVAW. Secondary outcomes were bivariate correlations between measures of hostile sexism (HS) and SDO, and between HS and ASVAW. Correlations with HS were extracted only where studies included an additional measure of ASVAW.

Where there were at least 2 studies that included another measure known to be related to attitudes supportive of violence towards women (e.g. personality variables, gender role stereotypes, sexual fantasy, pornography use), bivariate correlations between these items and SDO, HS and ASVAW were also extracted

Study information extracted include year of study, participant mean age, country of study, language of study, design type, sample type and publication status. Type of ASVAW was also extracted. Reliability statistics for each measure were extracted.

Quality Assessment

To assess for possible risk of bias the studies were assessed using the Joanna Briggs Institute Quality Appraisal Tool for Analytical Cross-Sectional Studies. (Moola et al. 2017). The tool was adapted for this specific review and covered bias in the following areas: selection bias, study design, confounders, data collection methods, attrition, and analyses. The tool yields ratings of strong moderate or weak in each category. Additionally, language bias was included as an item where a study had been translated using Google Translate. Bias was rated by two reviewers and disagreements resolved by discussion. Studies received a score out of 7. Studies receiving a score of 3 or less were classified as 'low quality' and were excluded from the primary meta-analysis. A sensitivity analysis including 'low quality' studies was planned but not performed due to missing sample sizes.

Meta Analytical Strategy

A primary meta-analysis was conducted on the relationships between SDO-ASVAW. Given the relatively large proportion of studies that also included hostile sexism (k = 11), secondary meta-analyses were conducted on the relationship between HS-ASVAW and SDO-HS. Meta-analyses of extracted bivariate correlations was conducted using R software (R Development Core Team, 2013). Random effects meta-analyses used the Schmidt and Hunter method (Schmidt & Hunter, 2015) and were performed with the R software package 'psychmeta' (Dahlke & Wiernik, 2018). This method can adjust for, and attenuate study artifacts associated with sampling and measurement error, amongst others. Adjusted effect sizes were reported along with standard deviations and credibility intervals which will give an indication of heterogeneity.

The standard error and hence significance of a correlation was determined by examining whether the 95% confidence interval of the estimated true value differs from 0. Additionally, to gauge the presence of a moderating effect, 80% credibility intervals were calculated along with τ^2 (between-studies variance). A credibility interval that includes 0 and a significant between-studies variance suggests that the presence of a moderating effect is likely (Hunter & Schmidt, 2004). Koslowsky and Sagie (1993) highlight that the inclusion of 0 within credibility intervals is insufficient for determining the presence of a moderating effect and that the credibility interval margin should be examined. They suggest intervals of larger than 0.11 may be indicative of the presence of a moderator.

Pre-specified moderator analyses examined the impact of type of ASVAW on the primary and secondary outcomes. Planned sensitivity analyses were conducted for extracted study information including country of study, sample type and publication status. Study design was homogenous across included studies and so no sensitivity analysis was necessary. All included studies used the SDO-Full scale and hence comparison of SDO subscales (SDO-E, SDO-D) was not necessary.

Results

Literature search

The electronic literature search identified a total of 2842 studies, whilst 7 studies were identified through other sources (see Figure 1). Following removal of 530 duplicates, titles and abstracts were screened against inclusion criteria resulting in the removal of 2212 studies. The full text of the remaining 107 articles was

assessed against eligibility criteria resulting in 17 to be included for qualitative and quantitative synthesis. Within the studies to be included for synthesis, 21 independent samples were identified for inclusion (See Tables 1 and 2 for study characteristics).

Attitudes supportive of violence were measured using a variety of measures (See Tables 2 & 3). Studies were pooled into subgroups where instruments measured similar constructs, yielding 3 subgroups: Coercive Tactics (k = 3), Myth Acceptance (k = 14), and Harassment Perpetration (k = 2).

Risk of bias

Risk of bias in individual assessments was assessed using an adapted form of The Joanna Briggs Institute Quality Appraisal Tool for Analytical Cross-Sectional Studies. (Moola et al. 2017). Two studies were identified as 'low' quality and were excluded from the final meta-analyses. Reliable sample sizes could not be extracted and hence no sensitivity analysis was conducted with low quality studies. Table 4 indicates the criteria used for the quality of bias assessment for each study.

Table 1:

Study Characteristics

ID	Study	Year	Design	Country	Language	Publication	ASVAW Type	Study Quality
1	Amayreh	2019	Survey	US	English	Unpublished	Coercive Tactics	High
2	Binkley	2016	Survey	US	English	Unpublished	Rape Myth Acceptance	High
3	Camas & Mese	2016	Survey	Turkey	Turkish	Published	Rape Myth Acceptance	High
4	Canto et al.	2020	Survey	Spain	English	Published	IPV Myth Acceptance	High
5	Fields	2012	Survey	US	English	Unpublished	IPV Perpetration	Low
6	Gerger et al.	2007a	Survey	Germany	English	Published	Rape Myth Acceptance	Med
7	Gerger et al.	2007b	Survey	US	English	Published	Rape Myth Acceptance	Med
8	Hantzi et al.	2015a	Survey	Greece	English	Published	Rape Myth Acceptance	High
9	Hantzi et al.	2015b	Survey	Cyprus	English	Published	Rape Myth Acceptance	High
10	Hockett et al.	2009	Survey	US	English	Published	Attitudes Towards Rape Victims	High
11	Jankowski et al.	2011	Survey	US	English	Published	Rape Myth Acceptance	Med
12	Jones et al.	2014a	Survey	Unclear	English	Published	Coercive Tactics	High

13	Jones et al.	2014b	Survey	Unclear	English	Published	Coercive Tactics	High
14	Lys	2021	Survey	Poland	English	Published	Rape Myth Acceptance	High
15	Pratto et al.	1994a	Survey	US	English	Published	Rape Myth Acceptance	High
16	Pratto et al.	1994b	Survey	US	English	Published	Rape Myth Acceptance	High
17	Salmen & Dhont	2020	Survey	US	English	Published	Rape Myth Acceptance	High
18	Sussenbach	2011	Survey	Germany	English	Published	Rape Myth Acceptance	High
19	Szekeres et al.	2020	Survey	US	English	Published	Dismissal of Sexual Assault	Low
20	Tang & Fox	2016	Survey	US	English	Published	Harassment Perpetration	High
21	Tang, Reer & Quandt	2019	Survey	Germany	English	Published	Harassment Perpetration	High

Table 2:

Study Characteristics and Cohort

ID	Study	Year	N	Age	Age range	Setting/Sample	Measures
1	Amayreh	2019	290	20.8	NR	Students	SDO; HS; SSS
2	Binkley	2016	85	NR	18-24	Student	SDO; IRMA
3	Camas & Mese	2016	149	36.3*	18-68	Representative postal distribution	SDO; HS; AMMSA
4	Canto et al.	2020	90	21.6*	18-33	Students	SDO; HS; AMIVAW
5	Fields	2012	86	21.6	18-53	Student	SDO; CTS
6	Gerger et al.	2007a	83	29.5*	14-99	Online	SDO; AMMSA; IRMA
7	Gerger et al.	2007b	148	29.5*	14-99	Online	SDO; AMMSA; IRMA
8	Hantzi et al.	2015a	83	33.5	18-65	Students (+ Family)	SDO; HS; AMMSA; IRMA
9	Hantzi et al.	2015b	65	38.1	18-72	Students (+ Family)	SDO; HS; AMMSA; IRMA
10	Hockett et al.	2009	52	22.2	NR	Students	SDO; HS; RMA; ARV

11	Jankowski et al.	2011	38	22.2*	18-54	Students	SDO; RMA; DVMAS
12	Jones et al.	2014a	261	30.0	NR	Online	SDO; TOSS; SRP-SF; Mach-IV; NPI-16
13	Jones et al.	2014b	186	30.6	NR	Online	SDO; TOSS; SRP-SF; Mach-IV; NPI-16
14	Lys	2021	120	21.2	NR	Students	SDO; HS; IRMA
15	Pratto et al.	1994a	71	NR	17-35	Students	SDO; HS; RMA; IRMA
16	Pratto et al.	1994b	34	NR	17-35	Students	SDO
17	Salmen & Dhont	2020	244	36.8	19-73	Online	SDO
18	Sussenbach	2011	156	54.7	16-90	Representative telephone interview	SDO; HS; AMMSA
19	Szekeres et al.	2020	NR	NR	NR	Online	SDO; DissSA
20	Tang, Reer & Quandt	2019	574	26.8*	14-39	Online Gamers	SDO; HS; HarassPerp; Psy (NNI); Nar (NNI); Mach (NNI)
21	Tang & Fox	2016	425	23.4	18-55	Online Gamers	SDO; HS; HarrassPerp

Notes:

NR – not recorded

* Mean age of male and female participants as age by sex not reported.

Table 3:

Key to measures used

Construct	Study Measures
Social Dominance Orientation	SDO - Social Dominance Orientation - Full Scale (Pratto et al. ,1994)
Coercive Tactics	SSS - Sexual Strategies Scale (Strang, Peterson, Hill, & Heiman, 2013); TOSS - Tactics to Obtain Sex Scale (Camilleri et al. 2009)
Rape Myth Acceptance	RMA - Rape Myth Acceptance Scale (Burt, 1980); IRMA - Illinois Rape Myth Acceptance Scale (Payne et al., 1999); AMMSA - Acceptance of Modern Myths About Sexual Aggression (Gerger et al. 2007)
IPV Myth Acceptance	AMIVAW - Acceptance of Myths About Intimate Partner Violence Against Women Scale (Megias et al., 2018); DVMAS - Domestic Violence Myth Acceptance (Peters, 2008)
IPV Perpetration	CTS - Revised Conflict Tactics Scale (Strauss et al. 1996)
Attitudes Towards Rape Victims	ARV - Attitudes Towards Rape Victims Scale (Ward, 1988)

Dismissal of Sexual Assault	DissSA - Self Report Sexual Assault Dismissal (Szekeres, 2020)
Harassment Perpetration	HarassPerp - Self Report Harassment Perpetration (Tang & Fox, 2016)
Hostile Sexism	HS - Ambivalent Sexism Scale - Hostile Sexism Items (Glick & Fiske, 1996)
Psychopathy	SRP-SF - Self Report Psychopathy - Short Form (Williams & Paulhus, 2004); Psy (NNI) Naughty Nine Scale - Psychopathy Items (Jonason & Webster, 2010)
Machiavellianism	Mach-IV - Machiavellianism Scale (Christie & Geis, 1970); Mach (NNI) - Naughty Nine Scale - Machiavellian Items (Jonason & Webster, 2010)
Narcissism	NPI-16 - Narcissistic Personality Inventory (Ames, Rose & Anderson, 2006); Nar (NNI) - Naughty Nine Scale - Narcissistic Items (Jonason & Webster, 2010)

Figure 1:

PRISMA flow diagram of identified studies

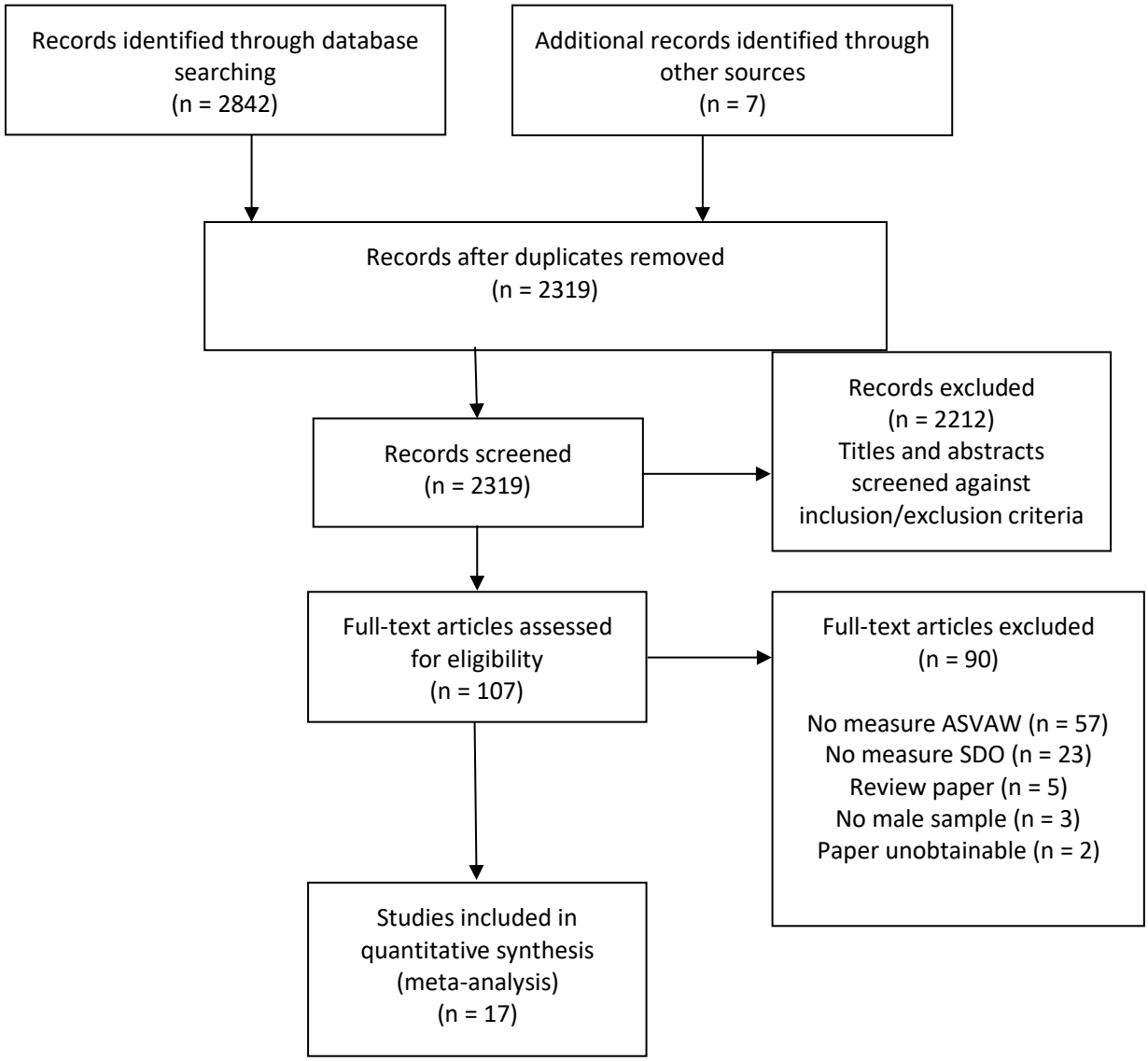


Table 4

Quality of Bias Assessment

Study	Year	Criteria							Score	Rating	Notes
		1	2	3	4	5	6	7			
Amayreh	2019	y	n	y	y	y	y	n	6	High	
Binkley	2016	y	n	y	n	n	y	n	4	Med	Unclear participant numbers. Information reported on excluded cases, but unclear % of males included in data analysis. Low number of males in samples so potentially unreliable statistics. Conservative estimate used.
Camas & Mese	2016	y	y	y	y	y	y	y	6	High	
Canto et al.	2020	y	n	y	y	y	y	n	6	High	
Fields	2012	y	n	n	n	n	y	n	3	Low	Study reports most participants reported no IPV (61-91%). It is unclear what the range here denotes. It is also unclear whether the ensuing analysis is of the entire

										sample of the subsample that experienced IPV. Means are reported that exceed the total value of the scales. Reported SDs for measures of IPV much greater than means suggesting large variability within data.
Gerger et al.	2007a	y	n	y	n	y	y	n	5	Med
Gerger et al.	2007b	y	n	y	n	y	y	n	5	Med
Hantzi et al.	2015a	y	y	y	y	y	y	n	7	High
Hantzi et al.	2015b	y	y	y	y	y	y	n	7	High
Hockett et al.	2009	y	n	y	y	y	y	n	6	High
Jankowski et al.	2011	y	n	n	y	y	y	n	5	Med
Jones et al.	2014a	y	y	y	y	y	y	n	7	High
Jones et al.	2014b	y	y	y	y	y	y	n	7	High
Lys	2020	y	n	y	y	y	y	n	6	High
Pratto et al.	1994a	y	n	y	y	y	y	n	6	High
Pratto et al.	1994b	y	n	y	y	y	y	n	6	High

Salmen et al.	2020	y	y	y	y	y	y	n	7	High	
Sussenbach	2011	y	y	y	y	y	y	n	7	High	
Szekeres et al.	2020	y	y	n	n	n	n	n	3	Low	Analysis of supplementary material suggests selection bias in reported statistics. Study's own moderator analysis suggests significant dropout in High SDO and dismissal sex. assault scores over time not reported in main report. However, study then dichotomises variables by SD and attempts equivalent comparisons across time points, despite significant skew in results. Several outcomes are mentioned as measured but not reported.
Tang, Reer & Quandt	2019	y	y	y	Y	y	y	n	7	High	
Tang & Fox	2016	y	y	y	y	y	y	n	7	High	

Criteria

1 Were the criteria for inclusion in the study clearly defined?

2 Were participant characteristics clearly identified and the sample sufficiently representative of the population?

3 Were constructs to be measured clearly identified and operationalised

4 Where confounding factors were identified, were appropriate strategies used to deal with them? (If n/a mark as 'Y')

5 Were outcomes measured in a valid and reliable way? (Appropriate reliability statistics)

6 Was appropriate statistical analysis used?

7 Was the study translated using Google Translate? (Reverse score)

Outcomes

SDO-ASVAW

Table 5 shows that across 19 studies there was a significant moderate effect size between SDO and ASVAW ($\overline{\rho}$ = .48). However the credibility interval is relatively large (80% CR [.35, .61]) and between-study variance (τ^2 = .009, $p < .05$) suggests the presence of heterogeneity and potential moderating effects. Figure 2 shows a forest plot with confidence intervals for individual studies.

Effect of ASVAW Type. A moderator analysis with ASVAW type as moderator (see Table 5) shows moderate-large true-score correlations for each ASVAW type, and this was strongest between measures of SDO and Myth Acceptance ($\overline{\rho}$ = .55). Fourteen studies measured the relationship between SDO and Myth Acceptance and analysis of confidence intervals and between-study variance (τ^2 = .001, p = .251) suggest a significant degree of homogeneity between samples.

The confidence intervals for 'Coercive Tactics' are wide (95% CI [-.02, .79], and cross the line of null effect indicating no significant relationship between SDO and coercive tactics. Two studies showed a moderate relationship between SDO and harassment perpetration ($\overline{\rho}$ = .45). Although credibility intervals are very small (95% CI [.44, .46]), it is notable that both studies contributing to the 'Harassment Perpetration' subgroup are from the same authors (see Table 1 - ID 20,21) which will likely introduce heterogeneity (Shin, 2009) although this was not calculated due to the small number of studies.

Table 5

Correlation Between Social Dominance Orientation (SDO) and Attitudes Supportive of Violence Against Women (ASVAW) and Moderator Analyses (k min = 2)

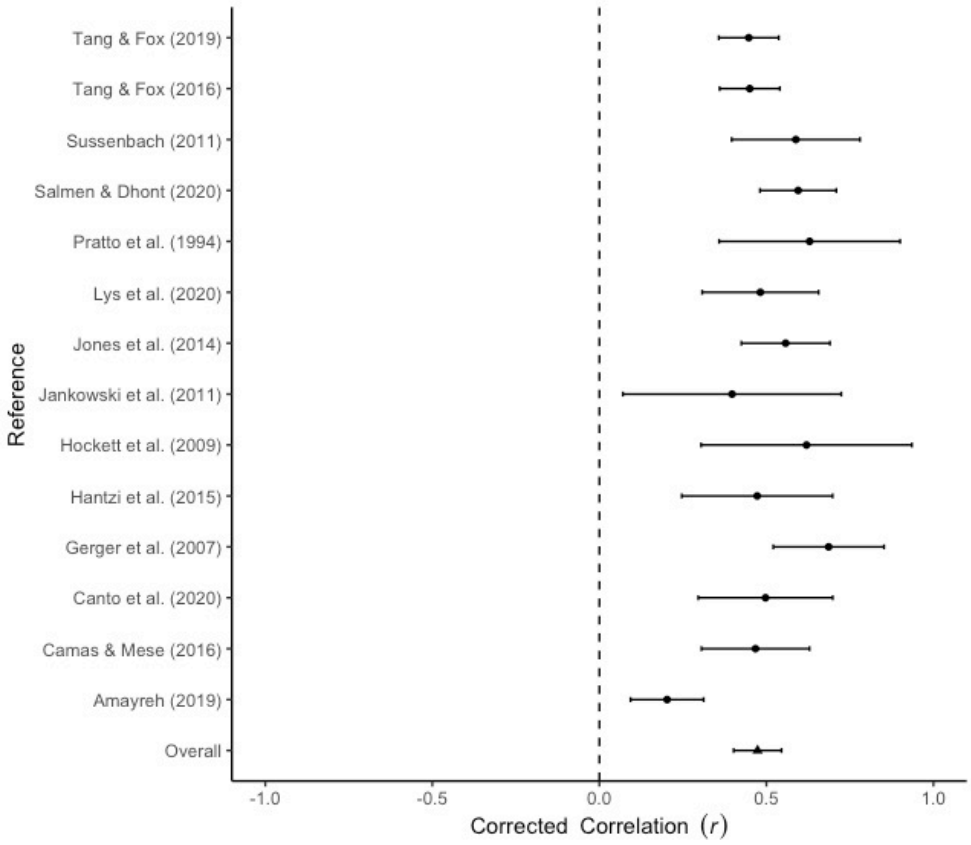
Variable	***k***	***N***	$\overline{r}$	SD_r	SD_{res}	$\overline{\rho}$	SD_{r_c}	SD_ρ	**95% CI**	**80% CR**
SDO-ASVAW	19	3 160	.41	.11	.09	.48	.12	.10	[.42, .54]	[.35, .61]
ASVAW Type										
Coercive Tactics	3	737	.33	.13	.12	.38	.16	.15	[-.02, .79]	[.10, .67]
Harassment perpetration	2	999	.37	.03	.00	.45	.00	.00	[.44, .46]	[.45, .45]
Myth Acceptance	14	1 424	.47	.09	.05	.55	.10	.03	[.49, .60]	[.50, .59]
Sample Type										
Representative										
Community	2	305	.40	.01	.00	.52	.06	.00	[-.02, 1.05]	[.52, .52]
Online	7	1 921	.43	.09	.07	.51	.08	.05	[.44, .58]	[.43, .59]
Non-representative										
Students	10	934	.36	.14	.11	.41	.17	.13	[.29, .53]	[.23, .59]
Country of Study										

Unclear	2	447	.43	.06	.02	.51	.07	.03	[-.14, 1.17]	[.42, .61]
US	9	1 393	.42	.15	.13	.47	.16	.14	[.35, .60]	[.28, .67]
Europe	8	1 320	.38	.06	.00	.47	.07	.00	[.42, .54]	[.35, .61]
Publication Status										
Published	17	2 785	.42	.08	.05	.50	.08	.04	[.46, .55]	[.46, .55]
Unpublished	2	375	.27	.17	.15	.31	.18	.17	[-1.33, .1.95]	[1.21, .82]

Note: k = number of studies contributing to meta-analysis; N = total sample size; $\bar{r}$ = mean observed correlation; SD_r = observed standard deviation of r; SD_{res} = residual standard deviation of r; $\bar{\rho}$ = mean true-score correlation; SD_{r_c} = observed standard deviation of corrected correlations (r_c); SD_ρ = residual standard deviation of ρ; CI = confidence interval around $\bar{\rho}$; CR = credibility interval around $\bar{\rho}$. Correlations corrected individually.

Figure 2

Forest plot of included studies comparing relationship between SDO and ASVAW



Effect of Sample Type. Sample type was examined through a hierarchical moderator analysis. Community and online samples were considered to be representative. The primary method of online data collection was through Amazon M-Turk which allows for representative data collection, and community samples were collected by telephone and postal distributions within local communities. Conversely, student samples were confined to a specific population and therefore considered non-representative.

There was no moderating effect of sample type on SDO-ASVAW. There were significant moderate-large true-score correlations between SDO and ASVAW for

seven studies using online populations ($\overline{\rho}$ = .51) and ten studies using student populations ($\overline{\rho}$ = .41). There was no overall significant relationship between SDO and ASVAW in the two studies using community samples (95% CI [-.02, 1.05]. Comparison of confidence intervals and between study variance in both student (τ^2 = .017, p < .05) and online samples (τ^2 = .054, p < .05) suggest the presence of heterogeneity and likely further moderating effects.

Effect of Country. There was not a moderating effect of country on SDO-ASVAW. There was a roughly equal number of samples from the US (k = 9) and Europe (k = 8). Mean true-score correlations for both US and European samples were large, and the same ($\overline{\rho}$ = .47). Large credibility intervals (80% CR [.28, .67]) and between-study variance (τ^2 = .020, p < .001) suggests the presence of heterogeneity in US samples. Credibility intervals for European samples were also large (80% CR [.35, .61]) although between-study variance (τ^2 = .000, p = .546) suggests greater subsample homogeneity.

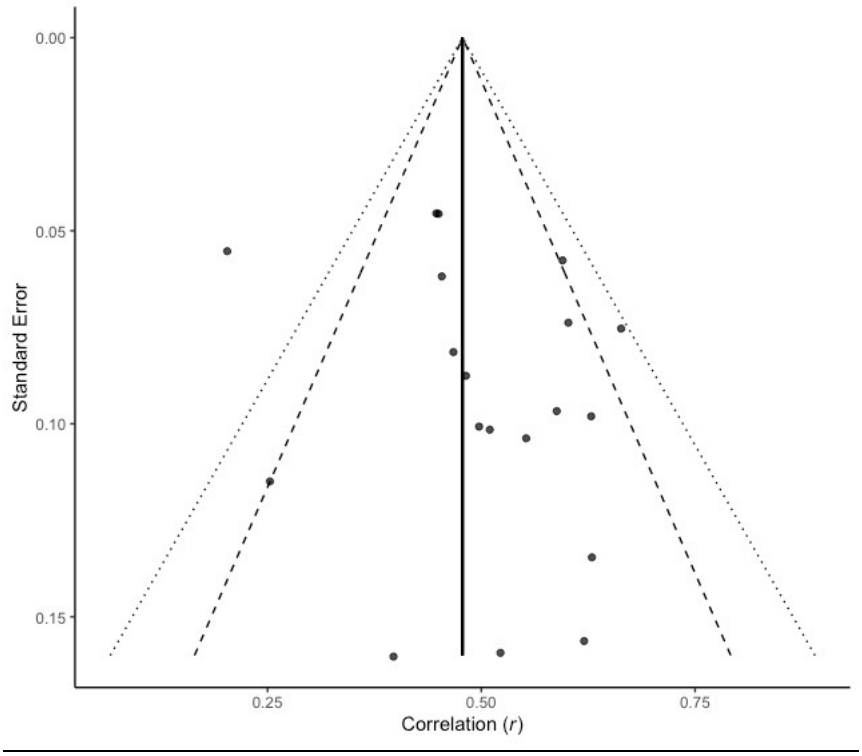
Publication Status. Most included studies were published (k = 19) compared to unpublished (k = 2). The correlation between SDO and ASVAW was large for published ($\overline{\rho}$ = .50), and moderate for unpublished studies ($\overline{\rho}$ = .31). Narrow credibility intervals (80% CR [.46, .55]) and between-study variance (τ^2 = .001, p = .180) suggest published studies account for a significant proportion of variance in the SDO-ASVAW relationship.

Risk of Non-Reporting Bias. A funnel plot was produced comparing mean observed correlations with standard errors (Figure 3). Visual inspection of this plot suggests that there may be some non-reporting bias of small-moderate

effect studies. However, statistical follow up tests were not completed following guidance on their likely misapplication (Ioannidis & Trikalinos, 2007) and the likely heterogeneity present within the data. It is possible given the small number of included unpublished studies that the source of this bias can be accounted for by publication bias.

Figure 3

Funnel plot comparing mean observed correlations with standard errors.



HS-ASVAW

Table 6 shows that across 11 studies there was a significant moderate effect size between HS-ASVAW ($\overline{\rho}$ = .53) with relatively narrow confidence intervals (95% CI [.40,.66]). However credibility intervals (80% CR [.28, .79]) and between-study variance (τ^2 = .034, p < .05) suggests the presence of moderating effects. Figure 4 shows a forest plot with confidence intervals for individual studies.

Table 6

Correlation Between Hostile Sexism (HS) and Attitudes Supportive of Violence Against Women (ASVAW) and Moderator Analyses (k min = 2)

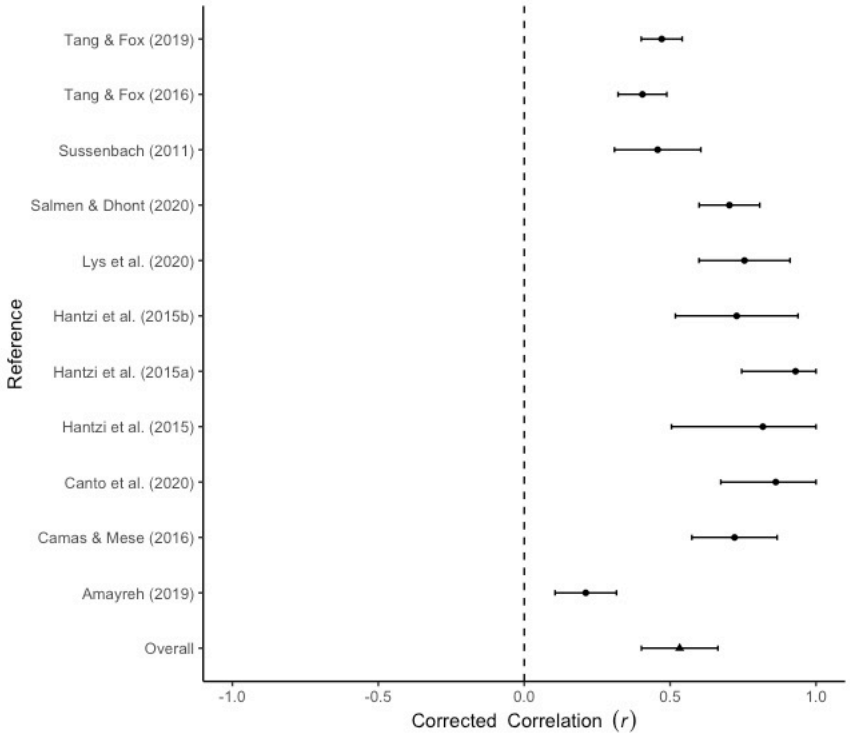
Variable	***k***	***N***	$\overline{r}$	SD_r	SD_{res}	$\overline{\rho}$	SD_{r_c}	SD_ρ	**95% CI**	**80% CR**
HS-VAW	11	2 248	.47	.18	.17	.53	.20	.19	[.40, .66]	[.28, .79]
ASVAW Type										
Harassment perpetration	2	999	.40	.03	.00	.44	.03	.00	[.15, .74]	[.44, .44]
Myth Acceptance	8	959	.63	.13	.12	.72	.13	.11	[.61, .83]	[.56, .88]
Sample Type										
Representative										
Community	2	305	.50	.12	.10	.59	.13	.11	[.59, 1.77]	[.25, .93]
Online	3	1 243	.45	.11	.10	.50	.11	.10	[.23, .77]	[.31, .69]
Non-representative										
Students	6	700	.49	.27	.26	.57	.30	.29	[.26, .89]	[.14, 1.01]
Country of Study										
US	4	1 011	.39	.18	.17	.45	.20	.19	[.14, .76]	[.14, .75]

Europe	7	1 237	.54	.15	.14	.60	.17	.16	[.45, .75]	[.38, .82]

Note: k = number of studies contributing to meta-analysis; *N* = total sample size; $\overline{r}$ = mean observed correlation; SD_r = observed standard deviation of r; SD_{res} = residual standard deviation of r; $\overline{\rho}$ = mean true-score correlation; SD_{r_c} = observed standard deviation of corrected correlations (r_c); SD_ρ = residual standard deviation of ρ; CI = confidence interval around $\overline{\rho}$; CR = credibility interval around $\overline{\rho}$. Correlations corrected individually.

Figure 4

Forest plot of included studies comparing relationship between HS and ASVAW



Effect of ASVAW Type. A moderator analysis with ASVAW type as moderator (see Table 6) shows no significant moderating effect. The correlation between HS and ASVAW was large for eight studies measuring Myth Acceptance ($\overline{\rho}$ = .72), and moderate for two studies measuring Harassment Perpetration ($\overline{\rho}$ = .44). Confidence intervals for Myth Acceptance are much narrower than harassment perpetration although overlap remains suggesting no significant moderating effect. However, analysis of credibility intervals (80% CR [.56, .88]) and between-study variance (τ^2 = .013, $p < .05$) suggests the presence of significant heterogeneity within the Myth Acceptance subgroup.

Effect of Sample Type. There was no significant moderating effect of sample type on HS-ASVAW. Significant mean true-score correlations were

moderate for both three studies using online samples ($\overline{\rho}$ = .50) and six studies using student samples ($\overline{\rho}$ = .57). Confidence intervals for two community samples crossed 1, indicating no overall significant effect. Wide credibility intervals and between-studies variance of online samples (τ^2 = .101, $p < .05$) and non-representative student samples (τ^2 = .085, $p < .05$) suggests the presence of significant heterogeneity across subgroups.

Effect of Country. The relationship between HS-ASVAW was not significantly moderated by country. Mean true-score correlations between HS and ASVAW were moderate for four US ($\overline{\rho}$ = .45) and seven European ($\overline{\rho}$ = .60) samples. Analysis of credibility intervals and between-study variance for both US samples (τ^2 = .034, $p < .001$) and European samples (τ^2 = .024, $p < .001$) suggests the presence of heterogeneity.

SDO-HS

Table 7 shows that there was a significant moderate effect size across ten studies measuring SDO and HS ($\overline{\rho}$ = .56). Relatively large credibility intervals and between-study variance (τ^2 = .018, $p < .05$) indicates the presence of heterogeneity. Figure 5 shows a forest plot with confidence intervals for individual studies.

Table 7

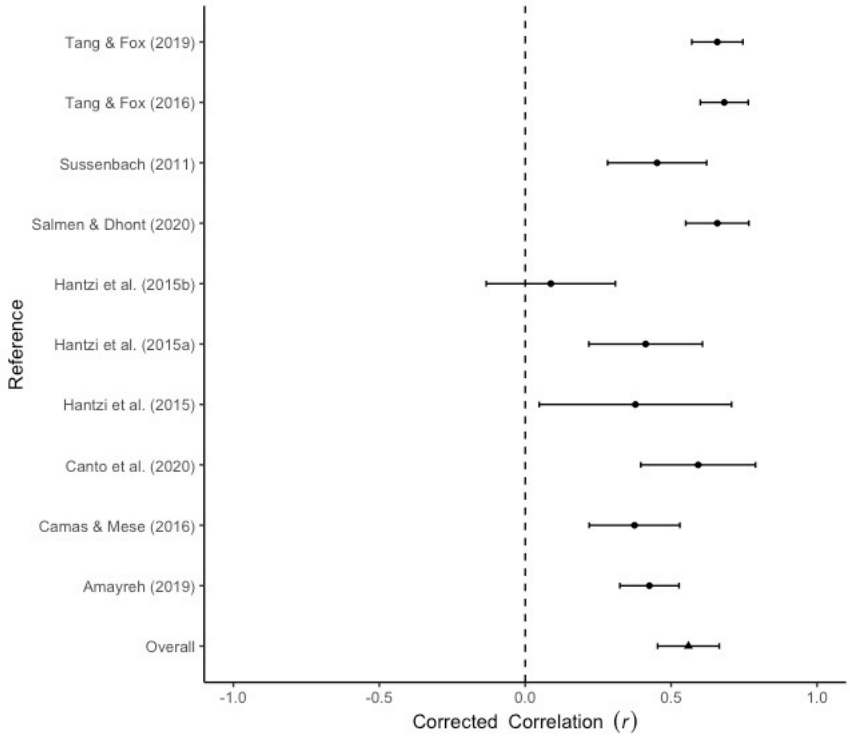
Correlation Between Social Dominance Orientation (SDO) and Hostile Sexism (HS) and Moderator Analyses (k min = 2)

Variable	***k***	***N***	$\overline{r}$	SD_r	SD_{res}	$\overline{\rho}$	SD_{r_c}	SD_ρ	**95% CI**	**80% CR**
SDO-HS	10	2 128	.46	.13	.12	.56	.15	.13	[.45, .66]	[.38, .74]
ASVAW Type										
Harassment perpetration	2	999	.54	.07	.06	.67	.01	.00	[.56, .78]	[.67, .67]
Myth Acceptance	7	839	.40	.16	.14	.49	.17	.14	[.33, .64]	[.28, .69]
Sample Type										
Representative										
Community	2	305	.32	.01	.00	.41	.04	.00	[.06, .76]	[.41, .41]
Online	3	1 243	.55	.07	.06	.67	.01	.00	[.64, .70]	[.67, .67]
Non-representative										
Students	5	580	.35	.11	.08	.41	.13	.09	[.24, .57]	[.27, .55]
Country of Study										
US	4	1 011	.53	.12	.11	.59	.12	.11	[.41, .78]	[.42, .77]
Europe	6	1 117	.41	.11	.09	.52	.17	.15	[.34, .69]	[.30, .74]

Note: k = number of studies contributing to meta-analysis; N = total sample size; $\overline{r}$ = mean observed correlation; SD_r = observed standard deviation of r; SD_{res} = residual standard deviation of r; $\overline{\rho}$ = mean true-score correlation; SD_{r_c} = observed standard deviation of corrected correlations (r_c); SD_ρ = residual standard deviation of ρ; CI = confidence interval around $\overline{\rho}$; CR = credibility interval around $\overline{\rho}$. Correlations corrected individually.

Figure 5

Forest plot of included studies comparing relationship between SDO and HS



Effect of ASVAW Type. There was no significant moderating effect of ASVAW type on SDO-HS (see Table 7). There was a moderate-large correlations between SDO-HS for two studies measuring 'Harassment Perpetration' ($\overline{\rho}$ = .67), and moderate correlations for seven studies measuring 'Myth Acceptance' ($\overline{\rho}$ = .49). The presence of heterogeneity is indicated within the Myth Acceptance subgroup (80% CR [.31, .67]; τ^2 = .020, p < .05).

Effect of Sample Type. There was a moderating effect of sample type on SDO-HS, such that online samples (k = 3) produced a much stronger relationship ($\overline{\rho}$ = .67) than student samples ($\overline{\rho}$ = .41; k = 5). Community samples (k = 2) had extremely large confidence intervals although were still significant ($\overline{\rho}$ = .41). Credibility intervals and between study variance (τ^2 = .000,

p = .884) suggests homogeneity between online samples and heterogeneity within student samples (τ^2 = .008, p < .05).

Effect of Country. The relationship between HS-ASVAW was not significantly moderated by country. Four US studies showed moderate-large effects ($\overline{\rho}$ = .59) and six European studies showed moderate effects ($\overline{\rho}$ = .52). Analysis of credibility intervals and between-study variance for US samples (τ^2 = .011, p < .001) and European samples (τ^2 = .022, p < .001) suggests the presence of heterogeneity.

A Structural Equation Model of HS mediating SDO-ASVAW

Given the similarly large mean true-score correlations between SDO-ASVAW, HS-ASVAW and SDO-HS ($\overline{\rho}$ = .48; $\overline{\rho}$ = .53; and $\overline{\rho}$ = .56 respectively), a structural equation model was fitted to examine whether HS had a mediating effect on the relationship between SDO and ASVAW. A mediation analysis was performed in R using the metaSEM package (Cheung, 2015; Baron & Kenny, 1986b). Pooled correlation matrices were specified using a random-effects model for studies that included correlation coefficients for SDO, HS and VAW (k = 11, n = 2248). Missing correlations between SDO and HS (k = 1) were produced using the calculated mean of studies using the same construct measures. A likelihood-estimate random effects model was then specified. (See Output A for R Syntax)

The specified model did not fit the data well (x^2 = 60.16, df = 1, p < 0.001; RMSEA = 0.16, CI = 0.13 - 0.20; CFI = 0.63) meaning the null hypothesis that the predicted model and observed data are equal is retained. We can therefore

conclude that HS does not mediate the relationship between SDO and ASVAW in this dataset.

Secondary Outcome Measures

The only secondary outcomes available in included studies and therefore added to the analysis were personality variables. Table 8 shows measures of 'Dark Triad' personality variables and their relationship to primary outcome measures. All had significant moderate-strong relationships with both SDO and ASVAW with psychopathy having the strongest relationship of the three personality measures and a very high correlation with ASVAW ($\overline{\rho}$ = .72). All effects were heterogenous except for SDO-Narcissism and SDO-Machiavellianism.

Discussion

Summary of research findings

SDO-ASVAW

The results of this meta-analysis show that the relationship between social dominance orientation and attitudes supportive of violence against women was large. Most studies measured a form of myth acceptance, and this accounted for most of the between study-variation. There was less conclusive evidence for the relationship between SDO and the use of coercive tactics to obtain sexual relationships, and between SDO and harassment perpetration, although any true effects were limited by the small number of studies included and the presence of heterogeneity. There were also the additional issues of dependency, with some study authors contributing samples to the same subgroups. The results of Tang and Fox (2016) and Tang, Reer and Quandt (2019) appear to show very little

between-study variation which raises the question of sample independence although both papers present samples as ostensibly independent. It is notable that these samples represent a subset of the online community that play video games and sexual harassment within the online gaming community has been widely reported in the media (e.g. Rackham, 2021).

These results suggest that men who believe that women are a more subordinate social group than themselves may be more likely minimise the seriousness of sexual violence, more likely to mitigate the behaviour of the perpetrator and blame female victims of sexual violence. Within the context of SDT, one might consider that attitudes such as these have the function of asserting dominance and control over women, through the implied threat of sexual violence, thus maintaining the status quo of male dominance.

Sample type. This relationship was strong in both online samples and studies that used students, although samples were not homogenous. The larger effect and less variability in online samples may reflect the more representative nature of sampling through platforms such as Amazon M-Turk.

Country. That there was no moderating effect of country and studies with both US and European populations produced highly comparable results suggests that the relationship between SDO and ASVAW is not confined to borders. It should be noted that it is not possible to conclude that the samples of studies using online samples resided in or had any cultural similarity to the country in which the paper originated. Further, all included studies used samples from either the US or Western Europe, thus limiting any generalisability of effect.

Table 8

Correlations between 'Dark Triad' personality variables and primary outcome measures (k min = 2)

Variable	***k***	***N***	$\overline{r}$	SD_r	SD_{res}	$\overline{\rho}$	SD_{r_c}	SD_ρ	**95% CI**	**80% CR**	**Between-study variance**
Psychopathy – SDO	3	1 021	.42	.06	.03	.55	.09	.08	[.31, .78]	[.40, .69]	(τ^2 = .075, p < .05)
Psychopathy - ASVAW	3	1 021	.62	.07	.06	.72	.08	.07	[.51, .93]	[.58, .86]	(τ^2 = .073, p < .05)
Narcissism – SDO	3	1 021	.27	.05	.02	.36	.09	.05	[.14, .57]	[.26, .45]	(τ^2 = .052, p = .090)
Narcissism - ASVAW	3	1 021	.37	.08	.07	.44	.09	.07	[.22, .66]	[.31, .57]	(τ^2 = .069, p < .05)
Machiavellianism - SDO	2	835	.31	.01	.00	.41	.02	.00	[.24, .58]	[.41, .41]	(τ^2 = .000, p = .645)

Machiavellianism - ASVAW	3	1 021	.41	.17	.17	.48	.18	.17	[.04, .93]	[.16, .81]	(τ^2 = .017, p < .001)

Note: *k* = number of studies contributing to meta-analysis; *N* = total sample size; $\overline{r}$ = mean observed correlation; SD_r = observed standard deviation of r; SD_{res} = residual standard deviation of r; $\overline{\rho}$ = mean true-score correlation; SD_{r_c} = observed standard deviation of corrected correlations (r_c); SD_ρ = residual standard deviation of ρ; CI = confidence interval around $\overline{\rho}$; CR = credibility interval around $\overline{\rho}$. Correlations corrected individually.

European samples were however homogenous which raises the question of whether (within Western Europe at least) strong beliefs in social hierarchy increase the risk that violence against women will be at worst perpetrated and at best minimised. Social Dominance Theory posits that hierarchies exist where one group has greater resource acquisition and allocation than another group (Pratto et al., 2006). In capitalist Western societies, one way in which gender disparity is maintained is through systems that unequally allocate financial resources to men and women (e.g. Boll & Lagemann, 2018)

Publication Bias. Two studies were removed ahead of the meta-analysis because they were of low quality, and both did not report accurate sample sizes. Further, removing unpublished studies from the analysis reduced the between-study variation in the relationship between SDO and ASVAW. In conjunction with examining a funnel plot of included studies, it can be concluded that there is a risk of non-reporting bias and there is a need for the publication of more high-quality studies that may present a fuller picture. That not a single included published study produced less than a moderate strength effect suggests that studies finding weaker effects or that are of low quality may be unlikely to be published.

HS-ASVAW

There was additionally a strong relationship between hostile sexism and attitudes supportive of violence against women, especially on measures of myth acceptance. However, the pool of included studies in this analysis contained a

significant amount of heterogeneity, which was present across all study-level moderators. That no study-level moderator affected this relationship attests to the strong relationship between HS and ASVAW and lends support to the Confluence Mediation Model (Malamuth & Hald, 2016) in predicting how hostile attitudes towards women might combine with violence supportive attitudes in predicting sexual aggression.

SDO-HS

The present meta-analysis replicates the findings of previous meta-analysis highlighting a strong relationship between SDO and HS (Sibley et al., 2007). The only moderating effect on this relationship was that online samples displayed a stronger effect than student samples, perhaps reflecting more representative sampling. However, that there was no significant effect of other study-level moderators suggests that this effect is somewhat universal between studies.

Estimation of covariance between the three primary outcome measures using structural equation modelling concluded that HS does not mediate SDO and ASVAW in this dataset. A possible explanation is that the relationship between HS and ASVAW is not necessarily linear, but that a general orientation towards belief in social hierarchy may predispose one equally to both HS and ASVAW. Within the context of the Confluence Mediational Model there is high conceptual overlap between hostile masculinity and ASVAW, and any temporal relationship is a case of the chicken and the egg. Connell and Messerschmidt (2005) discuss the concept of multiple masculinities and perhaps it is the process of men's socialisation towards a particular form of hegemonic masculinity which relates to

whether one oriented towards a belief in group hierarchy develops hostile attitudes and sexually aggressive behaviours.

Limitations

There is a significant degree of heterogeneity within each meta-analyses, suggesting the presence of additional moderators not included in analyses. Additionally there was a relatively small number of studies for some comparisons which meant they could not be reliably compared. For example most studies looked at myth acceptance and few studies looked at coercive tactics used (k = 3). Only two studies looked at the actual perpetration of behavioural violence, which was specifically within the context of online gaming and were conducted by the same authors. There are also limitations regarding the lack of unpublished studies included in the analysis and the risk of non-reporting bias. Further, two unpublished studies identified during search were of low quality and had to be excluded so there is a need for continued high quality research in this area. Despite attempts during database search to include studies from a range of countries, included in the final selection was a lack of studies outside of western cultures, meaning any cross-cultural inferences are heavily restricted.

Selected Measures

The present meta-analysis employed liberal inclusion and exclusion criteria and so studies were included where they included some measure of attitude towards sexual assault, or sexual assault perpetration. This yielded a range of outcome measures which had been selected by individual study authors and was not

controlled for in the present analysis. It is not possible to rule out that more robust measures may be present in the grey literature or for some other reason did not meet the current studies inclusion and exclusion criteria. Whilst intended to maximise study inclusion in a narrow field, this may have also given rise to heterogeneity and to the inclusion of measures which have been subject to psychometric critique. For example, the Conflict Tactics Scale Revised (and its predecessor the Conflict Tactics Scale (CTS)) has been subject to several critiques over the years since its development (e.g. DeKeseredy & Schwartz, 1998; Jones, Browne, & Chou, 2017). Despite being widely used, it has been criticised for ignoring the context in which IPV occurs as well as the motivation and intention of the perpetrator (Jones et al., 2017). Additionally, the ideological basis for the measure has been criticised as viewing IPV within the framework of family dispute rather than one of male violence towards women (DeKeseredy & Schwartz, 1998). Positively however, alternative measures such as the Sexual Strategies Scale (SSS) were also included in the present analysis and have yielded reliable and valid psychometric properties (Peterson, 2020). Similarly, in the domain of myth acceptance, several well established and validated measures of rape myth acceptance were included.

Some measures included in studies were created by individual study authors (e.g. DissSA - Self Report Sexual Assault Dismissal (Szekeres, 2020); HarassPerp - Self Report Harassment Perpetration (Tang & Fox, 2016)) and so no information on their reliability or validity exists meaning the utility of the measure cannot be assessed.

Theoretical Implications

The present review suggests that there is strong theoretical support for concluding that a belief in social inequality is a predictor of attitudes supportive of violence against women, especially myths about sexual violence. Additionally, there are strong relationships between SDO and HS and ASVAW and it is reasonable to conclude that there is conceptual overlap between social dominance theory (SDT) and the confluence mediational model (CMM) of sexual aggression, with SDO capturing some of the distal societal influences of the CMM that might orient someone towards the risk factor of hostility towards women. Whilst limited, there is also evidence that psychopathy, and other 'Dark Triad' personality variables are related to both SDO and ASVAW. What is not accounted for in the present review owing to the correlational nature of the data, is the precise mechanism by which these variables might relate and the process through which certain attitudes and beliefs might develop, such as through gender role socialisation.

Applied Implications

This review has implications for how systems that are male dominated and likely high in social dominance, respond to violence against women. This is especially relevant within the criminal justice system which is overwhelmingly male dominated at all levels, from police to judges (UK Home Office, 2021; UK Ministry of Justice, 2021). Female victims of sexual violence report high levels of unfair treatment in the criminal justice systems, leading many victims not to report because they do not feel they will be believed (Molina & Poppleton, 2020).

These accounts are corroborated by the UK government's own reports of the criminal justice system's failing of rape victims (HMICFRS, 2022). If agents within the criminal justice system are unable to recognise and adequately respond to incidents of sexual violence, then female victims will continue to be denied justice and at worst be re-traumatised or placed in positions where violence continues to be perpetrated against them.

Conclusion

This meta-analytical study sought to summarise the relationship between a belief in social hierarchy and attitudes supportive of violence against women. The results show that SDO is a strong predictor of ASVAW – especially myth acceptance – within different contexts and with different subsamples. Hostile sexism is additionally implicated as having a strong relationship with both SDO and ASVAW, although it was not possible to conclude that HS had any mediating effect on this relationship. In addition there is limited evidence to suggest that 'Dark Triad' personality variables are predictive of both SDO and ASVAW. These results are expected in line with both social dominance theory and the confluence mediational model of sexual aggression. Future research might further the use of structural equation modelling meta-analysis to examine how the theoretical components of SDT and CMM overlap and are conceptually related.

These results come at a time when patriarchal systems are under scrutiny for how they treat female victims of sexual violence. In the wake of a series of incidents that cast the spotlight on the Metropolitan Police's handling of

allegations of sexism, misogyny and police perpetrated rape, the Metropolitan Police Commissioner, Cressida Dick was forced to resign. In the eyes of the London Mayor and the public, the assertion of "a few bad apples" falls flat. The research suggests that agents within male dominated systems – especially those premised on maintaining hierarchy and power – are at risk of hostile sexism, perpetuating gender inequality and of failing female victims of sexual violence. If these systems of power do not continue to be scrutinised and the legitimacy of the hierarchy challenged, then it is probable that the current failings of female victims of sexual violence will continue to populate our screens.

Chapter Three: A single case study design exploring social dominance and hostile masculinity in a male undergoing community treatment for sexual offending

Abstract

The present case study details the treatment of a man, Mr A, participating in a high-intensity 12–18-month treatment programme for high-risk/high-harm sexual offences. Mr A has a history of violent rapes against women alongside other violent offending. His treatment plan included the attendance of a weekly group programme, 2-3 weekly individual sessions, as well as support from a robust professional network that included probation and supported accommodation. Alongside the Stable-2007 dynamic assessment of sexual recidivism Mr A completed psychometrics across 3-time points, measuring Social Dominance Orientation (SDO) and Hostile Masculinity (HM), in addition to a measure of Impression Management (IM). Following 8-months of treatment, Mr A's Stable-2007 showed a slight decrease from 15 to 13 but his risk rating remained 'high'. Clinical observations indicated that Mr A had made progress towards treatment goals, notably that there were no expressed attitudes supporting violence against women, which was mirrored in his HM scores. Mr A showed reductions in scores on the HM composite and highly stable scores on SDO. Mr A's IM scores were high throughout but decreased slightly across time-points. Mr A's scores suggest that the treatment likely impacted on levels of HM, but that SDO remained stable, and in line with non-offending community samples. Discussion is given to how SDO and HM may differentially relate to sexual violence, such that whilst SDO may relate to attitudes *supportive* of violence, it is insufficient in predicting the *perpetration* of violence.

Introduction

Chapter 2 highlights how high Social Dominance Orientation (SDO) and a belief in group inequality relates to attitudes supportive of violence against women within community samples, however this was mostly limited to attitudes that minimise violence seriousness, e.g. rape myth acceptance, rather than actual behavioural violence and with non-offending populations. The present case study examines the attitudes and progress of an individual (Mr A) undertaking a high intensity sexual offending treatment programme within the community. Mr A's background, personality and offending place him at high risk of committing sexual violence within the framework of the Confluence Mediational Model (CMM) (Malamuth & Hald, 2016) and given the nature of his offending one would predict that he would also score highly on a measure of Social Dominance Orientation.

The CMM identifies two constellation pathways towards sexual aggression: the 'hostile masculinity' constellation, and the 'antisocial/impersonal sex' constellation. Hostile masculinity encompasses attitudes including hostility towards women, sexual dominance, and acceptance of rape myths and is a strong predictor of non-sexual aggression. Sexual aggression is predicted by a confluence of hostile masculinity with the 'antisocial/impersonal sex' constellation: comprising early delinquent behaviour, abusive home environments and having multiple, emotionally detached sexual relationships. Dean and Malamuth (1997) further identified an individual's propensity to be dominant and self-oriented vs. nurturing and other-oriented as a moderator for sexually aggressive behaviour.

Social Dominance Theory (SDT) hypothesises that individuals who inhabit environments and cultures that are hierarchy-enhancing (e.g. police/military/barristers) are more likely to hold socially dominant beliefs and associated prejudices (Pratto et al., 2006). One such environment, where resources are scarce, and competition is high is the prison institutional environment. Graham-Kevan (2011) demonstrated that prisoners within a Category B prison had on average higher SDO than community, student, and military cadet samples, and that this was highest for prisoners committing 'approach offences' - where perpetrator behaviour secures victim compliance (e.g. robberies and sexual offences). Gang membership is also related to high SDO both in community (Densley, Cai, & Hilal, 2014) and custodial settings (Alleyne, Wood, Mozova, & James, 2016). The hierarchical nature of the prison environment is well documented (e.g. Ireland, 2000; Ireland, 2014) and those with sexual offences often find themselves on the lower rungs of the social hierarchy and subject to bullying and victimisation. Although there is a dearth of research on social dominance within ex-offending populations one might hypothesise that ex-offenders who have spent a long time imprisoned for an 'approach offence' would score moderately highly on a measure of social dominance, compared to non-offending populations.

Mr A was directed by the Parole Board to engage with the Challenge group as a condition of his sentence plan. The Challenge group is a 12–18-month sexual offending treatment group for high risk/high harm men with either contact or non-contact offences. It is the primary form of treatment for sexual offenders screened into the Offender Personality Disorder (OPD) Pathway who are

accessing psychological services within London through the Integrated Community Service (ICS). Mr A was screened into the pathway due to the presence of antisocial and emotionally unstable personality traits. Treatment involves integrating the client's offending with their personality, mental health, and social functioning to arrive at a formulation of key problems. Group content focusses on developing a 'narrative' for their offending and moving towards the identification of skills and support necessary to lead a meaningful life within the community. Sexual offending is inherently interpersonal (Craissati, 2009) and the Challenge group programme has its theoretical underpinnings in attachment and schema theory (e.g. Shaver & Mikulincer, 2009; Young, Klosko, & Weishaar, 2006) as well as the Good Lives Model (Ward, Mann, & Gannon, 2007) and desistance theory (e.g. Weaver & McNeill, 2010). There is a focus on modelling healthy non-judgmental attachments with facilitators and keyworkers and the establishment of treatment goals focussed on criminogenic needs using the *risk-need-responsivity* principle (Bonta & Andrews, 2007). Group sessions take place weekly on a midweek evening and 1:1 keywork sessions occur alongside this on a 2-3 weekly basis to help consolidate group material and to explore treatment interfering issues and offer additional support.

Assessment

Offending History

The following information is compiled from Mr A's probation records:
Mr A is a black man in his 60's who received a life sentence in 1995 for three counts of rape and one count of unlawful wounding. The context of the unlawful

wounding is that Mr A severely beat his then partner following drinking in the pub and after she had communicated that she wished to end the relationship. She required three weeks of hospital treatment following the attack and Mr A is reported to have then visited her in hospital and threatened to kill her if she reported the incident. The three rapes occurred in the period following the unlawful wounding and in similar circumstances. In all incidents, Mr A approached the victims' residence and gained access under a false pretence such as posing as a delivery driver, before violently raping the victims over a sustained period. One victim was known to Mr A, whilst two were stranger victims.

Mr A's offending history started when he was aged 16 and living in Canada. He has 25 recorded offences in Canada, including two counts of indecent assault, and two counts of sexual assault. Mr A also has several violent offences including assault, assault with a weapon, and grievous bodily harm, in addition to offences of robbery and burglary.

Presentation and Engagement

Mr A's assessment and initial formulation were completed over four 50–60-minute telephone sessions. Face-to-face sessions were not possible at the time owing to restrictions due to Covid-19. Mr A engaged well with the assessment process and talked openly about his offending history and early experiences. It was easy to develop rapport quickly with Mr A and although he did not always readily volunteer information, he answered questions posed to him directly. There appeared to be some attempts at impression management, for example

distancing himself from his offending history and his 'old self' and an insistence that he would 'never offend again' and some minimisation of the seriousness of the offending and the impact on the victims.

Risk Assessments and Psychometrics

As part of the preparation for the Challenge group Mr A completed the Stable-2007 dynamic risk assessment of sexual recidivism (Hanson, Harris, Scott, & Helmus, 2007). The Stable-2007 has been shown to be a valid and reliable risk assessment for sexual offenders and is a significant predictor of sexual and violent (non-sexual) recidivism (Brankley, Babchishin, & Hanson, 2021). Stable-2007 items can also be used to guide treatment and supervision goals.

Mr A also completed the following psychometrics at baseline (within 4 weeks of starting treatment), 4 months, and 8 months to assess aspects of social dominance and hostile masculinity:

- Social Dominance Orientation (SDO) Scale (Ho et al., 2015). The SDO scale measures two facets of social dominance, SDO-D: a more preferential orientation towards group domination and oppression, and SDO-E: an orientation towards a preference for group inequality.
- Hostile Masculinity (HM): A composite dimension consisting of the following scales:
    - The Acceptance of Modern Myths about Sexual Aggression (AMMSA) (Gerger, Kley, Bohner, & Siebler, 2007).
    - The Hostility Towards Women Scale (Check, 2014).

    - The Adversarial Sexual Beliefs Scale (ASB) (Jacques-Tiura, Abbey, Parkhill, & Zawacki, 2007)
    - The Acceptance of Interpersonal Violence (AIV) Scale (Burt, 1980)
- Impression Management (IM) Scale from the Balanced Inventory of Desirable Responding (BIDR-16) (Hart, Ritchie, Hepper, & Gebauer, 2015).

Assessment Outcomes

Mr A's score on the Stable-2007 was 15/24 which places him in the 'High' risk category for sexual reoffending. Specific items in which he scored highly were: General Social Rejection, Lack of Concern for Others, Impulsivity, and Negative Emotionality. Mr A's baseline scores on SDO, HM and IM are presented in Table 9. Mr A's hostile masculinity scores were lower than the scale mid-point, although it is notable that his score on AIV and HTW were high compared to the composite mean. His SDO scores were lower than the scale mid-point but in line with community samples of men (M = 2.72) (Nicol, Charbonneau, & Boies, 2007). It is notable that his IM scores were very high suggesting a likely high degree of wishing to present himself in a favourable light.

Table 9

Mr A's Baseline scores on SDO, HM and IM.

Measure	**Score (Max: 7)**
	Baseline

Acceptance of Interpersonal Violence	4.00
Adversarial Sexual Beliefs	1.22
Acceptance of Modern Myths about Sexual Assault	2.03
Hostility Towards Women	3.27
Hostile Masculinity Composite	2.63
SDO-D	2.75
SDO-E	2.50
SDO Total	2.63
Impression Management	6.40

Background

The following is a background history that emerged during assessment sessions with Mr A and informed development of his initial formulation.

Mr A was raised in the UK by his mother and father along with two sisters who were much older than he was and with whom he did not have a close relationship growing up. Mr A also had a younger half-sister who lived in Canada with her mother. He described a difficult childhood that was dictated by an authoritarian father who expected '100%' from everything and who would enact severe physical beatings if his expectations were not met. Mr A frequently experienced physical violence and witnessed his mother being physically assaulted. On one occasion he witnessed his father beat and rape his mother. Mr A describes feeling 'powerless' and unable to predict whether or not he would receive physical punishment from his father.

When Mr A was a young boy, he described taking trips with his father, where his father would engage in extra-marital affairs and Mr A would be sworn to secrecy. Mr A described this as 'keeping secrets' and was able to link this to his own secretive behaviour in relationships, as well as previously within supervision with offender managers. Mr A also identified that based on his father's modelled behaviour, he learnt to 'just use women' and identified complicated feelings of resentment towards his mother for being unable to protect herself and him from Mr A's father. Mr A reports consuming alcohol from the age of 8 or 9 to 'block out' a turbulent home life, and he reports experiencing racism form peers at school and within the local community. When Mr A was aged 9, he moved with his father to Canada against his wishes, whilst his mother and sisters remained in the UK. Mr A recalls feeling 'abandoned' by his mother and of feeling that his mother encouraged Mr A to go in the hope that Mr A's father would then return to the relationship with his mother.

Mr A reports that he started weight training as a teenager to stand up for himself and began fighting in school. He recounted a significant event when he was 16 when he was stabbed by another boy after he confronted him for assaulting Mr A's half-sister. He describes forgiving the boy and befriending him over a period of months, whereby he then led him to a secluded place and severely beat him until he was interrupted by a passer-by. Mr A commented 'I know that's not right now, but he did wrong'. Mr A's later teenage years and twenties were characterised by gang involvement and an increasing use of instrumental violence and he describes getting a reputation as someone to be feared, a reputation he enjoyed. Mr A was a heavy user of alcohol and crack cocaine and engaged in several short-term relationships, often with sex workers

and other substance users. Mr A's index offences were in the context of a breakdown in his relationship and a desire to 'get women back'.

Mr A was recalled from a previous supported housing placement in the community for increasing destabilisation. Mr A had formed a strong attachment to the housing placement and to his keyworker specifically. As he approached move-on from the placement he became increasingly unsettled, began using crack cocaine and had started a relationship with a sex worker and did not disclose this behaviour to the housing placement or his offender manager.

Formulation

Mr A's initial formulation was developed using the Compassion Focussed Therapy (CFT) model, which is introduced in the first module – Developing a Sexual Assault Cycle – and is presented as a personal letter to Mr A.

Dear Mr A,

You were born in the UK and were raised with your three sisters. Two of your sisters were significantly older than you and both of your parents worked. You remember feeling uncared for and not loved as child. Your father drank heavily and you often witnessed and experienced intimate partner violence from him. You told me that your father was frequently unfaithful to your mother – something you feel that you learnt in your own relationships with women. You knew about your father's behaviour and described 'keeping secrets' from your mother. This influenced your own behaviour in relationships, and you described learning to 'just use women'. Keeping secrets also became a strategy you used in relationships to

avoid conflict. You have also witnessed your father sexually assaulting your mother, which may have further impacted on your views of women as vulnerable and easily used. These home experiences understandably left you feeling angry and influenced how you viewed the world with an attitude of 'not letting anyone walk over me'.

Between the ages of 7 and 8 your father left the family home and moved to Canada and you were sent to live with him when you were 9. This compounded your feelings of rejection from your mother. You described feeling in the middle of your parent's relationship and felt that your mother sent you with your father in the hope that he would return. This left you feeling abandoned and that your own needs were unimportant and second to others. But of course your needs are important. You experienced racism and violence at school and started using intimidation and aggression as ways of protecting yourself and being respected by others. Around the age of 11 you became involved in drug and alcohol use, and acquisitive offending, and this became the norm throughout your life. You also joined a gang, which reinforced the use violence and you described taking gratification from it, because this gave you the power and control that you did not have at home. Substance use is also directly linked to your risk because it increases your impulsivity, and you may be more likely to make decisions that get you into trouble.

You quickly form attachments to others, especially when you perceive that they give you the nurturance, care, and attention that you feel you did not fully receive in your own family environment. This can include other people but also professionals or professional services. Your recent recall was the result of having

to move on from a supported placement - a service you described as your 'family' - and the anxiety of move-on and losing that support and 'love' was incredibly unsettling for you. This led to an increase in substance use and the development of a relationship with a sex worker, both of which you were not fully truthful about with your offender manager. Your relationships with sex workers, whilst appearing intimate, likely lack the level of intimacy one would expect of a romantic relationship. This keeps you safe from vulnerability by not letting others to get too close.

You also have high expectations of others. This likely has the function of guarding yourself against potential abuse by remaining vigilant to the behaviour of others. It may also give the illusion of having control in these relationships. However, the unintended consequence of this may be that when others experience this, they pull away, inevitable letting you down and reinforcing beliefs that others are unreliable or untrustworthy.

You have been convicted for sexual offences in Canada, before being deported back to the UK. We are not sure about the triggers for these offences in Canada. However, it sounds like the three rapes committed in the UK happened in the context of your relationship breaking down. The fear of losing or being used by others leads to feeling again like that vulnerable child. These intolerable feelings give way to anger and a need to control others, which internally feels like a safer position for you to be in. In the past, exploiting others and having the upper hand has kept you safe.

You have recently been working well with professionals and have been able to explore some of the "risky sides to you", such as feeling a need to control relationships, and rule-breaking. You have also been engaging well with the Challenge group. You have described being able to relax some of your expectations of others (such as other hostel residents) and have tried not to get involved with them. We would encourage you to keep talking about the "risky sides to you" and the function that might still be served by a need to control relationships. By accepting and talking about the "risky sides of you", this doesn't take away from your wish and ability to live and sustain a pro-social life but will help to keep you out of trouble.

Treatment Goals

Following assessment and formulation the following treatment goals were developed and agreed with Mr A in the following areas:

- Intimacy
    - To slow down when entering relationships (personal and professional) and try to manage strong attachments.
    - To consider one's high expectations of others and how this interferes with relationships.
- Pro-offending attitudes
    - To use the group to practice thinking skills, e.g. to challenge narratives on relationships and consent.
- Social Influences
    - To build a supportive network away from professionals.

- Sexual self-regulation
    - To manage risk in relation to contact with sex workers.
    - To disclose to OM and other professionals any emerging relationships so that offence paralleling behaviour can be monitored.
- General self-regulation
    - To remain abstinent from substances and communicate difficulties or use to OM and professionals.
    - To use the group and to develop skills to manage challenges of supported living with other residents.

Intervention

Module 1: Developing a Sexual Assault Cycle

The first module of the Challenge intervention was initially delivered remotely 1:1 via telephone rather than in group, owing to the suspension of the Challenge group due to Covid-19. Module 1 was delivered remotely for 8 weeks and as a group for 2 weeks. The aim of the Module was to formulate a 'Sexual Assault Cycle' – linking developmental experiences and core beliefs to relationship and intimacy problems which can result in sexual offending.

Mr A was able to formulate his offending within the context of the compassion focussed model. He found it easier to think of external threats (e.g. perceived rejection from others), compared to internal threats (e.g. own self-relating) but could consider these with support. He was able to readily identify 'life-traps'

(schemas) such as 'Abandonment' ("others will leave me") and 'Mistrust' ("others will hurt me") that contribute to how he perceives the world. We specifically discussed how this relates to women and his experiences of his mother and previous relationships. Mr A could identify how these life-traps could be triggered in interpersonal relationships, including with professionals, and how the intensity of his perceived abandonment from his previous female keyworker contributed to intolerable emotions and increasing instability. We identified a behavioural strategy to manage attachment to his current accommodation keyworker, which would be to not enquire about her shift pattern, and thus needs would be met by staff on shift or would wait until a pre-arranged keywork session.

Mr A was also to identify the role of vengeful and rehearsal fantasy within his sexual offending behaviour, and how activation of life traps could precipitate a need to restore self-esteem by 'getting one's own back at women'. Mr A was clear on the role of conscious planning within his offences but had more difficulty thinking about the role of unconscious planning which he believed was more abstract. Mr A managed to grasp this conceptually but believed all the planning in his offences was conscious. There was a sense that Mr A believed that acknowledging unconscious elements in the planning of his offending was to deny responsibility. Mr A could identify how his then hostility towards women and the belief that all women were responsible for his own hurt helped to maintain his self-esteem and avoid feelings of guilt or shame that otherwise may have interrupted his offending.

Mr A had more difficulty in integrating parts of his past and current self. He denied any current hostility towards women (or men) and presented an 'idealised' version of his current self and despite stating that certain experiences were difficult to talk about there was a lack of emotional connection to some of these experiences. This may in part be due to antisocial traits, as well as a desire to impression manage and preserve one's self-esteem and 'value' to himself and to others.

Mr A's difficulty in integrating parts of his self was also reflected in difficulty integrating parts of others. Mr A frequently oscillated between positions of 'everything (everyone) is brilliant' to 'everything (everyone) is awful' which likely relates to the attachments he forms to objects, including the Challenge group itself, and stemming from his relationship with his mother as both cherished and loved but also a source of abandonment and rejection. When experiencing others negatively, Mr A would frequently seek out some other source (often someone whom he perceived had more authority) for comfort and validation. For example, when Mr A was experiencing emotional distress within his supported housing placement, he would often ask to speak to the most experienced/qualified person, such as the clinical lead, and could be denigrating to more junior or less experienced staff.

Module 2: Impact of Childhood Experiences

Module 2 was delivered in person in a group format over 8 sessions. The aim of this module was to promote awareness of one's own childhood experiences, especially in relation to trauma, and how experiences as victim may engender a

desire to 'turn the tables', such that anxious feelings of vulnerability and powerlessness can be turned into feelings of power, dominance and control. Alongside weekly group delivery, Mr A engaged in fortnightly keywork sessions.

Mr A had more difficulty with this module, specifically with finding an emotional connection to early experiences. When thinking about past experiences of victimisation and a desire to 'turn the tables' against a school bully, Mr A was vague and non-specific and required support and encouragement from facilitators to identify thoughts and feelings associated with the event. Mr A had similar difficulties in a session which used an experiential exercise using the 'two-chair technique' where group members were asked to write a 'letter to perpetrator' and then read the letter to the person symbolised by the empty chair (e.g. Greenberg, 1979). Mr A identified his father as perpetrator but was initially unable to proceed further with the task, stating that it was too painful and difficult to think about writing a letter. It was hypothesised that Mr A's experience of shame (as both the vulnerable victim, and as the violent abuser) interfered with this process. This was explored in keywork sessions where Mr A voiced the desire not to 'lay blame' with his parents and acknowledged the desire to avoid difficult topics that generate painful emotions. Mr A's compassion focussed formulation was revisited with him to highlight how even though sometimes others try their best (e.g. parents), this can still fall short of meeting our needs, but that acceptance of this and the attribution of responsibility does not necessarily mean others are 'all good' or 'all bad' – a strategy which may help one to feel certain about others and their intentions. This stimulated further discussion around Mr A's internal resources for coping and belief in his own ability to tolerate painful feelings rather than to avoid them. Mr A was able to

return to group and present a thoughtful and empathic letter to his mother and father which acknowledged that despite sometimes their best efforts, his experience of childhood has had a lasting negative effect on him.

Module 3: Relationships

The aim of Module 3 was to consider current and recent experiences of relationship problems and link these to early attachment experiences through the introduction of psychoeducation on attachment theory. Mr A missed 3 of the scheduled 5 sessions of this Module which coincided with an increase in several life stressors and, ironically, the disruption of attachments both personal and professional. Mr A's mother had become unwell and was in hospital and he had experienced a changing of clinical practitioner. Keywork focussed on giving validation and support and exploring Mr A's experiences and expectations of attachments. Specifically, keywork focussed on Mr A's life trap/schema of 'emotional deprivation' and the expectation that others will not meet Mr A's emotional needs, and that he does not have sufficient emotional resources to cope. Motivational Interviewing techniques (Miller & Rollnick, 2012) were used to identify discrepancies between Mr A's stated ability to cope and previous positive examples of managing adverse life events. Mr A had additionally identified the Challenge group as a significant source of stress and negative affect and so attempts were made to bring Mr A back into group by reframing it as a space to gain support and perspective on current problems that are likely universally experienced by other group members. Towards the end of this module was the need to manage the ending with his Challenge keyworker. This was initially met with much resistance and expression of distress and inability to cope, however

adopting a mentalizing perspective (e.g. Daubney & Bateman, 2015) – an approach shown the be effective in the treatment of individuals with antisocial and borderline personality disorder diagnoses (Bateman & Fonagy, 2019) - was effective in managing this. Facilitator disclosure that they were also affected by the loss of relationships with both clients and co-workers was met with surprise by Mr A and signified the apparent regaining of mentalizing and a shift in the emotional intensity of the session.

Results

Following the departure of his keyworker and the writing of this case study, Mr A continued to attend the Challenge group. His Stable-2007 dynamic risk assessment was updated at the end of Module 3, along with the final battery of psychometrics.

Risk Assessment

My A's Stable-2007 score had reduced from 15 to 13 following 8 months of intervention, which is still within the 'high-risk' category (high = 12+). Specifically he had shown score reductions in the domains 'impulsivity' and 'negative emotionality'.

Psychometrics

Mr A's score on the Hostile Masculinity (HM) composite at each time point was generally low suggesting an endorsement of mostly non-hostile masculine traits (See Table 10). HM scores showed an overall decrease over the course of

intervention. Examining specific measures showed a decreasing trend in scores on AIV and HTW but an increase on ASB and AMMSA, although these changes were small. Notably, at T3, all scores reflected a negative endorsement of hostile traits (score < 3.5).

Mr A's score on the measure of SDO remained stable between time-points and was approximately equal to norms for a community sample (M = 2.72) (Nicol et al., 2007) and lower than norms for a sample of serving prisoners (M = 3.22) (Graham-Kevan, 2011) although there was variation in scores on SDO-D and SDO-E.

Mr A's Impression Management scores remained high across time-points, although there was a gradual decrease from T1-T3.

Table 10

Mr A's Baseline and follow-up scores on SDO, HM and IM.

Measure	**Score (Max: 7)**		
	T1 - Baseline	**T2 - 4-month**	**T3 - 8-month**
Acceptance of Interpersonal Violence (AIV)	4.00	3.00	2.00
Adversarial Sexual Beliefs (ASB)	1.22	1.56	1.78
Acceptance of Modern Myths about Sexual Assault (AMMSA)	2.03	2.18	2.40
Hostility Towards Women (HTW)	3.27	2.33	0.37

Hostile Masculinity Composite	2.63	2.27	2.19
SDO-D	2.75	3.50	2.50
SDO-E	2.50	1.75	2.75
SDO Total	2.63	2.63	2.63
Impression Management	6.40	5.50	5.00

Clinical Observations

In terms of Mr A's initial treatment goals, there was some positive progress towards achieving goals in each of the domains.

- Intimacy
    - Mr A continued to form strong attachments to others, especially professionals, however he made progress in being able to identify and anticipate when this might become problematic. Mr A negotiated a series of changes to his professional network within a short space of time, and despite schema activation and a strong emotional response, he did not revert to old coping strategies including substance use and the use of sex workers. Additionally, Mr A was observed both in group and by professionals in his wider network, to have more realistic expectations of relationships, including their limits and thus integrate healthier object-relations away from black and white thinking cognitive distortions.
- Pro-offending attitudes
    - There was some continued endorsement of the use of violence as an effective interpersonal strategy (stating that a previous

acquaintance was deserving of violence), however no expressed attitudes supporting violence against women. This is mirrored by relatively low scores on hostile masculinity psychometrics.

- Social Influences
    - Mr A remained limited in his social network, which consisted largely of professionals. He continues to have difficulties in developing a social network within the community and had ongoing disagreements with other residents in his supported accommodation.
- Sexual self-regulation
    - There was no evidence of contact with sex works or with other aspects of sexual self-regulation. Mr A maintained that his sex drive was low and that this was not a current concern. This is reflected in his Stable-2007 risk assessment.
- General self-regulation
    - Despite concerns regarding suspected substance use expressed by some professionals, there was no evidence of positive drug test results or any detection from polygraph screenings. Mr A reported that he had used alcohol on one occasion following a difficult Challenge group. There was a professional perception that as treatment progressed, Mr A appeared more authentic and willing to be upfront with professionals. However, there was continued concern that general self-regulation remains an area of challenge for Mr A and an acknowledgment that he is liable to withhold information from professionals that might portray himself in a negative light and detract from a narrative of redemption.

Discussion

Mr A is a case of an individual who has committed sexual violence against females. Given Mr A's antisocial personality traits, long period and custody and history of gang involvement, one would expect Mr A to obtain high SDO scores, and given his offending profile, one would also expect high HM scores. However, Mr A's SDO scores were indicative of an overall low endorsement of social dominance although they are in line with expected scores in community samples. Scores also remained unchanged throughout intervention. Given the relationship between SDO and ASVAW, that Mr A's SDO score is consistently low is perhaps surprising, although it is notable that research has found comparable rates of self-reported sexual violence between community and convicted sex-offender samples (Widman et al., 2013). It is possible that Mr A's SDO score reflects the current context that Mr A is in and relates to his position as an ex-offender within the community where the salience of social hierarchy is diminished. However, one might expect this to be slightly higher than a typical non-offending community sample.

It is notable that Mr A's Impression Management (IM) score remained high between time points, and so his *true* SDO score may be higher than what is observed here. In addition, whilst Mr A's IM scores decreased throughout intervention, his SDO score remained unchanged - in line with research highlighting the relative *stability* of social dominance (e.g. Kteily, Sidanius, & Levin, 2011). Mr A's decrease in IM score does however reflect clinical observations that he appeared to present with more authenticity as treatment progressed, however there remained a continued unwillingness to portray

oneself in a negative light. This perceived authenticity might additionally be related to developing therapeutic alliance and rapport.

Mr A's sexual offending can be effectively understood within the context of the CMM where distal factors on the 'antisocial/impersonal sex' constellation interact with 'hostile masculinity'. Mr A experienced an abusive home environment, started offending at an early age and had emotionally detached sexual relationships throughout adolescence and adulthood. These factors appear to have interacted with hostile attitudes towards women – for example beliefs that women are 'to be used' – to ultimately precipitate serious sexual aggression.

Mr A's engagement in a high-intensity treatment intervention largely based on attachment theory and the modelling of healthy interpersonal relationships coincided with reductions on an assessment of sexual risk, and positive progress was made towards reaching established treatment goals. Engagement in the treatment intervention additionally coincided with reductions in psychometric scores, notably on the hostile masculinity composite. Interestingly there were large decreases in scores on AIV and HTW and slight increases in scores on ASB and AMMSA. It is possible that each of the individual scales is measuring a slightly different latent construct. For example AIV's items use language associated with the use of force and dominance to obtain sexual intercourse, e.g. "Being roughed up is sexually stimulating to many women", whilst ASB and AMMSA primarily concern frequently encountered rape myths with less emphasis on sexual dominance, e.g. ASB - "In a dating relationship a woman is largely out to take advantage of a man."; AMMSA - "Interpreting harmless gestures as "sexual harassment" is a popular weapon in the battle of the sexes" . Hostility

Towards Women primarily taps into general appraisals of relationships with women, e.g. "I feel upset even by slight criticism by a woman". It is possible that the interpersonal focus of the intervention means that certain latent constructs are targeted more than others. For example, the focus on attachment experiences and interpersonal relationships more generally may have facilitated a changing of Mr A's attitudes towards sexual dominance and general appraisals of relationships of women, whilst attitudes towards rape myths which may be tolerated more by society – and as Chapter 2 highlights are relatively widespread – remain relatively unchanged by intervention. This is somewhat reflected in the clinical observations of Mr A's treatment progress, where he appeared to have healthier and more realistic expectations of non-sexual relationships, although whether this translated to sexual relationships remained unproven.

Consideration also needs to be given to the fact that Mr A started treatment remotely owing to Covid-19 pandemic restrictions and then started to engage in face-to-face treatment when restrictions were lifted. It is possible that this move towards greater interpersonal relating facilitated a shift in his scores, perhaps due to the increased opportunity for pro-social modelling and engagement with other group members. This change in treatment delivery may also be evident in his lowering of impression management scores. Perhaps the distance afforded by telephone contact meant there was greater opportunity for impression management strategies, which were less readily available in a face-to-face setting. Indeed, aspects of the treatment group focussed on engaging with shame-based avoidance which may be easier to enact through the medium of telephony.

Limitations

It is important to highlight that due to the sample size of one, interpretation of changes in scores should be treated with caution as scores at different time points may be subject to the unmeasured influence of confounding variables. Caution should also be given to single case study designs in terms of the generalisability of findings, and so conclusions drawn on the current case study cannot be reliably generalised to other contexts.

It is possible that any change in scores may be the result of Mr A's integration into the community, and the embracing of a non-offending identity and lifestyle, rather than any direct impact of the described intervention. Further, all measures were completed many years after Mr A's index offence and so it is not possible to compare Mr A's current attitudes with what they were immediately prior to his offending. Indeed, Mr A's current presentation is at odds with the character that is portrayed in accounts of the period before his index offence. Likely, the true agonist of change is a compound of treatment and non-treatment related factors.

Conclusion

The presented case study offers some perspective for how a high intensity intervention for the treatment of sexual offending may influence attitudinal change associated with hostile masculinity – a constellation implicated in sexual aggression. In the presented case, SDO remained highly stable and did not

appear to be a factor influenced by such an intervention. Social Dominance Orientation has distal overlap with many of the antecedents of the CMM (See Chapter One for a discussion) and is associated with attitudes supportive of violence against women (Chapter Two), however the present case study indicated that a treatment intervention effectively targeted HM scores, without impacting SDO scores. This may reflect the relative stability of SDO but may also indicate that SDO and HM have separate underlying processes. Whilst a general belief in gender-based inequality may lead one to form attitudes supportive of violence against women, this route appears incomplete in predicting whether an individual will perpetrate violence. Rather, the proximal HM path proposed by the CMM appears necessary in whether someone will behave sexually aggressively.

Chapter Four: How does social dominance and gender-role identity relate to perceptions that mitigate stalking

Abstract

Social Dominance Theory (SDT) posits that individuals differ in their level of social dominance orientation (SDO) – an orientation towards group inequality. High SDO is typically associated with being male and with occupying 'hierarchy-enhancing' roles, and social dominance is maintained through 'legitimising myths' including sexism, beliefs in gender role stereotypes and attitudes supportive of violence towards women, including rape myth acceptance and victim blaming. The present research identifies how SDO relates to perceptions that mitigate stalking (PMS) through the moderating variable of gender-role identity, in both the proto-typical male-female and atypical female-male stalking scenario. Two-hundred-and-fifteen participants responded to an online advertisement looking at 'perceptions of relationships'. Results showed that men were more socially dominant than women but that gender-role identity did not mediate the relationship between sex and SDO or moderate the relationship between SDO and PMS. Socially dominant men were the most likely to mitigate stalking behaviour. Both men and women were more likely to mitigate stalking when the perpetrator was female. Stalking mitigation was associated with perceiving that the perpetrator did not intend the target distress. Discussion of the findings considers separate processes in perceptions of stalking and further highlights how sexual orientation relates to both SDO and perceptions of stalking. Consideration is given to stalking victims who must navigate male dominated, 'hierarchy enhancing' criminal justice systems.

Introduction

The present chapter looks at how social dominance orientation and gender-role identity relate to perceptions of stalking within a fictional heterosexual ex-partner stalking scenario. Social dominance has been related to several gendered prejudicial perceptions (e.g. rape myth acceptance and victim blaming) however there is a lack of research in application to perceptions of ex-partner stalking, a set of behaviours typically involving coercive control, and which occurs within a framework of male dominance. Ex-partners are more likely to behave violently than other stalkers and so stalking is viewed as a risk factor for sexual aggression. Gender socialisation is operationalised through gender role identity - the degree to which men and women adhere to traditional gender roles – and is hypothesised to affect how men and women interpret the world using gendered schema (Bem, 1974). The stalking literature highlights how socialisation towards gender roles and the use of gendered sexual scripts impacts on how individuals perceive stalking behaviours. Therefore, those that adhere most strongly to traditional notions of male dominance and female subordination may be more likely to view stalking behaviours within the context of heteronormative courtship and be less able to identify when stalking behaviours become potentially harmful.

SDO and Gender

Social dominance research has shown men to typically produce higher SDO scores than women (Levin, 2004) and the authors of the theory have pointed to the differing roles of men and women within the social hierarchy as maintenance

factors. Pratto et al. (2006) argue that men typically occupy roles that are 'hierarchy-enhancing' – such as in policing, criminal justice, and the military – whilst women typically occupy roles that are 'hierarchy attenuating', e.g. caregiving roles such as therapists and healthcare workers. Other researchers however, have drawn attention to the mediating role of values (Caricati, 2007) and of gender group identification. For example, Dambrun, Duarte, and Guimond (2004) found that gender-role identity mediated the relationship between sex and SDO and that SDO *did not* mediate the relationship between sex and gender-role identity. Foels and Pappas (2004) and Snellman, Ekehammar, and Akrami (2009) have similarly found that gender-role identity measured using the BSRI mediates the relationship between sex and SDO. Foels and Pappas (2004) conclude that gender roles are a culturally socialised phenomenon, with men socialised towards dominance, and women socialised towards caregiving and nurturance and further identified how female participants with an ideological orientation towards feminism - a hierarchy attenuating ideology – can support the "unlearning" of SDO: away from a passive acceptance of the status quo.

That female participants can reduce their SDO scores begs the question of why those in a more subordinate group would, counterintuitively, hold beliefs that maintain their lower position in the social hierarchy. The SDT hypothesis of *ideological asymmetry* (Sidanius & Pratto, 2001) proposes that SDO interacts with ingroup identification and creates a strong positive correlation amongst those in the dominant group position but a negative correlation amongst those in the subordinate group position (Levin & Sidanius, 1999; Sidanius, Pratto, et al., 1994). What this means in practice is that those high in SDO support the strong against the weak, irrespective of their own group position and status. For

example, a large scale study in New Zealand found that women perceived their lower status compared to men as legitimate and exhibited a stronger relationship between SDO and benevolent sexism (Radke et al., 2018). Indeed, Fraser, Osborne, and Sibley (2015) propose that women who endorse constructs such as benevolent sexism may receive short term-benefits by doing so.

The consequences of a belief system oriented towards inequality have been well researched, and SDO has been shown to be a significant predictor of several prejudicial social attitudes including sexism and racism (Pratto & Walker, 2004; Pratto et al., 2006), negative attitudes towards gays and lesbians (Metin-Orta, 2019), rape myth acceptance (Hockett, Saucier, Hoffman, Smith, & Craig, 2009) rape victim blaming (Emelle, 2018). Specifically, the systematic review in Chapter 2 highlighted the strong relationship between SDO and a range of attitudes supportive of violence against women (ASVAW) in men, and in particular, the acceptance of myths about violence against women. Chapter 2 provided less conclusive evidence for the relationship between SDO and whether an individual *behaves* sexually aggressively. The Confluence Mediational Model (Malamuth and Hald, 2016) would suggest that the presence of overt hostility towards women is a necessary factor in whether a man commits actual violence towards a woman. However, whilst not evidence of whether a man will actually commit violence, Locke and Mahalik (2005) highlight how even conformity to traditional and acceptable norms of masculinity is linked to the endorsement of rape myths in college students.

Perceptions of Stalking

Whilst stalking behaviours themselves do not necessarily constitute violence according to the definition of having physical harm as its goal (Anderson & Bushman, 2002), stalking has been implicated as a significant risk factor for physical and sexual violence (Spitzberg & Cupach, 2007; Norris, Huss, & Palarea, 2011), and the level of aggression or violence present in stalking behaviours is on a continuum. What is characteristic in stalking behaviours however, is the resultant fear or distress of the victim (Sheridan & Roberts, 2011).

Stalking is often poorly identified and ill defined (BPS, 2023) and can vary widely in its form. For example, the relationship between perpetrator and target may vary by intimacy (e.g. ex-partners, acquaintances, strangers) and psychological motivation (e.g. the disgruntled ex-partner vs. the obsessed celebrity stalker). A particularly concerning finding within the stalking literature is that individuals are less likely to identify stalking if there was greater prior relationship intimacy between perpetrator and target (Scott, Lloyd, & Gavin, 2010). However, this is at odds with research highlighting ex-partners as the most dangerous and persistent type of stalkers (e.g. Mullen et al., 2006; Rosenfeld, 2004). Davis et al's (2012) research into ex-partner stalking conceptualises it as a set of behaviours occurring within a framework of male dominance and coercive control. In cultures where male dominance is the status quo then it is plausible that adherents to this worldview will be less able to recognise potential stalking behaviour.

Within UK law, 'stalking' has no precise legal definition, but is covered under Section 2 of the Protection from Harassment Act 1997 as amended (PHA) and

under Section 4, which includes the prerequisite that the perpetrator intended to cause the victim fear of violence, or serious alarm or distress (Crown Prosecution Service, 2018). In the absence of any precise legal definition one might surmise that there are different interpretations as to what might meet the threshold for stalking. For example, Miglietta and Acquadro Maran (2017) suggest that hostile sexists undervalued the psychological consequences for female victims whilst benevolent sexists were more likely to view stalking as 'annoying' but not 'dangerous'. Content analysis of Italian newspaper articles led Caputo (2013) to conclude that amongst other functions, hetero-normative stalking is interpreted as having a cultural function of maintaining gender inequalities. A meta-analysis of stalking prevalence identified the presence of threat in 54% of stalking cases and the presence of violence in 32% of cases (Spitzberg & Cupach, 2007). Given the potential for serious physical and psychological harm that stalking causes (Sheridan et al., 2003; Logan & Walker, 2009; Mohandie et al., 2006), it is important to understand the factors that influence perceptions of the behaviour.

Gender Differences in Perceptions of Stalking

The stalking literature identifies several differences in how men and women perceive cases of stalking. McKeon, McEwan, and Luebbers (2014) found that males endorsed more stalking myths (e.g. "stalking is romantic") than did females and that this was related to stronger judgments of not guilty in a fictional stalking case. Scott, Duff, Sheridan, and Rajakaruna (2018) found that stalking scenarios were perceived to be more serious when the perpetrator was a stranger compared to an ex-partner and that the prototypical male perpetrator-female target scenario was perceived to be more serious and

warranting of police intervention than the opposite female perpetrator-male target scenario. This is in line with previous research which has consistently shown that male perpetrators are perceived to be more dangerous than female perpetrators (Cass & Rosay, 2012; Kinkade, Burns, & Fuentes, 2005). This effect has also been observed in studies involving same-sex stalking scenarios. For example, Scott and Tse (2011) found that in both opposite- and same-sex vignettes it was the sex of the perpetrator and not the victim that influenced perceptions of stalking seriousness. Participants believed police intervention to be more necessary when the perpetrator was a male, irrespective of the sex of the victim. This bias is important to understand given that female perpetrators may be just as likely as male perpetrators to commit moderate levels of physical violence, for example, slapping and grabbing (Thompson, Dennison, & Stewart, 2010), although females (19.9%) are more than twice as likely as males (9.6%) to report being victims of stalking (Office for National Statistics, 2020).

Stalking and Gender Socialisation

Theorists have highlighted how gender socialisation and the development of sexual scripts of dating and courtship create differing perceptions of stalking (Dunlap, Hodell, Golding, & Wasarhaley, 2012). Dating scripts where the male is expected to persist despite the female's rejections are often reinforced by popular media (Langhinrichsen-Rohling, 2011) and some males may be slower to recognise when dating efforts become harassment (Dunlap et al., 2012). Gender socialisation scripts typically portray females as weaker and less dangerous and so stalking scenarios involving a female perpetrator may be viewed as less serious and female violence as more acceptable (Archer, 2000).

Male victims of stalking might believe that they are less likely to be taken seriously and are therefore less likely to report fear or distress as a result of stalking (Thompson et al., 2010). Scott, Rajakaruna, Sheridan, and Gavin (2015) found that in a stalking scenario, irrespective of perpetrator-target sex composition, male participants identified more with the role of perpetrator and female participants more with the role of victim. These findings are congruent with SDT where in patriarchal societies men are typically socialised to be dominant and are positioned higher in the social hierarchy.

Gavin and Scott (2016) have suggested that the perceptions of the boundary between 'normal' relationship behaviour and stalking is positioned differently for male and female perpetrators. Examining mock jury deliberations, they found that participants were more likely to mitigate for 'gender appropriate' behaviour, for example normalising male pursuit behaviours associated with courtship, and penalising 'gender inappropriate' behaviour such as by trivialising female-perpetrator behaviour. One might hypothesise that participant's perception of the stalking scenario and the subsequent decisions that they make are in part related to their endorsement of gender role stereotypes.

Within patriarchal societies, to maintain the status quo of heteronormative courtship – where males persist towards gatekeeping females – the socially dominant must perpetuate beliefs that mitigate stalking to preserve their position. To do otherwise might invite a challenge to men's 'legitimate' position in the hierarchy, forcing a re-evaluation of dating scripts and the inherent power that men are afforded in romantic relationships.

Aims and Rationale

Within the current study, ex-partner stalking is viewed as a set of harmful behaviours that can precipitate sexual aggression. Ex-partner stalking is viewed within the context of coercive control theory and against the backdrop of a culture in which men have greater power and dominance over women. It is hypothesised that within this context, those that support the status quo of male dominance (e.g. the socially dominant) will be more likely to endorse stalking myths and less likely to view an ambiguous ex-partner stalking scenario as potentially harmful. Individuals that view male power and dominance as legitimate may also be more likely to hold corresponding beliefs and sexual scripts about the roles of men and women in intimate relationships.

The present research proposes that the relationship between SDO and stalking myth acceptance is in part moderated by one's adherence to traditional gender stereotypes such as gender-roles. This is of particular interest to understand in relation to stalking, a behaviour that can cause significant harm, but which is often minimised or mitigated as within the realms of heteronormative courtship and led Sheridan et al. (2003) to comment that "stalking is an extraordinary crime, given that it may often consist of no more than the targeted repetition of an ostensibly ordinary or routine behaviour" (p.150). This research tests this relationship within both the prototypical male-female stalking scenario and atypical female-male scenario, as well as replicates several established patterns observed within the literature.

The secondary objective is to examine whether there is a relationship between perceptions that mitigate stalking and whether participants perceive a perpetrator to have caused the target distress – a key legal criterion for prosecution under Law in England and Wales (Protection from Harassment Act, 1997: section 4A).

This research contributes to the body of literature looking at perceptions of stalking and to the researcher's knowledge there exists no literature base examining the role of social dominance orientation in relation to stalking. If such a link is supported and the mechanisms by which gender inequalities are upheld are better understood, then future research might examine how these mechanisms can be mitigated within the context of perceptions towards sexual violence. This understanding would likely have practical implications for how victims of stalking are viewed by aspects of the criminal justice system, including police and the courts.

Hypotheses

H1: Men will score higher on SDO than women.

H2: Masculinity will predict higher SDO in men and femininity will predict lower SDO in women.

H3: The relationship between SDO and Perceptions that Mitigate Stalking (PMS) will be moderated by identity.

c. In men, masculinity will increase PMS scores.

d. In women, femininity will decrease PMS scores.

H4: Scores on PMS will be higher for both sexes in the atypical female-male scenario compared to the prototypical male-female stalking scenario.

H5: There will be a negative correlation between PMS scores and participants perceptions of intended distress.

Method

Participants

Two-hundred and fifteen participants (62% women) accessed the study via social media and via the online platform onlinesurvey.ac.uk. Most participants were under 35 years of age (75.4%), identified their ethnicity as white (74.9%) and their sexuality as heterosexual (77.7%). Approximately half of participants reported household income as £40000 or less (52.1%), and 33.0% of participants reported obtaining a Master's degree or higher.

Materials and Procedure

Participants were invited to take part in an online study looking at 'perceptions of romantic relationships' with the option to provide their email address to be entered into a draw to receive a £50 Amazon voucher. Following completion of demographic information, they were asked to complete a series of measures before being randomly allocated to view one of two stalking vignettes involving

'James' and 'Sarah' (See Appendix C), which were based on vignettes previously used by Scott et al. (2018). In Scott et al.'s (2018) study they found that these vignettes effectively differentiated observers' perceptions of stalking seriousness when aspects of the vignette were altered to create three relationship conditions – stranger, acquaintance, and ex-partner – such that the ex-partner scenario was perceived to be most serious. The present research used the same vignette used in Scott et al.'s (2018) ex-partner scenario. Content was identical in both vignettes except the names were alternated so that in one vignette, 'James' was the perpetrator, and in the other he was the victim. Following exposure to the vignette, participants were required to answer three questions about the vignette that assessed perceptions that mitigate stalking; a question asking about whether the perpetrator intended the target distress; and a question about whether the participant believed the behaviour to be stalking. Participants were fully debriefed following participation and signposted towards support services should they have found any of the material distressing.

Measures

Social Dominance Orientation (SDO)

Social Dominance Orientation was measured using the full 16-items from the SDO_7 Scale (Ho et al., 2015). Responses are given on a 7-point (1 = strongly oppose, 7 = strongly favour) Likert-type scale with 8-items endorsing a preference for group-inequality (e.g. *"Some groups of people are simply inferior to other groups")*, and 8 reverse scored items (e.g. *"Groups at the bottom are just as deserving as groups at the top")*. Scale reliability was high (α = .90).

Bem Sex Role Inventory (BSRI)

Gender socialisation was operationalised by measuring gender-role identity using the BSRI-short form (Bem, 1974), a widely used measure of traditional gender role attitudes. Participants were required to rate 20 self-descriptive adjectives on a 7-point (1 = never true, 7 = always true) Likert-type scale. Adjectives were categorised as being either typically masculine (e.g. *"dominant"; "aggressive")* or typically feminine (e.g. *"gentle"; "compassionate")*. Scale reliability was high for both masculine (α = .84) and feminine (α = .86) items. See Chapter 5 for a critique and rationale for selecting the BSRI.

Balanced Inventory of Desirable Responding Short-Form (BIDR-16)

Desirable responding was measured using the BIDR-16 (Hart et al., 2015), a short-form version of the BIDR-40 (Paulhus & Reid, 1991). Participants were required to answer questions on a 7-point (1 = not true, 7 = very true) Likert-type scale. The BIDR-16 consists of two-factors measuring Self-deceptive Enhancement (SDE) (e.g. *"I have not always been honest with myself"*) and Impression Management (IM) (e.g. *"I have said something bad about a friend behind their back"*). Reliability for SDE (α = .66) and IM (α = .70) was acceptable and in line with typical reliabilities for the BIDR-16 and BIDR-40 as reported by Hart et al. (2015)

Perceptions that Mitigate Stalking (PMS)

An initial 3-item PMS scale was developed based on research by McKeon et al. (2014) who factor analysed the Stalking Related Attitudes Questionnaire (SRAQ) (McKeon, 2010) and found three underlying stalking-related attitudes: a belief that 'stalking isn't serious', that 'stalking is romantic' and that 'victims are to blame'. Participants responded using a 7-point (1 = not at all, 7 = completely) Likert-type scale to questions identifying 'Seriousness'*: ("To what extent do you believe the perpetrators behaviour requires police intervention?"),* 'Romanticism'*: ("To what extent do you think the perpetrator's behaviour is romantic?"),* and 'Responsibility' (*"To what extent do you think the target is responsible for the perpetrator's behaviour?")*. These 3-items were factor analysed alongside the question on 'stalking' (*"To what extent do you think the perpetrators behaviour constitutes stalking?")* and produced a reliability of α = .71. Given the acceptable reliability, a decision was made to add this question to the otherwise brief scale to increase the amount of variance that can be captured in the dependent variable, and thus increase power.

Distress

To give an indication of how individuals might interpret stalking within the criminal justice system, participants were asked on the final survey screen; *"To what extent do you think the perpetrator intended to cause the target fear or distress?"* using a 7-point (1 = not at all, 7 = completely) Likert-type scale.

Demographic Variables

Ethnicity was measured as the social dominance literature suggests that it is inherently related to SDO, with white people identifying as more socially dominant than minority groups (e.g. Sidanius, Liu, Shaw, & Pratto, 1994). Sexual orientation was also measured as research suggests that SDO is a predictor in heterosexual males reaction to romantic rejection and female sexuality (Kelly, Dubbs, & Barlow, 2015) and Sheridan, Scott, and Campbell (2016) highlight that non-heterosexual participants report significantly more experiences of stalking victimisation than heterosexual participants, irrespective of sex. Therefore one might consider that sexual orientation may affect perceptions of stalking. Given that participants predominantly identified as 'white' and 'heterosexual', sexual orientation and ethnicity variables were dichotomised to represent dominant and non-dominant groups.

Results

Preliminary analyses

Social Dominance Theory highlights that SDO scores will significantly differ by sex (e.g. Levin, 2004) therefore one participant was removed who marked their sex as 'prefer not to say'. A preliminary regression analysis was conducted using SPSS Statistics version 27 (IBM Corp., 2020) to determine model parameters by regressing SDO on the following variables: sex, sexual orientation, ethnicity, IM, SDE, Masculinity, Femininity. Case diagnostics were calculated according to recommendations in Field (2013) for the detection of multivariate outliers.

Examination of residual statistics, Cook's distance and Mahalanobis distance identified two multivariate outliers. A decision was made to remove outliers after comparison of models with and without outliers showed more stable parameters with outliers removed. The variables ethnicity, SDE and IM did not significantly contribute to the model and ethnicity was removed from future regression analyses. However, SDE correlated positively with masculinity, and IM correlated positively with femininity and so they were included as covariates in later mediation and moderation analyses. Sexual orientation was significantly related to SDO, however examination of residual plots when retaining sexual orientation indicated the presence of heteroscedacity. Removing sexual orientation and reinspecting residual plots indicated that heteroscedacity was no longer a concern. Subsequent analyses did not include sexual orientation as a covariate. The resulting model was significant ($R^2 = 0.04$, $F(6, 205) = 2.50$, $p < .05$).

To determine whether the effect of sexual orientation was equal across sex a 2x2 analysis of variance was conducted. Bonferroni corrections were applied to test statistics. Levene's test statistic indicated that variance between groups was approximately equal ($F(3, 207) = 2.066$, $P = .106$). The interaction between sex and sexual orientation on SDO scores was non-significant ($F(1, 211) = 0.886$, $P = .348$) however sexual orientation was significantly related to SDO across sex ($F(1, 207) = 11.706$, $p < .001$) such that heterosexual participants had significantly higher SDO scores ($M = 2.40$, $SD = 1.04$) compared to non-heterosexual participants ($M = 1.84$, $SD = 0.78$). Table 11 shows the means and standard deviations of main study outcome variables.

Table 11

Means and standard deviations of main outcome variables by scenario and sex

Scenario (N)	Participant Sex (N)	SDO		PMS	
		Mean	SD	Mean	SD
Female Perpetrator (122)	Female (76)	2.13	0.84	2.49	0.96
	Male (46)	2.58	1.21	3.10	1.29
Male Perpetrator (89)	Female (55)	2.24	1.16	2.11	0.91
	Male (34)	2.24	0.74	2.05	0.71

The Indirect effect of Gender-role identity on Sex and SDO

To test Hypotheses 1 and 2, analyses were conducted to establish the indirect effect of masculinity and femininity on the relationship between sex and SDO following steps by Baron and Kenny (1986a). Indirect effects were computed using the PROCESS for SPSS Macro (Hayes, 2012), model 4. Masculinity and femininity were included as indirect variables in the same model. Self-Deceptive Enhancement (SDE) and Impression Management (IM) were included as covariates. At step 1 the total effect (Path c') of how the predictor (sex) relates to the outcome (SDO) was established. All significance values are one-tailed.

Men had higher SDO scores and the unstandardised regression coefficient was significant ($B = .268$, $p < .05$). Whilst controlling for other model variables,

masculinity was established to relate to SDO (B = .225, p < .05), but femininity was not (B = -.037, p = .320). However, sex did not relate to either masculinity (B = -.037, p = .380), or femininity (B = -.070, p = .288). Social Dominance Orientation was not related to SDE (B = .056, p = .257) or IM (B = .000, p = .995) in this model.

The resulting indirect relationship tests confirmed Hypothesis 1; that men will score higher than women on SDO. Hypothesis 2 was not confirmed as neither masculinity nor femininity had an indirect relationship with SDO.

The Effect of Gender-role Identity on SDO and Perceptions that Mitigate Stalking

Examination of residual plots with sexual orientation included again indicated that heteroscedasticity might be present and so it was removed as a variable from subsequent analyses. Ethnicity once again did not significantly contribute to an initial regression model and was removed as a variable. Conditional and interaction effects of gender-role identity and SDO on PMS were examined using a moderated multiple regression analysis (Aiken & West, 1991; Frazier, Tix, & Barron, 2004). Interaction effects were specified using product terms of standardised scores and analyses were entered using the PROCESS for SPSS Macro (Hayes, 2012), model 1. Stalking scenario, sex, SDE and IM were entered as covariates. Femininity was entered as a covariate when masculinity was moderator and vice versa.

The overall model with masculinity as moderator was significant ($\Delta R^2 = .20$; $F(8, 203) = 6.18$, $p < .001$), however a test of the highest order interaction of masculinity and SDO was non-significant ($\Delta R^2 = .01$; $F(1, 203) = 2.94$ $p = .09$). Inspection of conditional effects revealed PMS was uniquely predicted by scenario ($B = -.582$, $p < .001$), SDO ($B = .169$, $p < .05$), sex ($B = .339$, $p < .05$) and femininity ($B = .138$, $p < .05$). Testing femininity as moderator also produced a significant model ($\Delta R^2 = .19$; $F(8, 203) = 5.89$, $p < .001$), but an insignificant interaction ($\Delta R^2 = .004$; $F(1, 203) = 1.05$, $p = .31$).

Hypothesis 3 was not proven as neither masculinity nor femininity were shown to moderate the relationship between SDO and PMS. however femininity, but not masculinity did positively relate to PMS scores. Examining bivariate correlations (Table 2) shows that both femininity and masculinity were positively related to PMS scores, however only femininity significantly contributed to the model when considered alongside other study variables.

Further examining Table 12 suggests that PMS scores were significantly higher in the female perpetrator scenario, therefore confirming Hypothesis 4. Being male was related to higher PMS scores and higher SDO. High SDO was related to masculinity and a heterosexual orientation. Femininity was also related to higher PMS scores but unrelated to other variables.

Table 12

Bivariate correlations of predictor and moderator variables

Variable	1.	2.	3.	4.	5.	6.	7.	8.	9.
1. PMS	-								
2. Scenario	- .289***	-							
3. Sex	.134*	.007	-						
4. SDO	.209**	-.026	.140*	-					
5. Masculinity	.172**	.001	-.012	.213**	-				
6. Femininity	.125*	-.106	-.048	-.030	.026	-			
7. Sexual Orientation	.155*	.122*	.048	.250***	.111	.068	-		
8. Ethnicity	-.066	.180**	.152*	-.480	-.151	-.039	.067	-	
9. SDE	.115*	.078	.015	.131*	.376***	.071	.149*	.002	-
10. IM	-.088	.160*	.024	.012	-.014	.182**	.059	.044	.276***

Sex coded: 0 = female, 1 = male, Scenario coded: 0 = Female perpetrator, 1 = male perpetrator: Sexual Orientation coded: 0 = non-heterosexual, 1 = heterosexual. Ethnicity coded: 0 = non-white, 1 = white.

*p<0.05, **p<0.01, ***p<0.001.

Perceptions of Distress

A correlation analysis between study variables and perceptions of the perpetrator's intended distress towards the target indicated that PMS was significantly negatively correlated with perceptions of distress ($r = -.203$, $p < 0.01$). Perceptions of distress did not significantly correlate with any other study variable. Hypothesis 5 is therefore confirmed.

Additional Analyses

Given the lack of predicted findings for H2 and H3, an independent sample t-test was conducted to identify differences in masculinity and femininity by sex. Male ($M = 4.41$, $SD = 0.95$) and female ($M = 4.44$, $SD = 0.88$) participants did not differ on scores of masculinity, $t(210) = .203$, $p = .987$. Male ($M = 5.08$, $SD = 0.72$) and female ($M = 5.14$, $SD = 0.97$) participants also did not differ on scores of femininity, $t(201) = .510$, $p = .610$.

Summary

H1: In line with SDT, men produced higher SDO scores than women.

H2: Sex did not relate to gender-role identity, however high masculinity related to high SDO. Femininity and SDO were unrelated

H3: PMS was uniquely predicted by being male, high SDO, and high femininity. However, masculinity and femininity did not moderate the relationship between SDO and PMS.

H4: Participants were significantly more likely to have perceptions that mitigate stalking when the perpetrator was a female.

H5: Having greater perceptions that mitigate stalking meant participants were less likely to perceive that the perpetrator intended the target distress.

Discussion

The present study reinforces some of the findings consistent with the social dominance and stalking literature, however key hypotheses, notably that gender roles would modify the relationship between SDO and PMS, were only partially confirmed.

Sex, Gender-role identity, and Social Dominance.

As predicted by Social Dominance Theory, men had higher social dominance than women. However the hypothesis that the relationship between sex and SDO would have an indirect effect through gender-role identity was not proven and in fact there was no direct relationship between sex and gender-role identity. This is at odds with previous research (Foels & Pappas, 2004; Snellman et al., 2009) which found an indirect effect. This is likely due to the lack of differentiation between male and female masculinity and femininity scores on

the measure of gender-role identity – possibly related to changing cultural attitudes towards gender norms – which might be both general and sample specific. Given the lack of sex difference, and high means on both masculinity and femininity it is probabilistic that the present sample would be considered 'androgynous' (highly scoring on both dimensions) rather than 'sex-typed' (Bem, 1974).

Higher masculinity did however relate to higher SDO as expected. Traits typically associated with masculinity – as measured by the BSRI – include 'dominant', 'aggressive', 'and 'forceful' which one might expect at face value to relate to social dominance. However, that men were still more socially dominant than women, despite showing no difference in masculinity and femininity scores gives support to the 'invariance hypothesis' advanced by the authors of SDT – that *all things equal*, men and women will differ in their level of SDO (Pratto et al., 2006). Social Dominance Theory argues that men are more likely to stand to gain from high social dominance and consequently are more motivated to maintain their position in the hierarchy, along with the associated benefits such a position provides. By contrast females, whose position is lower in the hierarchy – and as Pratto et al. (2006) would argue is 'invariant' – may acknowledge the futility of trying to better their position and be less motivated to change it *either way*, and hence their relationship to SDO is weaker.

Femininity, however, was not related to SDO, potentially due to the lack of expected difference between men and women on the BSRI. This is unexpected given that one would predict that traits in the femininity scale such as 'compassionate' and 'sensitive to the needs of others' would correlate with a

belief in *equality* of groups. Femininity did however strongly relate to impression management – a desire to present oneself favourably to others – and so participants may have been selecting self-descriptive characteristics from the list of feminine items that they perceive to be socially desirable rather than objectively true. Social Dominance Orientation was not related to IM suggesting that respondents were more genuine in their responses on this scale. Whilst SDO correlated with SDE (Table 2), this was reduced to insignificance in the indirect model when including masculinity, which also correlated strongly with SDE – a tendency to provide honest but self-enhancing responses. It is important to note that such discrepancies might also be symptomatic of the BSRI's scale construction.

Predicting Perceptions of Ex-partner Stalking

Participants were much more likely to mitigate stalking when the perpetrator was female, supporting previous research that found individuals were more likely to trivialise female perpetrated stalking behaviour (Gavin and Scott, 2016) and view it as less serious (Archer, 2000). This was unrelated to SDO or the sex of the participant indicating that this was the single biggest factor influencing an individual's perception of stalking. Where participants mitigated stalking, they were less likely to perceive the perpetrator as intending the target distress.

As expected, social dominance was a significant predictor of perceptions that mitigate stalking and is line with the SDT literature and the systematic review in Chapter 2. Men were also more likely to mitigate stalking than women which supports McKeon, McEwan and Luebbers (2014) who found that men endorsed

more stalking myths than females. Both masculinity and femininity related to PMS scores, however only femininity was uniquely related when also accounting for SDO. Sexual script theory (Simon & Gagnon, 1987), proposes that adherence to culturally determined sexual scripts may affect one's perception of cultural scenarios, and considered within the context of stalking, one would expect individuals that adhere more strongly to traditional gender-roles may be more likely to view stalking along the lines of heteronormative courtship and less in terms of a harmful sexual behaviour. Returning to Bem's (1974) concept of *androgyny* and it's alternate of 'sex-typing' (i.e. increased masculinity *or* femininity), androgyny has been related to greater cognitive flexibility (Reilly, Neumann, & Andrews, 2016) and so by contrast may relate to greater objectivity in perceiving stalking behaviour, when compared to 'sex-typed' individuals. As one aligns more strongly with a particular gender-role then this may mean one also shows greater adherence to heteronormative dating scripts and thus increased perceptions that mitigate stalking. This perspective seems plausible in cultural contexts where heteronormative dating scripts typically dominate media and cultural discourse, and popular streaming services feature series where even violent stalking is romanticised (e.g. Krishnan, 2019).

Gender-role identity as Moderator of SDO on PMS

Contrary to what was predicted, neither masculinity nor femininity moderated the relationship between SDO and PMS, suggesting that SDO and gender-role identity may relate to PMS through separate processes. When viewing an ambiguous stalking scenario, an individual high in SDO might be attuned to the perceived salience of sex difference and may be more likely to perceive stalking

as a justified behaviour of hunter and hunted. Conversely, those with a tendency towards a masculine or feminine gender role – as opposed to androgyny – might view stalking through the lens of cultural dating scripts and in the absence of alternative scripts perceive it as 'normal' behaviour. Whilst SDO may relate to whether one is able to recognise certain behaviours as risky (or violent), perhaps the risk for actual violence is more closely related to the strength of one's gender socialisation, with for example 'hostile masculinity' at one end of a continuum of masculinity. The unexpected similarities in scores on the BSRI makes further elaboration on this concept difficult and beyond the scope of the present research, however future research might examine whether such a dual-process model of stalking perception (or perpetration) is justified.

Sexual Orientation

The strong correlation between heterosexuality and social dominance is unremarkable given the prevalence of heteronormative narratives within patriarchal societies and is expected within the framework of SDT. However, it is somewhat unexpected that the strength of this relationship far exceeded that of SDO with either sex or ethnicity, and that this relationship was equally strong in both male and female participants. There is a lack of research within the social dominance literature examining sexual orientation and the present study suggests that a significant amount of variance in SDO can be accounted for by one's sexual orientation. If social dominance is a culturally and socially learned phenomenon, then perhaps heterosexuals and non-heterosexuals have fundamentally different social learning experiences within patriarchal societies. Perhaps heterosexuals are socialised more towards binary identities and

worldviews, whilst the nuances of one's non-hetero sexuality affords a wider appreciation and acceptance of different groups and identities. Additionally, one might argue that non-heterosexuals are in the most subordinate position and remain persecuted irrespective of sex and ethnicity (only within the last 10 years has same-sex marriage been made legal in the UK). Perhaps then non-heterosexual communities are the most motivated to reject the patriarchal status-quo. Heterosexuals were also more likely to mitigate stalking, possibly because the behaviour aligns with expected scripts. Non-heterosexuals by contrast may have a wider repertoire of dating scripts and thus may be better able to spot potentially harmful dating behaviours. Future research might seek to investigate how sexual orientation relates to SDO and to perceptions of other social groups.

Practical Implications

This research has practical implications for how victims of stalking are perceived and treated within the criminal justice system. Hierarchy enhancing roles within the criminal justice system (Levin, 2004) are overwhelmingly male dominated at the level of police officers (UK Home Office, 2021), barristers, and judges (UK Ministry of Justice, 2021). That individuals more likely to mitigate stalking might occupy these roles may account for stalking victims negative experiences of reporting harassment and stalking (e.g. Taylor-Dunn, Bowen, & Gilchrist, 2018) and explain why male victims of female perpetrated stalking may be less likely to be taken seriously. Given the potential for stalking to cause significant psychological and physical harm it is important that the criminal justice system can recognise any bias that mitigates stalking so that perpetrator behaviour is

treated seriously and dealt with appropriately, and so that stalking victims feel empowered to come forward in the belief that their experiences will be treated with respect, and that they will receive necessary support.

Limitations

A main limitation of the current research is that it was conducted online using an artificial paradigm based on limited information, and so may not fully capture an individual's perception of a real-life stalking scenario. Additionally, the BSRI construct used to measure gender roles was created almost 50 years ago, and hypotheses using this measure were largely unsupported. Whilst there may be theoretical reasons for the unexpected results, there may also be the parsimonious explanation that the BSRI does not accurately reflect gender roles in modern society. This is especially relevant given the age range in the present research - that approximately 90% of participants were not born when the construct was normed. It is likely that the gender norms of the cohort in the present research are somewhat different from that of their parents and grandparents. Future research may seek to replicate this research with a more modernised and well-validated measure of gender roles, of which, to the authors knowledge, does not yet exist. A final limitation is the confounding effect of sexual orientation in the present research. Given the unequal group sizes of heterosexuals compared to non-heterosexuals, and the presence of heteroscedasticity it was not possible to examine this confounding effect without a significant loss of power. Future research would benefit from examining SDO in relation to stalking using a well-balanced design across sexual orientation.

Conclusion

The present research did not confirm the central hypothesis that SDO would relate to perceptions of ex-partner stalking through the moderating variable of gender-role identity. However, several findings presented replicate those found in both the social dominance literature (e.g. that SDO is invariant between men and women) and the stalking literature (e.g. that participants take male perpetrated stalking more seriously). Despite the lack of moderation effect, both SDO and gender-role identity relate separately to stalking perceptions and future research may wish to explore further how these processes develop, and whether there are common antecedents. The present research also highlights the relationship of sexual orientation to both SDO, and perceptions of stalking, and future research may wish to develop paradigms to test this further. The relationship of SDO to perceptions of stalking has implications for male-dominated systems that maintain hierarchical norms. Systemic recognition of patriarchal biases would help women within these systems to feel empowered to believe that that the system is acting according to their interests and have greater faith in the delivery of positive outcomes.

Chapter Five: A Psychometric Critique of the Bem Sex Role Inventory (BSRI)

Abstract

The Bem Sex Role Inventory (BSRI) is a widely used measure that differentiates between individuals that behave consistently according to traditional gender roles (masculinity/femininity) and those that do not (androgynous/undifferentiated). Androgyny has been shown to be related to increased cognitive and psychological flexibility. The BSRI has been criticised in the 50 years since its development as being poorly operationalised in its construction, and of not having a clear and replicable factorial structure – with replications typically identifying a multifactorial nature. The BSRI-has been shown to have consistently good reliability. The author of the scale has responded to some of the criticism by creating the BSRI-short form which has been shown to be much more empirically sound. Despite its criticism the BSRI has been well validated cross-culturally, and with different populations (non-American students) to which it was first developed. The present research replicated the factorial structure using a diverse online sample (n = 215, 62.3% female) finding comparable results to earlier replications. The BSRI-Original scale produced a multifactorial structure with two main components, consisting of 13 of 20 original masculine traits and half of the original feminine traits. The BSRI-short form was empirically sound and omitted only one of the original feminine traits. Discussion highlights that despite criticism, the BSRI remains widely used and the short form at least remains a valid and reliable tool for measuring gender-role identity. Further research is needed in the field of gender studies to determine whether the concepts 'masculinity' and 'femininity' fully reflect modern conceptualisations of gender-role identity.

Introduction

The Bem Sex Role Inventory (BSRI) is a widely used measure of an individual's adherence to sex-roles and has been subject to several previous critiques and meta-analyses (e.g. Holt & Ellis, 1998; Donnelly & Twenge, 2017; Hoffman & Borders, 2001). Given the lack of expected results using the inventory in Chapter 4, it was considered that a psychometric critique and factor analysis of the scale would be useful to explore the unexpected findings. In contrast to other measures of gender-role identity commonly used within the feminist literature (see below) the BSRI was selected for use in Chapter 4 because it measures an individual's conformity to social expectations of men and women's gender-roles. The degree to which men and women conform to masculine or feminine gender-roles affects one's interpretation of the world along traditional gendered norms. Adherence to traditional gender-role belief systems is related to social dominance orientation (Whitley & Ægisdóttir, 2000) and the BSRI has been indicated in the CMM literature to moderate risk factors for men's sexual aggression towards women (Dean & Malamuth, 1997).

The present research discusses the development of the BSRI, including the reliability and validity concerns that it has attracted since it's development. The author's response to this criticism and the subsequent development of a short-form inventory is highlighted. A factor analysis of the original- and short-form of the inventory is presented using the sample from Chapter 4 and the factor structure is discussed in relation to previous critiques. Finally, a discussion on the inventory's current validity and utility is explored.

A Review of Previous Critiques

Background

Originally developed by Sandra Bem (Bem, 1974), the BSRI was constructed within the context of personality and social psychology and in response to then academic debate about whether one should assume 'consistency' or 'inconsistency' as the default in an individual's cross-situational behaviour. Bem (1979) aligned with the belief that 'consistent' (rather than inconsistent) behaviour was likely to be the interesting behaviour in need of further explanation and designed the BSRI to discriminate between those individuals that conform to cultural definitions of 'sex-appropriate' (consistent) behaviour and those that do not (inconsistent). The scale was developed in 1970's United States, at a time when expectations of the roles of men and women within contemporary American society were quite different from today, especially expectations towards work and family life. For example, Donnelly et al. (2015) highlights trends showing that US samples from 1976-2013 became more supportive of working mothers and stay-at-home fathers. Bem (1979) argued that men and women differ in the degree to which they are attuned to societal notions of masculinity and femininity, and the degree to which they are likely to use gender as a cognitive schema for interpreting the world. According to Bem, 'Sex-typed' males score highly on masculinity and low on femininity and 'sex-typed' females score highly on femininity and low on masculinity. Bem (1974) further differentiated an 'androgynous' sample of the population – who score highly on both masculinity and femininity – and an 'undifferentiated' sample – that score lower on both dimensions – who are less motivated to align their

behaviour according to societal definitions. The purpose of the BSRI therefore was to enable the identification of such 'sex-typed' individuals in empirical research. Research using the BSRI has shown that gender-role identity mediates the relationship between sex and cognitive ability such that androgyny predicts greater cognitive flexibility (Reilly et al., 2016). Other researchers have shown androgyny to relate to self-esteem (Buckley & Carter, 2005) and adaptability (Masters & Hayes, 2020).

Bem (1981b) went on to test this theory – coined Gender Schema Theory – using the BSRI in a series of experiments, finding that previously categorised 'sex-typed' individuals were more likely to cluster target words by gender in a subsequent recall task, and had lower response latency when deciding whether schema-consistent BSRI attributes were self-descriptive or not. The BSRI was pioneering at its time of development in that it treated masculinity and femininity as orthogonal constructs, as opposed to two poles on the same continuum (Donnelly & Twenge, 2017), however the theoretical underpinnings of the BSRI have also invited significant critique (e.g. Pedhazur & Tetenbaum, 1979; Spence & Helmreich, 1981; Hoffman & Borders, 2001; Choi & Fuqua, 2003).

Rationale for selecting the BSRI

Several other measures of gender-roles exist, most notable the Personality Attributes Questionnaire (PAQ) (Spence et al, 1975). Many of these early measures employ a dichotomous masculine-feminine scale (e.g. Sex Role Attitudes Questionnaire (Broverman, Vogel, Broverman, Clarkson, &

Rosenkrantz, 1972)) treating masculinity and femininity as poles on a continuum. Other measures or gender-roles often focus on attitudes towards one specific sex (e.g. Attitudes Towards Women Scale, (Spence, Helmreich, & Stapp, 1973); Attitudes Towards the Males Role Scale, (Falkenberg, 1983)); whilst some have focussed on aspects of behaviour and interests rather than traits and attributes (e.g. Sex Role Behaviour Scale (Orlofsky, 1981)). The BSRI was selected in the present thesis as it treats masculine and feminine traits as orthogonal traits underpinned by Gender Schema Theory (Bem, 1981), which implies a cognitive learning-based approach to gender-role development. The implication of such an approach is that gender is a socially constructed phenomenon, influenced through cultural attitudes towards the roles of men and women. Shelley et al. (2011) discuss how gender roles can become socialised within police forces that 'do gender'. The authors highlight how in gendered institutions such as policing, women may be at a disadvantage and have to adopt strategies to navigate the environment, such as adopting more masculine characteristics which 'de-feminise' them, or adhering to traditional female characteristics which might hinder opportunities for career advancement within this environment. Both strategies have consequences for women and serve to maintain gender inequality within the policing profession.

Gender Schema Theory is concordant with a SDT perspective of socialised gender roles and the CMM's view of violence against women as a socially constructed behaviour. Despite criticisms of the BSRI that will be explored below, Bem's Gender Schema Theory has retained widespread international and interdisciplinary reach up to present (Starr & Zurbriggen, 2017).

BSRI Scoring

The original scoring method for the BSRI was to differentiate femininity and masculinity scores by way of a Student's t-test. If this test was significant then the individual was said to be 'sex-typed' in the according direction, and if there was no significant difference they were said to be 'androgynous'. In response to research by Spence, Helmreich, and Stapp (1975) – who pointed out that classification by such a method yielded no discernible difference between high scorers on both masculinity and femininity, and low scores on both dimensions – Bem (1977) revised the scale so that differentiation was calculated by way of a median split. Subsequently the categories of 'androgynous' (high on both dimensions) and 'undifferentiated' (low on both dimensions) were distinguished, in addition to 'sex-typed' categories (e.g. above median masculinity/below median femininity). However, this classification system creates additional issues – which are acknowledged in the BSRI manual – for example, an individual would be classified as Feminine if they scored one-point above the median on the femininity scale and one-point below the median on the masculinity scale. Clearly such a classification is inaccurate given near identical scores and is explained as follows in the manual: "Such cases are an inevitable part of any classification scheme, and they constitute an additional source of "noise" or error in any research design" (Bem, 1981c p. 18). The manual offers a hybrid classification method utilising difference scores and the median split, however recommends the median split method for most purposes owing to its 'simplicity'. Hoffman and Borders (2001) contend that such a classification system according to medians is inherently meaningless as such a system means that scale scores are only important in relation to medians and each other. However, it is of note

that this classification system is also used in the Personal Attributes Questionnaire (PAQ) (Spence et al., 1975), another widely used tool in the study of gender-role identity.

Hoffman and Borders (2001) assessed the variability between scoring method by classifying 273 female and 98 male undergraduate students using both methods. They found classification differences in 41% of respondents using the original scale, and 34% in differences in using the short form (compared to figures of 24% and 29% respectively as reported by Bem (1981a)). Bem (1977), when revising her classification system suggested that research using multiple regression might treat masculine, feminine and androgynous scales as continuous, however this scoring method is not reported in the BSRI manual.

Item Selection Strategy

In constructing the BSRI, Bem and her students selected approximately 200 personality characteristics that appeared to be either positively masculine or feminine. From this pool they then asked 100 undergraduate students from Stanford University (50% female) to rate each characteristic's desirability 'for a man' or 'for a woman' according to American society (e.g. "In American society, how desirable is it for a man to be dominant?"), using a 7-point scale from 1 ("Not at all desirable") to 7 ("Extremely desirable). Students rated either 'for a man' or 'for a woman', but not both. Characteristics were chosen to be masculine if "four independent groups of judges" (Bem, 1979, p. 1049) identified the characteristic as being significantly more desirable for a man than a woman, and feminine if they rated it as being significantly more desirable for a

woman than a man. This resulted in 76 items, 20 of which were selected for the femininity criteria, and 20 for the male criteria. The BSRI manual does not mention that the characteristics were chosen by 'four independent judges' and this appears to be first detailed in a reply from Bem (1979) to a critique by Pedhazur and Tetenbaum (1979). This item selection strategy has also been criticised for using 400 independent t-tests to determine each items significance – therefore inflating Type 1 error – and a lack of clarity about how the 20 items in each domain were selected from the wider item-pool (Pedhazur & Tetenbaum, 1979; Hoffman & Borders, 2001). In response to this critique, Bem (1979) claimed that the argument was moot because rating by four independent judges meant the probability of a chance finding for each item was .00125

The original item selection strategy was replicated by Walkup and Abbott (1978) using the same instructions in a sample of college students, and found that 18 of the 20 masculine items, and 19 of the 20 feminine items were found to match the selection criteria in the original sample. Holt and Ellis (1998) performed another replication over two decades later to validate whether gendered attitudes towards certain items have shifted, finding that all but two of the feminine items were rated in the same way as the original sample, suggesting that the BSRI remained a valid measure on gender role perceptions in 1990's America. Holt and Ellis (1998) did however report that the magnitude in difference scores was smaller than in Bem's (1974) original sample which led the authors to conclude that attitudes might be changing and may become invalid in future decades.

BSRI – Short Form

The BSRI-Short Form was created some years after the original scale (Bem, 1979) and attempted to address some of the earlier critiques that some items on the original did not load as expected onto the two domains of masculinity and femininity. This revised scale was based on factor analysis of the original scale (Bem, 1981b) and resulted in a reduction of items from 20 to 10 on each dimension. Bem (1979) herself contended that the short form may be a 'purer' measure of the constructs under investigation and is supported by subsequent confirmatory factor analyses (e.g. Campbell, Gillaspy, & Thompson, 1997, as cited in Choi and Fuqua, 2003).

Face Validity

The BSRI was criticised by Spence and Helmreich (1981) who contend that – based on factor analyses – it does not measure global constructs of masculinity and femininity, but instead socially desirable *instrumental* and *expressive* traits. In reply to this critique, Bem (1981a) asserts that for non sex-typed individuals the scale may by measuring instrumentality and expressiveness, but for sex-typed individuals it is measuring masculinity and femininity, referring to her previous assertion that "one's self-description on the BSRI reflects different things for different people" (Bem, 1981b p. 370). One might reasonably follow up this assertion by asking 'what then, does the BSRI actually measure?'.

Construct Validity

Choi and Fuqua (2003) report a series of 23 validation studies conducted on the BSRI and highlight some issues with construct validity. Specifically, the BSRI is criticised for purporting that its domains are unidimensional even though item selection was based purely on college student perceptions and no factor analysis was conducted to establish the structure of the dimensions until 1981. The samples in Choi and Fuqua's (2003) study were predominantly student samples (n = 16), however the authors did report some slight variation in factor structure with non-American college student samples, typically finding more trivial factor patterns in addition to the main masculine and feminine factors.

The BSRI received similar early critiques from Pedhazur and Tetenbaum (1979) – that the scales were not based on theoretical definitions of 'masculinity' or 'femininity' but an empirical approach – to which Bem (1979) responded at the time by arguing that the theoretical underpinnings of the scale are that the "cultural expectations and prescriptions are well known by virtually all members of the culture" and therefore "virtually any sample of American adults would be qualified [to judge]" (Bem, 1979, p. 1048).

Femininity Construct

Choi and Fuqua (2003) report some tentative support for the femininity construct of the BSRI, in that 16 of 23 studies reported a single factor of femininity in line with that proposed by Bem (1981) that appears to reflect 'expressive, or communal traits'. However, they further highlight that "the fact that half of the [femininity] items did not load significantly in 23 studies indicates that the BSRI was developed empirically without adequate operationalization of the construct" (Choi and Fuqua, 2003, p. 879).

Masculinity Construct

Of the studies that Choi and Fuqua (2003) reviewed, the masculinity construct accounted for only 5-20% of the total variance and several studies reported a multidimensional nature to the construct. The authors conclude that the factor might be more adequately conceptualised as comprising of two components: *agentic* and *instrumental.*

Factorial Analysis of the BSRI

Choi, Fuqua, and Newman (2007) report that most studies employing exploratory factor analyses (EFA) of the BSRI cite either a two-factor solution of: instrumentality and expressiveness, or a four-factor solution similar to that first reported by Pedhazur and Tetenbaum (1979) consisting of: interpersonal sensitivity, assertiveness, self-sufficiency, and a bipolar masculine/feminine dimension (containing items from both). They go on to report that a confirmatory factor analysis (CFA) of the BSRI has not fit this factor structure well and instead suggest a hierarchical factorial structure.

Choi, Fuqua and Newman (2007) successfully replicated an earlier factorial model by Blanchard-Fields, Suhrer-Roussel, and Hertzog (1994), finding support for a hierarchical structure to the BSRI, with seven first order factors: compassionate, interpersonal affect, shy, decisive, dominant, athletic and self-sufficient; and two second order factors: masculine and feminine (Final model: $x^2(143) = 262.40$, $p < .001$, x^2/df ratio = 1.83, NFI = .92, NNFI = .95, CFI = .96, and RMSEA = .05). Despite this second-order factor structure fitting the data well, they caution against using the BSRI as a measure of global

masculinity or femininity without considering their multifaceted structures. However, conclude that it may not be wholly unreasonable as a measure of narrower constructs such as expressiveness and instrumentality (Choi, Fuqua and Newman (2007), p. 830).

In a second paper, Choi, Fuqua, and Newman (2008) replicated a factor analysis by Pedhazur and Tetenbaum (1979) and based on the findings reiterate the criticism that there is a different factorial structure for the BSRI constructs depending on whether an individual is self-rating traits or whether they are rating traits as *desirable* for an abstract other. Given that that the original items were selected by Bem (1974) based on judges rating them as desirable for the average American citizen, Choi et al. (2008) argue that the BSRI is therefore not well validated for its most popular use as a self-rating scale. Despite criticism of the BSRI, some CFA's have provided support for its structure. For example, Harris (1994) found that it appears to be a valid measure for Anglo American groups, but less so for Hispanic and African American groups.

Criterion validity

Pedhazur and Tenenbaum (1979) argue that the BSRI assumes 'masculine' and 'feminine' traits characterise males and females respectively, and that subsequently traits should not be used to characterise the other sex. They continue that the consequence of this trait selection method is that rather than the traits included in one domain reflecting those *desirable* for that sex it actually reflects those perceived to be *less undesirable* for that sex. Further, the authors conducted a discriminant analysis of the BSRI traits finding that the

individual traits of 'masculine' and 'feminine' contained within the full set were the largest discriminators between the two groups of traits, over and above the full set of traits contained in each dimension.

Concurrent Validity

A similar and widely used measure of gender roles is the Personal Attributes Questionnaire (PAQ) (Spence et al., 1975). Whilst theoretically similar, the BSRI claims – by the way of gender schema theory – to measure broad gendered concepts of 'masculinity' and 'femininity' whilst the PAQ claims only to measure the personality traits of 'instrumentality' and 'expressiveness'. Spence (1991) reports correlations between the BSRI and PAQ on the masculinity dimension as consistently high (r = .72 - .84), but lower for the femininity scales (r = .52 to .71), which Spence (1991) attributes to items on the BSRI that do not measure 'expressive' traits most identified as the main factor through factor analyses. However, the BSRI short form and PAQ have high correlations for both masculinity (r = .72) and femininity (r = .75) scales.

Population Validity

The BSRI was originally developed with samples of American college students and subsequent validation studies and reviews have attempted replication using the same samples (e.g. Donnelly & Twenge, 2017). There has been mixed research on the validity of the BSRI with other populations. Vafaei et al. (2014) found that the BSRI was a valid measure for use in a population of older (65+) Spanish adults. Chung (1996) found that internal consistency of the BSRI was

comparable for a sample of homosexual (BSRI-M, r = .86; BSRI-F, r = .74) compared to heterosexual (BSRI-M, r = .90; BSRI-F, r = .73) male college students and Oswald (2004) suggested that the BSRI remained valid for use almost 30 years after its construction in a population of both college students and working adults.

However, other research has failed to cross-validate, for example in a population of video game developers, Prescott and Bogg (2011) found that whilst a principal component analysis produced two components, the composition of masculinity and femininity dimensions had changed such that femininity included traditionally masculine traits such as 'independent' and 'dominant', and the masculine dimension included traditionally feminine traits such as 'warm' and 'compassionate'. The authors consider the context of video game development in which this research was conducted, and that certain traits may be specifically adaptive for such a workplace.

Cross-cultural validity

Attempts to validate the BSRI in different samples have been mixed. Ward and Sethi (1986) found that the BSRI was not a valid measure in a population of Malaysian (n = 210) and South Indian (n = 237) university students, whilst Wilson et al. (1990) report that the BSRI produced clear Masculine and Feminine factors in a population of Zimbabwean trainee teachers (n = 488), and Katsurada and Sugihara (1999) report good validity in a population of Japanese college students (n = 289) finding all masculine items were rated as significantly

more desirable for males and 17/20 items were rated as significantly more desirable for females.

Reliability

Internal consistency measures the degree to which the items of a scale hang together and purportedly measure the same construct and is typically measured using Cronbach's alpha (α). Ursachi, Horodnic, and Zait (2015) report on general rules of thumb of acceptable levels of internal consistency when α > .70, and good reliability when α > .80. Test-retest reliability measures how well scores correlate with each other when tests are repeated with the same subjects at a later time-point.

Despite the criticism levelled at the BSRI regarding validity, the literature has generally reported that the measure has good reliability. The original reliability scores are reproduced from the BSRI Manual (Bem, 1981c) in Table 13 along with test-retest reliabilities in Table 14.

Table 13

Coefficient Alpha for the Femininity and Masculinity Score. Reproduced from Bem (1981c)

	Femininity		**Masculinity**	
	Females	Males	Females	Males

Original				
BSRI				
1973 Sample	.75	.78	.87	.86
1978 Sample	.78	.78	.86	.87
Short BSRI				
1973 Sample	.84	.87	.84	.85
1978 Sample	.84	.87	.86	.85

Table 14

Test-Retest Reliabilities for the Femininity and Masculinity Scores. Reproduced from Bem (1981c)

	Females	**Males**
Original BSRI		
Femininity	.82	.89
Masculinity	.94	.76
Short-BSRI		
Femininity	.85	.91
Masculinity	.91	.76

Table 13 highlights that the internal consistency of the BSRI is generally acceptable-good, and comparable coefficients have been achieved in more

recent studies employing the measure (e.g. Lee & Kashubeck-West, 2015; Kachel, Steffens, & Niedlich, 2016).

Twenge (1997) conducted a meta-analysis of studies using the BSRI on a population of American college students (as in the original sample) to identify any changes in domain scores that might reflect changes in cultural and societal trends, finding that women displayed highly significant increases in their masculinity scores (d = .80) between 1974 and 1994. Twenge (1997) contended that this coincided with women's increasing participation in the workplace and improved societal equality and females embodiment of associated ideals traditionally associated with masculinity. Donnelly and Twenge (2017) extended this meta-analysis using the same methodology as Twenge (1997) but to cover the period from 1974-2012, finding that women's overall masculinity increased across the period (d = .23), and between 1994-2012 women's overall femininity decreased (d = -.26). All other scores between 1994-2012 remained relatively constant. These meta-analyses suggest that concepts of traditional masculinity and femininity may have changed over the decades – at least within populations of American college students – and that the BSRI may no longer measure the same latent constructs as when it was created. Spence (1983) comments that rather than measuring global theoretical concepts of 'masculinity' and 'femininity', rather the BSRI (and PAQ) measure only an empirical group of traits that might be labelled 'dominance' and 'nurturance/warmth'.

Present Factorial Analysis

Despite the criticism levelled at it, the BSRI has been used extensively over the past 50 years across a breadth of the psychological literature and to this day remains perhaps the most widely used measure of gender roles. Studies examining its factorial structure have mostly focussed on college student populations comparable to samples used in its original creation by Bem (1974), however its use has extended to wider populations with which it was not originally developed, e.g. older adults. The present research will examine the factorial structure of the BSRI-original and -short forms in a diverse online community sample to identify whether it remains fit for purpose in how it is most commonly used.

Method

Participants

Two-hundred-and-fifteen participants (62.3% female) completed the measure as part of a large study looking at the impact of attitudes on perceptions of stalking (See Chapter 4). Participants identified ethnicity as white (74.9%), Asian (10.2%), mixed (8.4%), black (2.3%) and 'other' (2.3%). Some participants did not indicate their ethnicity (1.8%). Participants ranged in age from 18-24 (36.3%), 25-34 (39.1%), 35-44 (12.6%), 45-54 (7.0%), 55-64 (2.8%) and over 65 (1.9%). One participant (0.5%) did not indicate their age. Highest educational attainment was GCSE's (3.7%), A-Level's (23.7%), Undergraduate (39.5%), Masters (26.0%), Doctorate (3.7%). Seven (3.3%) did not indicate their education level.

Procedure

Participants completed the BSRI-original form, consisting of 60 items (20 masculine, 20 feminine, 20 neutral) and were required to rate the degree to which certain adjectives (e.g. "independent") usually describe themselves on a scale from 1 to 7 (1 = never true, 7 = always true).

Results

Principle Component Analysis (PCA) was utilised on both the original- and short-forms using an orthogonal varimax rotation. Neutral items were included along with 'masculine' and 'feminine'

Original-Form

Item-loadings for the BSRI-original resulted in the generation of 16 components with an eigenvalue greater than 1, however three components accounted for 33% of the cumulative variance and had several item loadings greater than .5 (See Table 15). Component 1 includes 13 of the original 20 masculine items. Component 2 includes 10 of the original 20 feminine items, as well as 4 neutral items ("friendly", "helpful", "sincere", "tactful"). Component 3 includes 6 of the original neutral items, as well as 3 of the original masculine items ("makes decisions easily", "athletic", "competitive"), and 5 of the original feminine items ("cheerful", "warm", "affectionate", "tender", "flatterable"). Several items on component 3 also loaded on Components 1 and 2.

Table 15

BSRI-Original Item Loadings using an Orthogonal Varimax Solution

Trait	**Component**		
	1	2	3
Acts as a leader	.779		
Has leadership abilities	.756		
Strong personality	.735		
Assertive	.653		
Dominant	.633		
Willing to take a stand	.632		
Defends own beliefs	.603		
Aggressive	.540		
Forceful	.516		
Makes decisions easily	.400		.354
Sensitive to the needs of others		.793	
Sympathetic		.757	
Compassionate		.757	
Understanding		.722	
Eager to soothe hurt feelings		.710	
Gentle		.530	
Helpful		.419	.310
Cheerful			.737

Likable			.707
Happy			.667
Friendly		.395	.609
Warm		.539	.584
Adaptable			.499
Affectionate		.447	.455
Tender		.409	.450
Moody			-.322
Sincere		.387	
Loves Children		.334	
Shy	-.314		
Soft-spoken	-.346		
Tactful		.353	
Willing to take risks	.326		
Athletic			.374
Competitive	.314		
Flatterable			.325
Ambitious	.306		.318

Short-Form

Item-loadings for the BSRI-short form resulted in the generation of 7 components with an eigenvalue greater than 1, however two components accounted for over 34% of the cumulative variance and had several item loadings greater than .5 (See Table 16). Component 1 retained all of the original

10 masculine items as well as 1 neutral item ("adaptable"). Component 2 contained 9 of the original 10 feminine items except for "loves children".

Table 16

BSRI-Short-Form Item Loadings using an Orthogonal Varimax Solution

Trait	**Component**	
	1	2
Strong personality	.794	
Assertive	.735	
Dominant	.713	
Willing to take a stand	.697	
Has leadership abilities	.659	
Defends own beliefs	.629	
Forceful	.597	
Willing to take risks	.560	
Aggressive	.533	
Adaptable	.420	
Independent	.343	
Compassionate		.802
Sensitive to the needs of others		.783
Sympathetic		.769

Understanding	.713
Eager to soothe hurt feelings	.684
Warm	.641
Affectionate	.529
Gentle	.531
Tender	.470

The results of these two PCA's are broadly in line with the literature critical of the BSRI. In the original-form the two factors accounting for the highest variance could be accounted for by the factors - masculinity and femininity - for approximately half of the original 20 traits proposed by Bem (1974). Several traits originally designated as masculine or feminine, were now perceived to be neutral and some neutral traits now clustered more in the feminine component. There was a considerable number of traits that did not cluster well on a two-factor model, which replicates the findings of Choi and Fuqua (2003) who suggested that the original construction of the measure was not well operationalised.

Principle Component Analysis of the short-form yielded a much better factorial structure – with the exclusion of one-trait from the feminine dimension – and replicates earlier work suggesting that it may capture a 'purer' form of masculinity and femininity (Bem, 1971).

Discussion

The BSRI has received a wealth of criticism regarding its construction and structure. Much of this is justified and to some extent acknowledged by its author who revised the scoring system and the factor structure in response. Scoring by way of a median split creates an unjustifiable amount of error, which is acknowledged by Bem (1981c) and whilst Bem (1977) briefly acknowledges that some research might want to treat the scales of continuous, this comment does not appear to manifest in the BSRI manual nor in her own body of research. Such a level of unavoidable error attributed to grouping by median split does not seem logical when working with complex psychological data and the BSRI has been applied by some authors using the raw continuous scales (e.g. Foels & Pappas, 2004; Tacikowski, Fust, & Ehrsson, 2020; Snellman et al., 2009). Indeed in advocating for the non-binary nature of gender-role identity, and the inclusion of categories outside of a binary 'masculine' and 'feminine', Bem does her Gender Schema Theory a disservice by then crudely grouping identities into four categories.

There have been mixed attempts at replicating the original items of the BSRI, most of which were attempted in the decades after the inventory's development (with little recent interest), and it is possible that the original items are no longer fit for purpose in differentiating differences between masculinity and femininity. Several researchers have levelled criticism at the factorial structure of the original BSRI and suggested a multi-factor rather than two-factor structure, and this has been replicated in the present research where only half of the original masculinity items successfully loaded on the same construct.

However, the BSRI-short form has produced a more valid and replicable factor structure than the original and has been replicated in the present research with a more diverse sample than that with which it was originally developed (e.g. US college students), suggesting that the short form at least retains a degree of ecological validity. Similarly, several cross-cultural studies and studies with more diverse populations have found valid and reliable factor structures, suggesting that the scale taps into some cultural notion of masculinity and femininity.

Exactly what the essence of the constructs 'masculinity' and 'femininity' are remains somewhat unclear. It has been suggested that measures of these constructs are in fact tapping into qualities of 'agency/instrumentality/dominance' and 'expressivity/communality/nurturance' respectively. Clearly, cultural shifts and changing roles of men and women will have had an impact on traditional cultural notions of masculinity and femininity and some extent of this appears to be captured in the meta-analysis reported by Donnelly and Twenge (2017) and the present research which shows a shift in some of the traits that make up each construct. For example, the loss of traditional masculine traits from masculinity and the inclusion of more masculine traits under femininity may reflect shifting cultural perceptions of what constitutes the latent constructs. Bem's assertion that "virtually any sample of American adults would be qualified" (Bem, 1979, p. 1048) to judge cultural definitions of masculinity and femininity seems rather naïve when considering such a massive country composed of wide ethnic, religious and geographic diversity.

Future research is needed to re-establish what is meant by the terms 'masculinity' and 'femininity' and whether they remain fit for purpose. In modern society, an increasing number of people are rejecting traditional binary identities and so linguistical links to traditional concepts may not capture sufficient breadth of individuals' experience of their gender. Perhaps the concepts 'agentic' and 'expressive' may suit this purpose better and enable wider comparison of human traits with which we all identify. Sandra Bem herself predicted the demise of her own concepts when she said, "to the extent that the androgynous message is absorbed by the culture, the concepts of femininity and masculinity will cease to have such content and the distinctions to which they refer will blur into invisibility" (Bem, 1979, p. 1053). The concept of androgyny and it's relation to enhanced cognitive and psychological flexibility (e.g. Reilly et al., 2016) continues to offer an explanation for why some individuals do not behave consistently according to their biological sex and was used in Chapter 4 in relation to perceptions of stalking.

Conclusion

Throughout several decades of research – with the exception of the PAQ – there has been a paucity of other scales attempting to measure constructs of masculinity or femininity and the BSRI has dominated the literature. Despite its criticism, the BSRI remains widely used in a variety of psychological research. Whilst it is clearly imperfect and in need of some revision, the short form at least, offers continued utility in differentiating traits held by individuals which are typically associated with traditional notions of 'masculinity' and 'femininity'. Whether those terms remain relevant today is uncertain, however in the absence

of other scales that offer a non-binary measurement of these concepts, the BSRI will likely continue to be used. Future research that does so would be advised to at the minimum include additional description and context to the underlying concepts (e.g. agentic/expressive), rather than relying on the readers assumed understanding of masculinity and femininity.

Chapter Six: Discussion

Thesis Aims

There is considerable conceptual overlap between Social Dominance Theory and theories of sexual aggression, including the Confluence Mediational Model and coercive control theory. The central tenet of this thesis is that within patriarchal societies, individuals within hierarchy enhancing institutions such as the criminal justice system may legitimise or fail to recognise the sexually aggressive behaviours of men within those societies, thereby leading to poor outcomes for victims. This thesis examines how SDO relates to perceptions of sexual aggression by exploring the following questions:

1. Does an orientation towards social dominance affect how individuals perceive sexual aggression and coercive controlling behaviours and predispose one to viewing such behaviours as justified or acceptable?
2. Does an orientation towards social dominance predispose one to the perpetration of such behaviours?
3. What is the role of socialisation to traditional gender-role identities on how social dominance relates to perceptions of ex-partner stalking?

This thesis uses various mediums to explore these questions. Chapter 2 synthesises the extant literature base that related Social Dominance Orientation (SDO) to attitudes supportive of violence towards women (ASVAW). Chapter 3 presents a single case study design to explore how SDO and Hostile Masculinity (HM) present in a man convicted of sexual offences against women and currently undergoing community treatment. Chapter 4 presents an empirical research study looking at how SDO relates to perceptions of stalking in both men and

women, and the moderating role of gender-role identity. Chapter 5 explores the concept of traditional gender-role identity further in the presentation of a psychometric critique of the Bem Sex Role Inventory (BSRI) (Bem, 1974), a widely used measure of gender socialisation and gender-role identity.

Summary of Findings

Chapter 2

Chapter 2 presents a systematic review and meta-analysis that summarises the relationship between SDO and ASVAW. Previous meta-analyses have established how SDO relates to hostile sexism (e.g. Sibley et al., 2007), however the present meta-analysis is the first to synthesis findings of how SDO relates to other attitudes supportive of violence towards women, including behavioural perpetration. The review also explores the moderating role of factors including violence type, sample type, country of study, language of study and publication status. Secondary risk factors related to sexual aggression are also explored where included. The primary research questions were:

1. How do men's scores on SDO relate to attitudes supportive of violence against women?
2. What is the relationship of secondary risk factors, e.g. personality variables, adherence to gender role stereotypes, sexual fantasy, pornography use?

Secondary analyses of the relationship between SDO and HS were also included in order to extend result from previous meta-analyses.

A total of k = 17 studies met the eligibility criteria for inclusion, consisting of k = 21 independent samples. The main form of ASVAW measured was Myth Acceptance (k = 14), followed by Coercive Tactics (k = 3) and Harassment Perpetration (k = 2). Two studies were excluded from the meta-analysis based on low study quality. Most studies were conducted with student (k = 10) and online (k = 7) samples and were conducted in either The United States (k = 9) or Europe (k = 8). There was an overall significant moderate effect size ($\overline{\rho}$ = .48) between SDO and ASVAW, which was moderated by ASVAW type with myth acceptance producing moderate-large correlations ($\overline{\rho}$ = .55) within a homogenous sample. Sample type and country of study did not moderate the relationship. Similarly moderate-large effect sizes were found for the relationship of HS with ASVAW ($\overline{\rho}$ = .53), and between SDO and HS ($\overline{\rho}$ = .56). A structural equation model with HS mediating the relationship between SDO and ASVAW did not produce a well-fitted model. Dark Triad personality traits have moderate-strong correlations with all primary outcomes. Discussion highlights the ubiquitous relationship between SDO and myth acceptance across sample types and country (US and Europe) which one would expect within societies where men have greater access to resources than women. This relationship is less evident when considering coercive tactics and harassment perpetration, although study numbers were low. Strong effects sizes for HS with ASVAW is predicted by the CMM, although HS did not mediate the relationships between SDO and ASVAW. These findings have theoretical implications in highlighting the overlap between the SDT and CMM models and whilst SDO appears to relate to

one's *perceptions* of sexual aggression, through myth acceptance, there is less evidence to link SDO to the perpetration of sexual aggression. There are applied implications for how victims of violence are recognised and responded to within the criminal justice system. This has particular resonance at a time when agents of criminal justice – the police – find themselves under scrutiny for their treatment of women both within and without of the justice system.

Chapter 3

Chapter 3 presents an empirical case study of a man, Mr A, undergoing community treatment for sexual offending. Within the context of the CMM, Mr A's background and history places him at high risk of sexual offending, and his experiences of gang involvement and a long custodial sentence means one would expect high levels of SDO. Mr A's SDO and Hostile Masculinity (HM) was measured over a 12–18-month period, finding that throughout treatment, his SDO was comparative to that expected of a community sample of men, and that it remained stable across time-points. Hostile Masculinity however, decreased across the same period, suggesting that it was successfully targeted through treatment. Discussion highlights the relative stability of SDO and alludes to separate processes between SDO and HM. Whilst SDO may relate to attitudes supportive of violence towards women, it appears insufficient in predicting whether one will behave aggressively – a dimension better explained by hostile masculinity.

Chapter 4

Chapter 4 presents an empirical study which examines how SDO relates to perceptions of partner stalking, and the moderating role of gender-role identity. Partner stalking can be viewed as a form of coercive control and within patriarchal societies where men have disproportionate power and access to resources over women, stalking behaviours may be reinforced or minimised by cultural and societal norms. Stalking is often viewed through the lens of heteronormative courtship and so gender-role identity was hypothesised to moderate this relationship. The hypotheses of this research were:

H1: Men will score higher on SDO than women.

H2: Masculinity will predict higher SDO in men and femininity will predict lower SDO in women.

H3: The relationship between SDO and Perceptions that Mitigate Stalking (PMS) will be moderated by gender-role identity.

a. In men, masculinity will increase PMS scores.
b. In women, femininity will decrease PMS scores.

H4: Scores on PMS will be higher for both sexes in the atypical female-male scenario compared to the prototypical male-female stalking scenario.

H5: There will be a negative correlation between PMS scores and participants perceptions of intended distress.

The findings indicated that H1, H4 and H5 are confirmed. H2 is only partially supported as SDO was positively related to masculinity but not femininity. and H3 is not supported. In this study, sex did not relate to gender-role identity and consequently there was no moderating effect of gender-role identity on perceptions of stalking. PMS was uniquely predicted by being male, high SDO, and high femininity. The lack of expected results regarding gender-role identity likely relates to the lack of observed scores on masculinity and femininity between sexes, possibly because of the measure used (BSRI), or as a result of shifting attitudes towards gender norms. Both masculinity and femininity separately related to PMS which possibly indicates that a tendency to be 'sex-typed' predicts greater adherence to heteronormative scripts, resulting in greater PMS. There was an unexpected confound between sexual orientation and social dominance such that heterosexuality was greatly related to SDO and perceptions that mitigate stalking, which would benefit from exploration in future research. This research has implications for criminal justice systems – which are overwhelmingly male dominated and considered to be hierarchy-enhancing institutions – and how they perceive victims of stalking. That female perpetrated stalking is perceived to be less serious also has implications for how male victims access justice.

Chapter 5

Chapter 5 presents a psychometric critique of the Bem Role Sex Inventory (BSRI) (Bem, 1974), which is used in the primary study in Chapter 4. This chapter highlights the criticism that has been levelled at the inventory since its inception, mostly regarding its construct validity and a factor structure that

appears to be multifactorial. Consensus within the literature is that the BSRI-original has several validity problems which are of concern, whilst the BSRI-short form is much more robust and tends to yield valid and reliable factor structures for the dimensions of masculinity and femininity. The present chapter factor analysed the BSRI-original and -short form using the dataset presented in Chapter 4 (N = 215), the results of which were consistent with that previously found in the literature. However, consideration is given to the lack of differentiation between male and female participants on scores of masculinity and femininity which raises another query regarding whether these concepts still reflect modern conceptualisations of gender-identities in the same way in which the scale was operationalised 50 years prior.

Theoretical and Applied Implications

Social Dominance Orientation and Sexual Aggression.

The SDT literature highlights how high SDO individuals use hostility and aggression towards outgroups in order to maintain dominance and secure resources which maintain their position in the social hierarchy (e.g. Costello & Hodson, 2011; Gordon, 2022; Mayeux, 2014) Within the context of sexual aggression Chapter 2 highlights how high SDO relates to an increased propensity to endorse myths about sexual aggression, although there was less conclusive evidence that this relates to the perpetration of sexual aggression, e.g. through using coercive tactics to obtain sex or in perpetrating sexual harassment. Social Dominance Orientation may set the scene for sexual aggression when an individual's predisposition towards cultural messages of gender inequality

combines with aspects of hostile masculinity (HM), and impersonal sex constelaltions. Whilst SDO within certain contexts may increase the risk of holding sexist attitudes or of perpetrating myths about sexual violence it does not appear sufficient alone in predicting violence. This is supported by Chapter 3 in which Mr A's SDO remained stable and relatively low, whilst HM scores decreased over the course of treatment, along with risk recidivism. If SDO was strongly related to *perpetration* of sexual aggression, then one would expect this to also be impacted by treatment. The stability of Mr A's SDO score highlights the contextual nature of SDO. Based on Mr A's history of dominance over both women and men, one would predict his SDO to be high, yet his relatively low score as measured within a community context may reflect his self-perception of where he is now positioned within the social hierarchy. Within hierarchy-enhancing contexts, one would expect men to exhibit high social dominance which may affect how they perceive sexual aggression and coercive controlling behaviours, by for example viewing it as justified or acceptable. For example, hyper masculinised policing environments where misogynistic jokes are the norm (e.g. Casey, 2023) may create a culture where the actual perpetration of sexual violence is at best minimised or at worst condoned.

Victims of Sexual Violence

Chapter 2 highlights the extant literature showing that high SDO in men may impact one's perception of violence against women, such that one may be more likely to endorse myths about violence, or less likely to recognise the severity of potentially violent and distressing behaviours. These findings were further supported by the empirical study in Chapter 4 which found high SDO related to

one's perceptions that mitigate stalking behaviours in both men and women, although high SDO men were the most likely to mitigate stalking. These findings are in line with SDT such that those in the more dominant hierarchical position are motivated to maintain the status quo and may normalise ex-partner stalking within the context of heteronormative courtship. Individuals within hierarchy-enhancing institutions such as the police may therefore overlook potentially harmful behaviours that might constitute stalking, and so the risk of ex-partner violence cannot be mitigated. Similarly, victims may feel less able to report concerning behaviours for fear of being disbelieved or blamed for the behaviour. Whilst the research in Chapter 4 was conducted using a community sample, Chapter 2 highlighted how the relationship between SDO and attitudes supportive of violence against women is significant across several sample types and across country, demonstrating the robustness of this phenomenon. These findings have significant implications for how victims of sexual aggression navigate criminal justice systems (CJS), which are typically male dominated and 'hierarchy-enhancing'. Despite recent progress to increase diversity and recruitment of women within the CJS, efforts may be thwarted by the dominant discourse that maintains prejudice towards outgroups (e.g. Loftus, 2008). Women that are recruited into these positions may themselves score higher on SDO which motivates them toward seeking such positions, or increase the likelihood of being socialised towards the dominant ideology (Dambrun et al. 2010). Those that do not adequately socialise may choose to leave, which is reflected in the much higher attrition rate of female Metropolitan police officers (36%) compared to their male counterparts (10%). The Baroness Casey report into the standards and behaviour of the Metropolitan Police found that female

officers experienced day-to-day sexism and misogyny and in some cases direct sexual harassment or assault (Casey, 2023).

The Baroness Casey report further found that there was an endemic behaviour of disbelieving victims and of unchallenged prejudicial assumptions and rape myths that often went unchallenged within the organisation (Casey, 2023). Female victims therefore may have less access to justice within the CJS and may be less motivated to report sexual violence for fear of "institutional terror" (Sidanius & Pratto, 1993, p. 194) in the form of victim blaming and re-traumatisation.

There are also implications for male victims of female stalking perpetration. The findings of Chapter 4 support previous research that female perpetrated stalking behaviour is more likely to be trivialised (Gavin & Scott, 2016). Coupled with the finding that high SDO males were the most likely to mitigate stalking suggests that male victims in the CJS may be at the most increased risk of prejudice within the system. Within the lens of SDT, powerful men in the form of police, barristers and judges may be more likely to view male victims as weaker and more subordinate, particularly when victim to females – a group already perceived to be lower in social status.

The findings of Chapter 2 and Chapter 4 also have implications for how sexual violence victims are viewed not just within criminal justice systems but within wider society. Awareness of the underreporting of sexual violence towards females was made particularly salient in the advent of the #MeToo movement which uncovered widespread sexual misconduct by powerful men in the media

industry. Tuerkheimer (2019) highlights that this was achieved because victims of sexual violence looked to new systems of justice – such as *the court of public opinion* – when traditional justice systems failed them. Whilst the previous few years have seen progress in this domain, this has not been without backlash, perhaps seen most recently in the multimillion-dollar defamation trial between actors Johnny Depp and Amber Heard in which – despite a judge previously ruling that 12 of the 14 alleged incidents of domestic violence perpetrated by Mr Depp were likely to have occurred – social media support appears overwhelmingly skewed against Ms Heard. This is predicted by Sidanius and Pratto (1993) when they write that "when low-status persons do decide to risk the negative consequences of defiance … to change the social order, they may be effective. However after a relatively short period of "quasi-egalitarianism," the social order is bound to return to the hierarchical, stable equilibrium once again" (p. 210).

Gender-role identity

It is perhaps unsurprising that the research in Chapter 4 found masculinity related strongly to SDO, especially when previous researchers have conceptualised the dimension to measure *dominance* (e.g. Dean & Malamuth, 1997), however gender-role identity did not moderate SDO and PMS as originally predicted. Chapter 5 highlights some of the limitations of the BSRI and critically that the scales masculinity and femininity may not capture modern conceptualisations of the constructs. In recent years, Western societies have seen an increase in gender-expression and a greater awareness of individuals who do not fit the traditional binary understanding of masculinity and femininity.

Bem (1974) herself predicted the demise of such constructs as culture moves towards a more *androgynous* understanding of gender-role identity and it is likely that this is reflected in the results of Chapter 4. That masculinity and femininity were both related to PMS suggests that aligning with a traditional gender-role identity may mean one also has greater adherence to heteronormative dating scripts and thus views partner stalking within this lens. Indeed, androgyny has been related to increased psychological and cognitive flexibility (Bem, 1977) and so individuals who do *not* conform to binary gender-identities may be better equipped to perceive potentially harmful behaviours which are outside of their *own* sexual and dating scripts. Whilst only limited conclusions can be drawn from the results, Chapter 4 also proposes that non-heterosexuals have lower levels of SDO and PMS and so similarly they may be less likely to be socialised towards accepting the patriarchal, heteronormative status quo, and thus more likely to perceive it as illegitimate and are motivated to attenuate it.

Limitations and Future research

The research presented in this thesis is not without limitations, although where possible efforts have been made to reduce these. The findings of Chapter 2 are limited particularly by the Western centricity of the samples within individual studies. Whilst efforts were made to make this review as inclusive as possible – by searching non-English language databases and keeping exclusion criteria to a minimum – all the included studies were in either Europe or The United States which likely reflects the state of the literature. Future research would undoubtedly benefit from studies examining SDO and ASVAW within other

continents, and in countries with less stable economies. Arguably, women in Western societies have greater freedoms than some Eastern countries and so cross-cultural comparisons would be invaluable to further elucidate the relationship between SDO and ASVAW. Further, whilst Chapter 2 and Chapter 4 undoubtedly have implications for how victims are treated within the criminal justice system – given the ubiquitous nature of the relationship between SDO and ASVAW – it is important to highlight that none of the samples involved CJS agents specifically, e.g. police officers, barristers, or judges. The literature would benefit from future research that compares SDO and perceptions or perpetration of sexual violence between CJS agents and other professions.

Another limitation is that the studies in Chapter 2 and Chapter 4 were all cross-sectional, meaning that the longitudinal nature of the constructs cannot be evaluated. These results would be further bolstered by longitudinal data that might highlight whether changing contexts or cultural and societal shifts impact on SDO and ASVAW. This would be especially interesting to explore how advances in equality (e.g. sexual assault victims' access to justice) might change over time, and whether any progress towards equality returns to a hierarchical, stable equilibrium, as predicted by SDT.

Chapter 4 is also limited by the lack of differentiation on the BSRI between men and women, and this is discussed in detail in Chapter 5. The field of gender studies would benefit from the development of modernised instruments that measure aspects of gender roles that might better differentiate men and women. It is true that modern gender-roles are changing and so perhaps modern conceptualisations of what it means to be a man or woman are shifting.

Discussion of these issues is beyond the scope of this thesis but there are wider implications for how the academic literature differentiates and measures psychological constructs associated with men and women.

Socially desirable responding was also evident in Chapters 3 and 4, which may have attenuated some of the responding. Social Dominance Orientation – at face value – may not appear desirable, and so it is possible that many participants scored themselves lower than what might be considered their true value. However, despite this, several significant results were observed, and so perhaps the extent to which SDO prejudices one's perceptions is even more significant that what is observed in the presented studies.

Conclusion

The present thesis answers some key questions on the relationship between SDO and perceptions of violence towards women. Specifically, there is evidence to suggest that high SDO may affect one's perceptions of harmful sexual behaviours, such as by minimising or actively endorsing the behaviour. As expected by SDT, this relationship is strongest in men, who hold more power and control over women, and so may stand to benefit from holding attitudes that perpetuate this power and control. There is less conclusive evidence in this thesis for whether SDO will affect whether a man will behave violently towards a woman, although SDT would argue that minimisation or endorsement are sufficient for creating an environment in which behaviours are legitimised through hierarchy enhancing institutions that maintain the power imbalance between men and women. When hierarchy-enhancing institutions maintain a

status quo through the perspectives of individuals within that organisation then institutional change appears distant and we may continue to see poor outcomes for victims of sexual violence. Further research is needed to explore how socialisation towards traditional gender roles might contribute to the maintenance of the status quo. There is some limited evidence that individuals who ascribe less to the patriarchal, heteronormative worldview have a more flexible perception and may have greater scope to challenge these norms. If we wish to see better justice for victims of sexual violence, there is likely something that society can learn by listening to the voices that are doggedly challenging the status quo.

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Book 2:

Book of Appendices

Appendix A: Sample PsycInfo database search strategy via Ovid and ProQuest search strategy

Search: "Social Dominance Orientation" AND "violence against women"

Sample ProQuest search (no thesaurus)

Search concepts	Social Dominance Orientation	Violence against women
Search terms	"social dominance orient*".mp." OR "social dominance theor*.mp." OR "((SDO or SDT) and social).mp." OR "(Social dominan*.mp. and exp Dominance Hierarchy/)"	"exp Domestic violence/" OR "exp intimate partner violence/" OR "exp battered females/" OR "exp sex offenses/" OR "exp stalking/" OR "exp rape/" OR "sexual harrassment/" OR "((intimate partner or domestic* or psycholog* or physical* or verbal* or economic* or sex* or control*) adj2 (violen* or abus* or aggress*).mp." OR "gender based violen*.mp." OR (GBV and gender).mp." OR "(sex* adj3 (assault* or harass*)).mp." OR "(gender adj3 aggress*).mp." OR "((violen* adj wom?n) or VAW?).mp." OR "(rape* or wife abus* or stalk*).mp." OR "dating violen*.mp." OR "criminal harassment.mp." OR "(dowry adj murder*).mp." OR "(rape myth accept* or sexis* or gender role stereotyp*).mp." OR

		“(attitude* adj wom?n).mp.

NOFT((intimate partner or domestic* OR psycholog* OR physical* OR verbal* OR economic* OR sex* OR control*) PRE2 (violen* OR abus* OR aggress*) OR "gender based violen*” OR (GBV AND gender) OR (sex* PRE3 (assault* OR harass*)) OR (gender PRE3 aggress*) OR ((violen* PRE wom?n) OR VAW?) OR (rape* OR wife abus* OR stalk*) OR “dating violen*” OR “criminal harassment” OR (dowry PRE murder*) OR ("rape myth accept*" OR sexis* OR "gender role stereotyp*") OR ("attitude* PRE wom?n")) AND NOFT(social dominance orient* OR social dominance theor* OR ((SDO or SDT) and social))

Appendix B: Study Characteristics, Cohorts and Statistics

Study	Year	N	Age	Age range	Setting/Sample	N	Measure X	Measure Y	*r*	α (X)	α (Y)
Amayreh	2019	290	20.8	NR	Students	290	SDO	SSS	0.18	0.93	0.85
						290	SDO	HS	0.38	0.93	0.86
						290	HS	SSS	0.18	0.86	0.85
Binkley	2016	92	NR	18-24	Student	85	SDO	IRMA	0.58	0.94	0.92
Camas & Mese	2016	149	36.3*	18-68	Representative postal distribution	149	SDO	AMMSA	0.39	0.80	0.89
						149	SDO	HS	0.31	0.80	0.84
						149	HS	AMMSA	0.62	0.84	0.89
Canto et al.	2020	90	21.6*	18-33	Students	90	SDO	AMIVAW	0.44	0.85	0.91
						90	SDO	HS	0.50	0.85	0.83
						90	HS	AMIVAW	0.75	0.83	0.91

Fields	2012	86	21.6	18-53	Student	NR	SDO	CTS	NR	NR	NR
Gerger et al.	2007a	83	29.5*	14-99	Online	83	SDO	AMMSA	0.43	0.86	0.92
						83	SDO	IRMA	0.42	0.86	NR
Gerger et al.	2007b	148	29.5*	14-99	Online	148	SDO	AMMSA	0.53	0.91	0.92
						148	SDO	IRMA	0.52	0.91	NR
Hantzi et al	2015a	83	33.5	18-65	Students (+ Family)	83	SDO	AMMSA	0.37	0.87	0.93
						83	SDO	IRMA	0.43	0.87	0.97
						83	SDO	HS	0.36	0.87	0.90
						83	HS	AMMSA	0.77	0.90	0.93
						83	HS	IRMA	0.71	0.90	0.97
Hantzi et al	2015b	65	38.1	18-72	Students (+ Family)	65	SDO	AMMSA	0.05	0.87	0.93
						65	SDO	IRMA	0.34	0.87	0.97
						65	SDO	HS	0.08	0.87	0.90
						65	HS	AMMSA	0.78	0.90	0.93

						65	HS	IRMA	0.38	0.90	0.97
Hockett et al.	2009	52	22.2	NR	Students	52	SDO	RMA	0.46	0.71	0.79
						52	SDO	ARV	0.38	0.71	0.76
						52	SDO	HS	0.25	0.71	0.63
						52	HS	RMA	0.53	0.63	0.79
						52	HS	ARV	0.45	0.63	0.76
Jankowski et al	2011	38	22.2*	18-54	Students	38	SDO	RMA	0.31	0.88	0.80
						38	SDO	DVMAS	0.27	0.88	0.87
Jones et al	2014a	261	30.0	NR	Online	261	SDO	TOSS	0.33	0.85	0.77
						261	SDO	TOSS	0.32	0.85	0.82
						261	SDO	TOSS	0.28	0.85	0.89
						261	SDO	SRP-SF	0.36	0.85	0.90
						261	SDO	Mach-IV	0.19	0.85	0.75
						261	SDO	Mach-IV	0.32	0.85	0.81

						261	SRP-SF	TOSS	0.57	0.90	0.77
						261	SRP-SF	TOSS	0.56	0.90	0.82
						261	SRP-SF	TOSS	0.56	0.90	0.89
						261	NPI-16	TOSS	0.18	0.75	0.77
						261	NPI-16	TOSS	0.21	0.75	0.82
						261	NPI-16	TOSS	0.17	0.75	0.89
						261	Mach-IV	TOSS	0.14	0.81	0.77
						261	Mach-IV	TOSS	0.16	0.81	0.82
						261	Mach-IV	TOSS	0.15	0.81	0.89
Jones et al	2014b	186	30.6	NR	Online	186	SDO	TOSS	0.44	0.83	0.85
						186	SDO	TOSS	0.42	0.83	0.89
						186	SDO	TOSS	0.43	0.83	0.87
						186	SDO	TOSS	0.29	0.83	0.73
						186	SDO	SRP-SF	0.53	0.83	0.82
						186	SDO	NPI-16	0.24	0.83	0.68
						186	SRP-SF	TOSS	0.58	0.82	0.85

						186	SRP-SF	TOSS	0.56	0.82	0.89
						186	SRP-SF	TOSS	0.58	0.82	0.87
						186	NPI-16	TOSS	0.37	0.68	0.85
						186	NPI-16	TOSS	0.36	0.68	0.89
						186	NPI-16	TOSS	0.34	0.68	0.87
						186	Mach-IV	TOSS	0.19	0.73	0.85
						186	Mach-IV	TOSS	0.22	0.73	0.89
						186	Mach-IV	TOSS	0.22	0.73	0.87
Lys et al.	2021	120	21.2	NR	Students	120	SDO	IRMA	0.42	0.87	0.88
						120	SDO	HS		0.93	0.88
						120	HS	IRMA	0.68	0.93	0.88
Pratto et al.	1994a	71	NR	17-35	Students	71	SDO	RMA	0.46	0.81	0.84
Pratto et al.	1994b	34	NR	17-35	Students	34	SDO	RMA	0.40	0.84	0.75
Salmen et al.	2020	244	36.8	19-73	Online	244	SDO	IRMA	0.55	0.90	0.96
						244	SDO	HS	0.60	0.90	0.93

						244	HS	IRMA	0.66	0.93	0.96
Sussenbach	2011	156	54.7	16-90	Representative telephone interview	156	SDO	AMMSA	0.41	0.61	0.79
						156	SDO	HS	0.33	0.61	0.88
						156	HS	AMMSA	0.38	0.88	0.79
Szekeres et al.	2020	NR	NR	NR	Online	NR	SDO	DissSA	0.31	0.89	0.67
Tang, Reer & Quandt	2019	574	26.8*	14-39	Online Gamers	574	SDO	HarrassPerp	0.34	0.62	0.95
						574	SDO	Psy (NNI)	0.42	0.62	0.79
						574	SDO	Nar (NNI)	0.31	0.62	0.85
						574	SDO	Mach (NNI)	0.31	0.62	0.84
						574	SDO	HS	0.48	0.62	0.87
						574	Psy (NNI)	HarrassPerp	0.56	0.79	0.95

						574	Psy (NNI)	HS	0.45	0.79	0.87
						574	Nar (NNI)	HarrassPerp	0.42	0.85	0.95
						574	Nar (NNI)	HS	0.35	0.85	0.87
						574	Mach (NNI)	HarrassPerp	0.56	0.84	0.95
						574	Mach (NNI)	HS	0.39	0.84	0.87
						574	HS	HarrassPerp	0.43	0.87	0.95
Tang & Fox	2016	425	23.4	18-55	Online Gamers	425	SDO	HarrassPerp	0.40	0.91	0.87
					Students	425	SDO	HS	0.62	0.91	0.91
						425	SDO	HarrassPerp	0.36	0.91	0.87

*Mean age for male sample unavailable. Mean age calculated from male and female samples.

Appendix C: Stalking Vignettes – Taken from Scott, Duff, Sheridan and Rajakaruna (2018)

Female Perpetrator/Male target

"James first met Sarah when he started working in the same estate agents office as her. A romance developed and subsequently they dated for six months. James ended the relationship because they wanted different things. During the two months that followed, Sarah sent James more than 30 text messages asking why he was no longer interested in her. Sarah also approached James several times on his way to work and telephoned him at home. James asked Sarah not to call him, but she still called frequently. When James screened his calls Sarah left messages expressing her interest in resuming a relationship. Most recently, Sarah approached James while he was walking his dog in the local park. Sarah asked James to change his mind on the grounds that they could still be good together."

Male Perpetrator/Female Target

"Sarah first met James when she started working in the same estate agents office as him. A romance developed and subsequently they dated for six months. Sarah ended the relationship because they wanted different things. During the two months that followed, James sent Sarah more than 30 text messages asking why she was no longer interested in him. James also approached Sarah several times on her way to work and telephoned her at home. Sarah asked James not

to call her, but he still called frequently. When Sarah screened her calls James left messages expressing his interest in resuming a relationship. Most recently, James approached Sarah while she was walking her dog in the local park. James asked Sarah to change her mind on the grounds that they could still be good together."

Appendix D – Primary Study Consent Form, Participant Information Sheet, and Debrief Form

FMHS Research Ethics Ref: 510-2003

Consent Information (First Page)

Thank you for your interest in taking part in this questionnaire/online survey. You have been invited to participate as you are aged between 18-65. Please read through this information before agreeing to participate by ticking the 'yes' box below.

This study is being done by Dr Simon Duff, Deputy Director of Forensic Programmes and Joseph Kavanagh, Trainee Forensic Psychologist from the University of Nottingham.

We are investigating how different people understand romantic relationships. Previous research has suggested that people's perceptions of romantic relationships differ depending on the type of person that they think they are.

You will be asked to provide some basic demographic information and to answer some questions about yourself. You will then be given some scenarios to read followed by some questions on the scenarios you have just read. It should take you about 20 minutes to complete. No background knowledge is required. The information you provide will help the researchers to understand more about different attitudes to romantic relationships. The information you provide will only be used by the researchers involved in this study and if you consent to it, it may also be used in future studies by the same researchers.

How will your data be used?

Your answers will be completely anonymous and we will use all reasonable endeavours to keep them confidential. Your participation in this study is entirely voluntary. You can withdraw at any point during the questionnaire for any reason, before submitting your answers by clicking the Exit button/closing the browser. The data will only be uploaded on completion of the questionnaire by clicking the SUBMIT button on the final page. After clicking submit Any anonymous research data that has already been collected and stored may be used in the final study analyses. To safeguard your rights, we will use the minimum personally identifiable information possible.

There is an opportunity to provide your email address on the demographics page for the purposes of being entered into a draw to receive a £50 Amazon gift card. All email addresses will be stored seperate to all other provided data in an encrypted file and will only be used for the purposes of the draw. Once the draw is completed all email addresses will be destroyed.

Your data will be stored on an encrypted webpage and within a password-protected file. It may also be used anonymously in academic publications. Your IP address will not be stored. We would like you to answer all questions as honestly and completely as possible however if there is a question you would not like to answer then there is a 'prefer not to say' option.

Who will have access to your data?

The University of Nottingham is the data controller for the purposes of the Data Protection. Your data will not be shared with any other third parties. The survey

platform host (Jisc Online) do not store any personal information (including IP address) but do require an email address in order to participate in the survey. As with any online related activity the risk of a breach is always possible. We will do everything possible to ensure your answers in this study will remain anonymous. We will minimize any risks by keeping all data anonymous and only identifiable with a unique participant identification number.
All research data and records will be stored for a minimum of 7 years after publication or public release of the work of the research. The results of the study may be published in scientific journals and presented at scientific conferences. The data will be reported anonymously, with any identifying information removed.

If you have any questions about this project, you may contact the Corresponding Researcher, Joseph Kavanagh (joseph.kavanagh@nottingham.ac.uk) or if you have any concerns about any aspect of this study please contact the Research Supervisor: Dr Simon Duff (simon.duff@nottingham.ac.uk). If you remain unhappy and wish to complain formally, you should then contact the FMHS Research Ethics Committee Administrator, c/o The University of Nottingham, Faculty PVC Office, E41, Medical School, Queen's Medical Centre Campus, Nottingham University Hospitals, Nottingham, NG7 2UH. E-mail: FMHS-ResearchEthics@nottingham.ac.uk

This study has been reviewed and given a favourable opinion by the University of Nottingham, Faculty of Medicine & Health Sciences Research Ethics Committee (Ref: 510-2003].

I have read and understood the above information and consent form, I confirm that I am 18 years old or older and by clicking the NEXT button to begin the online questionnaire, I indicate my willingness to voluntarily take part in the study.

NEXT – I consent to take part EXIT - I do not give consent

Thank you for participating!

Please, tick each box to continue:

- ○ I confirm that I have read and understood the information on the previous page
- ○ I am 18 years old and/or older
- ○ I understand that my participation is voluntary and I can end the study at any time and withdraw my data by clicking the EXIT button .
- ○ I understand that my answers will be anonymous.
- ○ I understand the overall anonymized data from this study may be used in the future for research (with research ethics approval) and teaching purposes.

  NEXT – to be taken to the survey.

Debrief Information (Final Page)

Thank you for taking part!

The study you have just finished was looking at the role of social dominance orientation, gender identification and attitudes towards stalking.

Social Dominance Theory suggests that social hierarchies and inequalities are endorsed to varying degrees between individuals through 'legitimising myths' such as sexism and gender role stereotypes.

Those with a high belief in group-based inequality support the strong against the weak, irrespective of their own group position. Men typically have a greater belief in group-inequality than women and it has been found that the strength of one's identification with their gender group moderated the relationship between gender and belief in group-based inequality. Belief in group-based inequality has been shown to predict numerous prejudiced attitudes including sexism, rape myth acceptance, and victim blaming.

These concepts are all linked to perceptions of stalking however the contribution of social dominance is not within the stalking literature. The stalking literature suggests that males endorse more stalking myths than females and that male perpetrators are perceived to be more dangerous than female perpetrators. Gender socialisation and sexual scripts of dating have been implicated in the differing attitudes towards stalking and participants are more likely to mitigate for 'gender appropriate' behaviour and penalise 'gender inappropriate' behaviour in studies.

This research aims to bridge the literature gap between beliefs in inequality and observed gender differences in stalking perceptions. It is expected that men will endorse perceptions that mitigate stalking to a greater extent than women

and that those with a stronger belief in group based inequality will have perceptions that mitigate stalking to a greater extent. Additionally, this effect will be moderated by the degree that people identify with their gender. For example, males with strong beliefs in *inequality* who identify as strongly masculine will have the strongest perceptions that mitigate stalking. Conversely, females with a strong belief in *equality* who identify as strongly feminine will have the weakest perceptions that mitigate stalking.

If you would like updates on the progress of this research or any further information then please email joseph.kavanagh@nottingham.ac.uk.

If provided, your email address will be entered randomly into a draw for a £50 Amazon voucher once all responses are received and you will be notified by the researcher named above.

If you feel that you have been affected by any of the information presented in this study then below are a list of services that can offer support.

National Stalking Helpline

0808 802 0300

The National Stalking Helpline is run by the Suzy Lamplugh Trust who offer support and advice to people who have experienced stalking or other forms of violence and aggression.

Victim Support

0808 168 9111

Victim Support offer support and advice to anyone who has been the victim of violence and crime.

Samaritans

116 123

Samaritans offer confidential, non-judgmental support to anyone in need of someone to talk to.

Thank you once again for your participation.

Appendix E: Primary Study Ethics Approval Letter

University of Nottingham
UK | CHINA | MALAYSIA

Faculty of Medicine & Health Sciences
Research Ethics Committee
Faculty Hub
Room E41, E Floor, Medical School
Queen's Medical Centre Campus
Nottingham University Hospitals
Nottingham, NG7 2UH
Email: FMHS-ResearchEthics@nottingham.ac.uk

12 May 2020

Mr Joseph Kavanagh
PhD Student, Forensic Psychology Top-up
c/o Dr Simon Duff
Director Stage II Forensic Training
Centre for Forensic & Family Psychology
University of Nottingham
B05, YANG Fujia Building, Jubilee Campus
Nottingham, NG8 1BB

Dear Mr Kavanagh

Ethics Reference No: 510-2003 **– please always quote**	
Study Title: Social Dominance Orientation, Gender Identification and Perceptions of Heterosexual Ex-Partner Stalking.	
Chief Investigator/Supervisor: Dr Simon Duff, Director Stage II Forensic Training, Centre for Forensic & Family Psychology, Psychiatry and Applied Psychology, School of Medicine.	
Lead Investigators/student: Joseph Kavanagh, PhD Student, Forensic Psychology Top-up	
Proposed Start Date: 01/05/2020	**Proposed End Date:** 30/11/2020

Thank you for submitting the above application and the following documents were received:

- FMHS REC Application form and supporting documents version 2.0: 08/03/2020

These have been reviewed and are satisfactory and the project has been given a favourable opinion.

A favourable opinion has been given on the understanding that:

1. The protocol agreed is followed and the Committee is informed of any changes using a notice of amendment form (please request a form).
2. The Chair is informed of any serious or unexpected event.
3. An End of Project Progress Report is completed and returned when the study has finished (Please request a form).

Yours sincerely

pp

Dr John Williams, Associate Professor in Anaesthesia and Pain Medicine
Chair, Faculty of Medicine & Health Sciences Research Ethics Committee

Appendix F: BSRI Copyright and Sample Items

To Whom It May Concern,

The above-named person has made a license purchase from Mind Garden, Inc. and has permission to administer the following copyrighted instrument up to that quantity purchased:

Bem Sex Role Inventory

The four sample items only from this instrument as specified below may be included in your thesis or dissertation. Any other use must receive prior written permission from Mind Garden. The entire instrument may not be included or reproduced at any time in any other published material. Please understand that disclosing more than we have authorized will compromise the integrity and value of the test.

Citation of the instrument must include the applicable copyright statement listed below.

Sample Items:
Love children
Defend my own beliefs
Conscientious
Unsystematic

Copyright © 1978-1994 by Consulting Psychologists Press, Inc. All rights reserved in all media. Published by Mind Garden, Inc. www.mindgarden.com

Sincerely,
Robert Most
Mind Garden, Inc.
www.mindgarden.com

For use by Joseph Kavanagh only. Received from Mind Garden, Inc. on September 17, 2020

Appendix G: SDO_7 Scale

Instructions: Show how much you favor or oppose each idea below by selecting a number from 1 to 7 on the scale below. You can work quickly; your first feeling is generally best.

1 – Strongly Oppose
2- Somewhat oppose
3 – Slightly Oppose
4 – Neutral
5 – Slightly Favour
6 – Somewhat Favour
7 – Strongly Favour

Pro-trait dominance:
1. Some groups of people must be kept in their place.
2. It's probably a good thing that certain groups are at the top and other groups are at the bottom.
3. An ideal society requires some groups to be on top and others to be on the bottom.
4. Some groups of people are simply inferior to other groups.

Con-trait dominance:
5. Groups at the bottom are just as deserving as groups at the top.
6. No one group should dominate in society.
7. Groups at the bottom should not have to stay in their place.
8. Group dominance is a poor principle.

Pro-trait anti-egalitarianism:
9. We should not push for group equality.
10. We shouldn't try to guarantee that every group has the same quality of life.
11. It is unjust to try to make groups equal.
12. Group equality should not be our primary goal.

Con-trait anti-egalitarianism:
13. We should work to give all groups an equal chance to succeed.
14. We should do what we can to equalize conditions for different groups.
15. No matter how much effort it takes, we ought to strive to ensure that all groups have the same chance in life.
16. Group equality should be our ideal.

Note: The con-trait items should be reverse-scored before computing a composite scale mean.

Appendix H: Balanced Inventory of Desirable Responding (BIDR-16)

Scale

1. I have not always been honest with myself.
2. I always know why I like things.
3. It's hard for me to shut off a disturbing thought.
4. I never regret my decisions.
5. I sometimes lose out on things because I can't make up my mind soon enough.
6. I am a completely rational person.
7. I am very confident of my judgments .
8. I have sometimes doubted my ability as a lover.
9. I sometimes tell lies if I have to.
10. I never cover up my mistakes.
11. There have been occasions when I have taken advantage of someone.
12. I sometimes try to get even rather than forgive and forget.
13. I have said something bad about a friend behind his/her back.
14. When I hear people talking privately, I avoid listening.
15. I never take things that don't belong to me.
16. I don't gossip about other people's business.

Scoring key:

1 – Not true
2
3
4 – Somewhat true
5
6
7 – Very true