Women’s Internalization and Rejection of Sexist Humour

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Abstract

Most research has examined men’s reactions to sexist humour, making it unclear how sexist (i.e., anti-female) humour impacts women. Accordingly, the purpose of Study 1 (N=225) was to investigate women’s proximal joke reactions, that is, ratings of amusement and inoffensiveness for sexist (aggressive or belittling) versus neutral (non-sexist) jokes, as well as to examine individual differences predicting these reactions. We found that women overall rated sexist jokes as less amusing and inoffensive than neutral jokes. Critically, however, women’s endorsement of greater hostile sexism predicted more favourable reactions to sexist (but not neutral) jokes; likewise, women higher in cavalier humour beliefs (i.e., the belief that “jokes are just jokes”) reacted more favourably to sexist (and neutral) jokes.

Unlike the case for men, little research has addressed the effects of sexist humour exposure among women. Therefore, the purpose of Study 2 (N=226) was to assess the experimental effects of sexist humour exposure among women. First, participants completed pre-test measures of hostile sexism, cavalier humour beliefs, and ingroup identification. After, women were randomly assigned to an aggressive joke condition (n=114) or a neutral joke condition (n=112). Subsequently, participants completed measures of joke amusement and inoffensiveness ratings, self-objectification, negative bias effects against women (i.e., prejudice against women, discrimination against women, and support for women’s rights), and marginalized outgroup favourability. Results revealed that aggressive (vs. neutral) joke exposure lowered joke amusement and inoffensiveness ratings; these effects were weaker among women higher in hostile sexism or cavalier humour beliefs, or lower in ingroup identification. Exposure to aggressive (vs. neutral) jokes also led to increased self-objectification. Moreover, aggressive (vs. neutral) joke exposure increased both anti-women prejudice (among women higher in
cavalier humour beliefs) and discrimination against women (among women higher in hostile sexism or cavalier humour beliefs). There were no effects of sexist joke exposure on women’s rights support or marginalized outgroup favourability. Implications are discussed.

**Keywords:** cavalier humour beliefs, discrimination, hostile sexism, joke amusement and inoffensiveness, self-objectification, sexist humour
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Women’s Internalization and Rejection of Sexist Humour

In 2005, American President Donald Trump was recorded in *Access Hollywood* tapes boasting about groping women and later dismissing his sexist communications as “locker-room talk.” However, referring to boasts of sexual assault as “locker-room talk” trivializes the day-to-day experiences of discrimination that women face. On average, college women report exposure to two sexist incidents per week, including experiences of gender role stereotyping and prejudice, demeaning comments and behaviours, and sexual objectification (Swim, Hyers, Cohen, & Ferguson, 2001). Western women are also paid less than men for doing comparable work (e.g., Davies, 2009; Peck, 2017; Spector, 2017) and are less likely to attain managerial and high-status employment positions (e.g., Armstrong & Armstrong, 1993), that is, to “break the glass ceiling” (Eagly & Carli, 2007). Worse, there is evidence that when women are granted positions of power, it often occurs when a company is already on a downward trajectory and seeking to blame marginalized group members (Haslam, Ryan, Kulich, Trojanowski, & Atkins, 2010). Further, the routine sexual objectification that is characteristic of Western culture encourages men to see young girls and women as sexual objects (Bartky, 1990; see Moradi & Huang, 2008), and likely helps to explains why young girls and women (relative to men) are more likely to be raped, sexually assaulted, and stalked (Mohler-Kuo, Dowdall, Koss, & Wechsler, 2004; Myhill & Allen, 2002; Tjaden & Thoennes, 2000). Clearly, sexism exists and has negative consequences for women.

**A Brief History of Sexism**

Understanding sexism and women’s contemporary position in society necessitates a brief analysis of women’s history. Patriarchy, a universal system whereby women are considered inferior to men (Bartky, 1990; Glick & Fiske, 1996), has emerged from interactions across
biological sex differences and sociocultural factors (Wood & Eagly, 2012). According to Wood and Eagly (2012), men’s and women’s current roles in society are rooted in physical differences that previously affected their performance of daily tasks. For instance, in prehistoric nomadic hunter-gatherer societies, men’s strength and larger body size were helpful for hunting animals. While men hunted, women stayed behind to protect their young and gather other sources of food. Although technological advancements have reduced the relevance of strength in meeting socioeconomic demands, a division of labour continues to exist in society. Women are still more likely than men to perform domestic and economic activities related to childcare (e.g., Crompton, 1999; Mackintosh, 1981), even when working outside of the home (Breen & Cooke, 2005; Lyonette & Crompton, 2015). Critically, individuals continue to maintain gender role divisions in society by observing men and women’s activities and forming corresponding gender-based stereotypes (Wood & Eagly, 2012). These gender stereotypes then guide the ways in which people treat men and women. For instance, people raise their children consistent with gender roles (e.g., raising girls to play with dolls, encouraging boys to play rough). Further, men and women internalize gender stereotypes as their own personal standards and then behave according to societal expectations (e.g., women doing the cooking and cleaning; Wood & Eagly, 2012). As a result, the division of labour based on sex persists.

When social groups act outside of their stereotypically-defined social roles, this fosters prejudice and discrimination against them with the goal of keeping them in their inferior positions (Eagly, Eaton, Rose, Riger, & McHugh, 2012; Glick & Fiske, 1996). For instance, perhaps due to the perceived incongruity between the “female gender” and leadership roles, only 6% of the highly paid executives of Fortune 500 companies are women (Eagly & Carli, 2007; “These are the Women CEOs…,” 2017). In addition, women occupy less than 20% of U.S.
Congressional seats (CAWP, 2018). Based on stereotypically-defined social roles, women are perceived less favourably than men when they pursue leadership positions and thus are less likely to attain high-status employment positions (Eagly & Karau, 2002). Accordingly, women’s inability to “break through the glass ceiling” is best understood in the discrepancy between gender roles and higher status positions in society, not in terms of inherent or biological differences.

**Contemporary Expressions of Sexism**

Despite the robust evidence for gender inequality outlined above, denials of sexism abound (e.g., Swim, Aikin, Hall, & Hunter, 1995). Of note, prejudice and discrimination can be blatant (traditional; hot, close, and direct) or subtle (modern; cool, distant, and indirect) (Pettigrew & Meertens, 1995). Overt prejudice and discrimination has declined over the years, with subtle or modern forms becoming especially frequent (e.g., Pearson, Dovidio, & Gaertner, 2009). Subtle prejudice and discrimination surfaces in the form of harassment, disparaging quips, avoidance, or other behaviours that are ambiguous and thus appear normal or trivial (Van Laer & Janssens, 2011). In this regard, it has become less acceptable for individuals to blatantly express their prejudice and discrimination against women (see Spence & Hahn, 1997). Instead, blatantly sexist acts have been replaced by more subtly sexist behaviours such as the use of sexist language or jokes, or the sexual objectification of women (e.g., Swim, Mallett, & Stangor, 2004). Of note, sexist jokes have become particularly popular in mainstream culture (e.g., Strain-Martens, & Saucier, 2016) likely reflecting the fact that underlying sexist sentiments are easily denied, hidden, and unnoticed when expressed through humour. Accordingly, one way to unpack contemporary sexism is by empirically investigating the impact of sexist humour. Before doing so, we first outline the social functions of (disparaging) humour.
Social Functions of Humour

Humour theorists have long discussed the positive and negative functions of humour. Some positive social functions of humour include facilitating playfulness and bonding with others (Martin, 2007). Moreover, an evolutionary perspective of humour suggests that humour originated as a signal to convey an absence of danger in one’s environment (Ramachandram, 1998), with responses of laughter convincing others to also interpret a situation as harmless (Owren & Bachorowski, 2003). With respect to the negative social functions, humour has been theorized to facilitate expressions of intergroup hostility in a way that is considered socially acceptable (Freud, 1905/1960). Importantly, research shows that disparaging humour can increase negative stereotypes about disadvantaged social groups (Maio, Olson, & Bush, 1997). Further, some people use humour aggressively to enhance their self-image at the cost of others, whereas others use humour to enhance their relationships at the expense of the self (Martin, Puhlik-Doris, Larsen, Gray, & Weir, 2003). Therefore, given that humour has both positive and negative social functions, humour can be considered an “ideal” context for expressing prejudice. In fact, humour is considered by many prejudice researchers to be one of the last remaining avenues for the expression of prejudice in contemporary society (e.g., see Ford, Boxer, Armstrong, & Edel, 2008; Hodson, Rush, & MacInnis, 2010; Hodson & MacInnis, 2016). Although intergroup jokes may appear playful and harmless, they can nonetheless satisfy negative intergroup motives and increase prejudice against social groups. As such, the effects of disparaging humour warrant further investigation.
Sexist Humour

As mentioned above, sexist humour is a common type of disparaging humour. Sexist humour demeanes, offends, objectifies, or portrays women in a stereotypical fashion (Woodzicka, 1994). Entering “sexist jokes” into a Google search engine produces over 21 million results, with most jokes containing descriptions of women as incompetent and inferior to men as well as quips about domestic abuse. Indeed, sexist jokes can be subdivided into different types. For the purposes of the present thesis, specifically Study 1, we refer to jokes that undermine women’s intelligence and competency as belittling sexist jokes. From examples derived from the internet, one belittling joke reads “What do UFOs and smart women have in common? You keep hearing about them, but never see any.” We operationalize aggressive sexist jokes as those that normalize violence and domestic abuse against women, such as “What do you tell a woman with two black eyes? Nothing, you already told her twice.” By communicating hostile and negative stereotypes about women and encouraging laughter at the expense of women’s social position, belittling and aggressive sexist jokes may uphold rather than challenge patriarchal relations.

Sexist humour likely facilitates and maintains male dominance through proximal, favourable reactions such as laughter and ratings of joke amusement and inoffensiveness (see Hodson et al., 2010). Laughter, for instance, has been conceptualized as a social reward that reinforces the behaviour of the joke-teller (Wood & Niedenthal, 2018). When individuals respond to sexist humour with laughter, this can signal that they support or like the joke and its prejudiced content, further encouraging sexist joke expressions. However, given that people also respond with laughter when anxious or uncomfortable (Wood & Niedenthal, 2018), laughter may not be the best indicator of sexist joke support. Instead, self-reported joke amusement and

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1 Throughout the thesis, the term “sexist humour” refers to female-disparaging jokes.
inoffensiveness may be better indicators of the joke recipient’s support for sexist joke content. Feeling *amusement* in response to a sexist joke reflects that the joke is pleasing or hedonically valuable (Hodson et al., 2010). Distinct from amusement is the degree to which a sexist joke is considered inoffensive. Interpreting sexist jokes as *inoffensive* conveys the message that sexist jokes are harmless and thus socially acceptable, or as Trump asserts, just “locker room talk.” Critically, brushing off sexist jokes as inconsequential is pernicious because it dismisses or trivializes the prejudice and discrimination experienced by women and the result is the delegitimization of women in society. Ultimately, favourable reactions to sexist humour (i.e., joke amusement and inoffensiveness ratings) are dismissive toward the role of sexism in society, and rule women “in” (vs. out) as acceptable targets for prejudice (see Hodson & MacInnis, 2016).

In the present body of literature on sexist humour, most research has examined men’s responses with only a handful of studies exploring women’s reactions to sexist jokes (detailed below). In the prejudice field, the focus of research has traditionally involved the reactions of members of higher status or advantaged groups (see Dovidio, Hewstone, Glick, & Esses, 2010). Therefore, it is relatively unclear how women react to humour that disparages their ingroup. As Hodson and MacInnis (2016) note, “equally exciting avenues can be pursued by examining how, when, and why *disadvantaged* groups use ingroup-derogating humor, and whether this obviates negativity toward the ingroup, diverts it to other disadvantaged groups, and/or more deeply entrenches the status quo (with the disadvantaged group “buying into” the disparagement)” (p. 71). Accordingly, the present thesis addresses the notable gap in the literature by investigating women’s responses to sexist communications. Specifically, in Study 1 we investigated the extent to which women reject sexist humour or internalize the disparagement by reacting favourably to
sexist jokes (i.e., with greater joke amusement and inoffensiveness ratings). To predict how women might overall respond to jokes that disparage their ingroup, we first turned to Social Identity Theory (Tajfel & Turner, 1979, 1986).

**Social Identity Theory**

According to Social Identity Theory (Tajfel & Turner, 1979, 1986), human interaction ranges on a continuum from purely *interpersonal*, where people see themselves as autonomous individuals to purely *intergroup*, where people perceive themselves and others in terms of belonging to groups. Not surprisingly, people categorize themselves and others into groups based on various characteristics (e.g., race, sex, ethnicity). Categorization ultimately affects an individual’s self-concept wherein they develop a social identity from belonging to certain social groups. Importantly, Social Identity Theory outlines that people fundamentally desire a positive social self-concept, which can be achieved by viewing one’s group as distinct from the corresponding outgroup; this desire for positive distinctiveness then motivates intergroup behaviour wherein individuals favour their ingroup over outgroups (e.g., Tajfel, Billig, Bundy, & Flament, 1971). Based on this rationale, individuals exposed to humour that elevates their ingroup at the expense of the outgroup could overall react more positively, that is, with reactions of amusement and inoffensiveness. In this way, their positive social identity is maintained. In contrast, individuals exposed to humour that disparages their ingroup could react unfavourably given that their ingroup is being negatively compared with respect to the outgroup; that is, humour disparaging one’s ingroup threatens one’s social self-concept and could result in negative reactions (i.e., becoming unamused and offended). Consistent with this rationale, research shows that men tend to rate anti-female humour as more amusing and inoffensive than do women (e.g., Love & Deckers, 1989; Neuliep, 1987). Men also report being more amused by
anti-female disparaging jokes than by anti-male disparaging jokes (Thomas & Esses, 2004), and Canadians disapprove of jokes more when the joke targets are Canadians as opposed to Americans or Mexicans (Hodson et al., 2010, Study 2). Moreover, in a sample of 230 undergraduate students in Romania (70.4% male, 29.6% female), Diaconu-Muresan and Stewart (2010) found that most participants (i.e., mainly men) rated sexist jokes as moderately funny, with women who identified as feminists reacting the least favourably to sexist jokes. Accordingly, in Study 1 of the present thesis, we expected that women would be overall less likely to appreciate jokes that disparage their ingroup (i.e., belittling and aggressive sexist jokes) relative to jokes of a non-sexist nature. Given that belittling jokes are relatively less hostile than aggressive jokes, we expected that women would consider aggressive jokes to be less amusing and more offensive than belittling jokes. In other words, we reasoned that women, desiring to maintain a positive social identity, might find jokes that demean their ingroup to be unamusing and offensive, particularly those more aggressive (relative to belittling) toward women in nature.

Despite the general tendency for individuals to favour their ingroup, however, important individual differences can affect whether lower status individuals favour their ingroup or exhibit pro-ingroup biases. Hierarchy-enhancing ideologies, for instance, are beliefs that endorse, legitimize, and protect existing social arrangements and thereby function to maintain the status quo (Jost, Kay, & Thorsdottir, 2009; Liviatan & Jost, 2011). Research shows that lower status individuals who endorse hierarchy-enhancing ideologies are more likely to exhibit outgroup favouritism or ingroup inferiority (e.g., Jost & Thompson, 2000; Overbeck, Jost, Mosso, & Flizik, 2004). Accordingly, we expected that certain hierarchy-enhancing ideologies could be important in predicting women’s favourable reactions to jokes disparaging their ingroup. That is, we hypothesized that women more strongly endorsing hierarchy-enhancing ideologies would
react to sexist (but not non-sexist) jokes with relatively greater amusement and inoffensiveness, ultimately reflecting a position of ingroup inferiority. To guide our selection of hierarchy-enhancing ideologies, we turned to Ambivalent Sexism Theory (Glick & Fiske, 1996) and Social Dominance Theory (Sidanius & Pratto, 1999).

Ambivalent Sexism Theory

Not all representations of women are solely negative (Glick & Fiske, 1996). For instance, the image of the female virgin has been idolized throughout time (Cooper, 1999), and often attitudes toward women are more positive than those for men, the so-called “women-are-wonderful” effect (Eagly & Mladinic, 1994). However, liking women is not the same as supporting rights for women (Eagly & Mladinic, 1989), meaning that women might be evaluated positively in some respects but nonetheless denied power and/or considered inferior to men. Distinct from other prejudices (e.g., racism or xenophobia), prejudice against women is unique in that men and women have necessarily been connected intimately with one another throughout history. This interdependence, alongside patriarchy, can produce an ambivalent rather than purely hostile attitude toward women, particularly (but not only) among men (Glick & Fiske, 1996). Glick and Fiske (1996) proposed Ambivalent Sexism Theory to explore the ambivalence that individuals can hold toward women, including hostile and benevolent sexism – two complementary attitudes that appear opposite in valence but nonetheless correlate positively (see also Glick et al., 2000). Hostile sexism is an antagonistic attitude toward women involving the justification of male dominance, traditional gender roles, and men’s exploitation of women. Hostile sexism reflects the view that women are inferior to men, and that patriarchal relations should remain unchallenged. Critically, higher national averages of hostile sexism are expressed in cultures with more structural gender inequality (Glick et al., 2000), suggesting that hostile
sexism may be a hierarchy-enhancing ideology relevant for maintaining patriarchal relations (i.e., bolstering the status quo).

**Benevolent sexism** involves a seemingly positive attitude toward women, such as the idea that women need to be protected and cherished by men, and that men are incomplete without women. Benevolent sexism involves subtler justifications of male dominance and a romanticized view of heterosexual relationships. Given that heterosexual men rely on women for childbearing, intimacy, and satisfaction of sexual needs, women are afforded “dyadic” power, which is reflected in positive attitudes toward women as mothers, wives, and romantic partners. Although outwardly positive, benevolent sexists view women in stereotypical ways that restrict their power in society. For instance, in one study, activating benevolent stereotypes (e.g., the goodwife, mother, etc.) resulted in increased support for hierarchical relations between men and women (Jost & Kay, 2005). Further, like hostile sexism, higher national averages of benevolent sexism are expressed in cultures with greater structural gender inequality (Glick et al., 2000), signifying that benevolent sexism may also maintain male dominance. Not surprisingly then, hostile and benevolent sexism are associated positively with one another in Western countries typically in the .3 to .6 range (e.g., Glick et al., 2000), demonstrating that together they characterize sexist ideology. That is, benevolent sexism may appear positive, but it operates in tandem with hostile sexism and can keep women in inferior positions.

Although women are less likely than men to endorse hostile sexism (but not benevolent sexism; Glick & Fiske, 2001)², research shows that both sexes endorse hostile and benevolent

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² Unlike men, women’s endorsement of benevolent sexist attitudes may be a self-protective response to environments that are hostile toward women (see Fischer, 2006). Benevolent sexist beliefs are outwardly positive and perhaps easier for women to internalize in a system that privileges men. Indeed, women tend to rate hostile sexists as highly unfavourable but benevolent sexists as mildly favourable, believing (incorrectly) that these sexist beliefs are independent of each other (Kilianski & Rudman, 1998).
sexism. Moreover, for both sexes, hostile and benevolent sexism similarly predict prejudice-related outcomes against women. For instance, for men and women, hostile sexism predicts tolerance of sexual harassment against women (Ford, Wentzel, & Lorion, 2001) and endorsement of negative attitudes and stereotypes about women (Glick & Fiske, 1996). In addition, for both sexes, benevolent sexism predicts endorsement of positive attitudes and stereotypes about women (Glick & Fiske, 1996) as well as an increased likelihood to blame female rape victims of acquaintance-perpetrated rape (Abrams, Viki, Masser, & Bohner, 2003).

Thus, for important prejudice-related outcomes, ambivalent sexism operates for men (i.e., the higher status group) and women (i.e., the lower status group) in similar ways that perpetuate gender inequality.

With respect to sexist joke reactions, benevolent sexism is likely less relevant to joke amusement or inoffensiveness given that those higher in benevolent sexism argue that women are special and need to be cherished at least to the extent that they adhere to traditional gender roles (Glick & Fiske, 1996). Given that sexist jokes typically depict negative stereotypes about women, they are more theoretically relevant to hostile sexism. Consistent with this rationale, among men, hostile – but not benevolent – sexism predicts ratings of greater amusement and inoffensiveness in response to sexist jokes (e.g., Greenwood & Isbell, 2002; Thomas & Esses, 2004). Fewer studies have examined women’s reactions to sexist jokes, and those that have also demonstrate that hostile – but not benevolent – sexism predicts sexist joke amusement and inoffensiveness (Greenwood & Isbell, 2002). Accordingly, in Study 1, we expected that women scoring higher in hostile sexism would be more likely to show amusement and inoffensiveness in response to aggressive and belittling but not neutral (i.e., non-sexist) jokes. That is, women
endorsing an antagonistic attitude justifying male dominance were expected to demonstrate ingroup inferiority in response to jokes disparaging their ingroup.

Social Dominance Theory

Like ambivalent sexism, social dominance orientation (SDO) is a hierarchy-enhancing ideology that may also maintain and perpetuate gender inequality. Social Dominance Theory, proposed by Sidanius and Pratto (1999; see also Pratto, Sidanius, & Levin, 2006), outlines that human societies almost universally adopt group-based hierarchies, where access to power and resources is unequally distributed across social groups. At the higher (vs. lower) end, SDO represents the desire for unequal intergroup relations and the valuing of group-based power and dominance over lower status groups. In an initial test of the predictive validity of SDO, Pratto, Sidanius, Stallworth, and Malle (1994) conducted a meta-analytic analysis on 13 samples with approximately 2000 college participants varying in sex, ethnicity, and income. In every sample, SDO strongly and positively predicted sexist attitudes toward women and Black individuals; moreover, it was associated strongly and negatively with support for social policies reducing group inequality and women’s and LGBTQ rights. Subsequent research has shown that SDO strongly predicts various prejudice-related outcomes as well as prejudice against lower status groups (e.g., Altemeyer, 1998; Asbrock, Sibley, & Duckitt, 2009; Hodson & Costello, 2007; Hodson et al., 2013; Sibley & Duckitt, 2008; Whitley, 1999). Thus, as a general hierarchy-enhancing ideology, SDO might also function to perpetuate male dominance (see also MacInnis & Hodson, 2015).

Importantly, SDO is associated positively with attitudes and policies that support dominant group members and associated negatively with attitudes and policies that support lower status group members (Pratto et al., 2000, 2006). This is true for members of lower or higher
status groups. In other words, for higher status group members SDO is associated with greater outgroup prejudice, whereas for lower status group members SDO is associated with greater ingroup prejudice (and prejudice against other marginalized groups). In this regard, lower status individuals who support hierarchy-enhancing ideologies such as SDO express ingroup inferiority (Overbeck et al., 2004; Thompson & Jost, 2000). These patterns are also consistent with System Justification Theory (Jost & Andrews, 2011; Jost & Banaji, 1994; Jost, Banaji, & Nosek, 2004) which outlines that individuals who endorse hierarchy-enhancing ideologies tend to accept and justify group-based hierarchies even if they do not benefit their own group or self (possibly for reasons such as psychological stability, perceptions of fairness, etc.). Consequently, lower status group members who endorse greater SDO are expected to demonstrate ingroup inferiority by supporting attitudes, beliefs, comments, and policies that perpetuate oppressive social systems.

Within a sexist humour context, research shows that men higher (vs. lower) in SDO are more likely to rate sexist jokes as inoffensive (Thomas & Esses, 2004). Similarly, Canadians higher (vs. lower) in SDO consider anti-Mexican jokes more amusing and inoffensive (Hodson et al., 2010). Critically, no studies to our knowledge have investigated SDO as a predictor of sexist joke reactions among women. Consistent with how lower status group members who are higher in SDO support outcomes that perpetuate oppressive systems, we expected that women endorsing greater SDO would be more likely to rate sexist (but not neutral) jokes as relatively more amusing and inoffensive. That is, as a hierarchy-enhancing ideology, SDO – like hostile sexism – may also be likely to predict favourable sexist joke reactions among women. Notably, relative to hostile sexism, SDO might be a weaker predictor of favourable sexist joke reactions given that hostile sexism directly refers to sexist intergroup relations whereas SDO refers to hierarchical social systems in general.
Cavalier Humour Beliefs

In addition to hostile sexism or SDO, another individual difference variable that might predict women’s favourable reactions to sexist jokes is cavalier humour beliefs. Cavalier humour beliefs encompass a lighthearted, less serious, and nonchalant mentality toward humour in general (Hodson et al., 2010). Cavalier humour beliefs include the idea that jokes are fun and harmless, or “just jokes.” Although cavalier humour beliefs can pertain to life outside of the domain of prejudice, some individuals are more likely to adopt cavalier humour beliefs, including those higher in SDO (Hodson et al., 2010). Further, research shows that cavalier humour beliefs are associated with support for humour that is aggressive toward others and prejudice toward outgroups (Hodson et al., 2010). In research by Hodson and colleagues, Canadians (i.e., higher status group) scoring higher (vs. lower) in cavalier humour beliefs were more amused and less offended by jokes targeting Mexicans (lower status group). Therefore, given that cavalier humour beliefs are associated with predictors of prejudice, support for aggressive humour, and favourable reactions to humour disparaging lower status groups, cavalier humour beliefs may also be a relevant predictor of favourable sexist joke reactions among women. That is, women endorsing cavalier humour beliefs might be more likely to rate sexist jokes as amusing and inoffensive; given that cavalier humour beliefs are not solely relevant to the domain of prejudice, we expected that they would also predict favourable reactions to neutral jokes (see Hodson et al., 2010).

Study 1

The purpose of Study 1 was to explore women’s reactions to sexist jokes given that most research has examined men’s reactions to sexist humour. Consistent with Social Identity Theory, we expected that women overall would rate sexist jokes (aggressive or belittling) as less amusing
and inoffensive than neutral jokes. That is, given that individuals tend to favour their ingroup
women were expected to rate jokes that demean and belittle their ingroup to be unamusing and
offensive. Given that aggressive jokes are relatively more hostile than belittling jokes, we further
predicted that women would rate aggressive jokes more unfavourably than belittling jokes.
Critically, however, we expected that important individual differences would predict women’s
relative internalization or acceptance of sexist jokes, that is, ratings of greater sexist joke
amusement and inoffensiveness. Specifically, we investigated whether women’s endorsement of
hostile sexism or SDO would predict more amusement and inoffensiveness for aggressive and
belittling but not neutral jokes. Benevolent sexism was not expected to predict joke reactions
given that the antagonistic nature of our sexist jokes was theoretically more relevant to hostile
sexist beliefs. Because cavalier humour beliefs predict favourable joke reactions for both
disparaging and neutral jokes (Hodson et al., 2010), we expected that cavalier humour beliefs
would predict greater ratings of joke amusement and offensiveness for aggressive, belittling, and
neutral jokes alike. In our analyses, individual difference variables were entered simultaneously
to predict joke amusement and inoffensiveness, with analyses run separately for aggressive,
belittling, and neutral jokes (see Figure 1). Relative to SDO – which refers to social hierarchies
in general – hostile sexism more directly relates to sexist intergroup relations and therefore the
content of the sexist jokes; accordingly, we expected that hostile sexism would be the stronger
predictor of joke amusement and inoffensiveness for aggressive and belittling (but not neutral)
jokes. As an exploratory analysis, we tested whether the associations between hostile sexism,
SDO, or cavalier humour beliefs with joke amusement and inoffensiveness differed as a function
of sexist joke type (e.g., might those higher in hostile sexism be relatively more amused by
aggressive versus belittling jokes?). Accordingly, in the current study, we outline five hypotheses:

H1a: Overall, women will rate aggressive or belittling jokes as less amusing than neutral jokes; aggressive jokes will be rated as less amusing than belittling jokes.

H1b: Overall, women will rate aggressive or belittling jokes as less inoffensive than neutral jokes; aggressive jokes will be rated as less inoffensive than belittling jokes.

H2: Higher (vs. lower) hostile sexism or SDO will predict greater joke amusement and inoffensiveness for aggressive and belittling but not neutral jokes.

H3: Relative to SDO, hostile sexism will more strongly predict joke amusement and inoffensiveness for sexist versus neutral jokes.

H4: Higher (vs. lower) cavalier humour beliefs will predict greater joke amusement and inoffensiveness for aggressive, belittling, and neutral jokes.

H5: As an exploratory hypothesis, we tested whether the associations between hostile sexism, SDO, or cavalier humour beliefs with joke amusement and inoffensiveness differed in magnitude as a function of joke type.
Figure 1. Conceptual model of individual difference variables simultaneously predicting joke amusement and inoffensiveness ratings; analyses were run separately for aggressive, belittling, and neutral jokes (i.e., three models were tested).

Study 1 Methodology

Participants and Procedure

Data were collected from 225 female participants at Brock University (Canada) with a mean age of 20.30 ($SD = 4.40$), 65.8% of which were White, 9.8% were Black, 15.1% were Asian, 1.8% were Aboriginal, 2.2% were Middle Eastern, 3.3% were Hispanic, and 3.1% who identified as another race. In terms of sexual orientation, 85.8% of participants identified as heterosexual, 3.6% as homosexual, 7.1% as bisexual, .4% as asexual, 2.2% who did not know, and 2.2% who specified another sexual orientation (e.g., sapiosexual, demisexual, etc.). Most participants identified as undergraduate students: 50.2% reported being in first year of university, 19.6% in second year, 11.6 percent in third year, 13.3% in fourth year, and 2.7 in fifth year; 2.2%
Participants were recruited via Brock University’s online undergraduate research participation pool (i.e., SONA); interested participants read our study advertisement titled “Jokes and Humour Ratings” and signed up to participate. Participants came into the laboratory and completed all measures on a computer via a Qualtrics survey link. After indicating consent, participants filled out the cavalier humour beliefs scale. Participants then rated 30 jokes (i.e., ten aggressive jokes, ten belittling jokes, and ten neutral jokes), in a randomized order, with respect to how funny, repeatable, and offensive each joke was considered. After, participants completed measures of hostile sexism and SDO, also in a randomized order. Participants then provided demographic information before reading the debriefing form. Once they completed the survey, participants were verbally debriefed one-on-one about the study’s general purpose. For compensation, participants either chose to receive $5 or half a research participation credit.

Measures

Demographics. A demographic questionnaire was administered assessing race, sex, sexual orientation, age of participants, and educational background (Appendix A). We also asked for hair colour to evaluate whether having blonde hair affected joke amusement and inoffensiveness ratings of the dumb blonde jokes. No personally identifying information was collected.

Cavalier humour beliefs. Hodson and colleagues’ (2010) six item Cavalier Humour Beliefs Scale was administered (Appendix B). Participants were asked to indicate their level of agreement or disagreement with items on a scale from 1 = strongly disagree to 7 = strongly agree. A sample item from the scale reads: “Society needs to lighten up about jokes and humour
Scores were created by averaging participants’ responses to the items. After reverse coding, higher averaged scores indicated higher levels of cavalier humour beliefs ($\alpha = .72$).

**Joke ratings.** Participants were exposed to 30 jokes, providing joke reactions immediately after each joke (Appendix C). Three types of jokes were shown: 10 neutral jokes, 10 belittling (sexist) jokes about women, and 10 aggressive (sexist) jokes about women. Two neutral jokes included: “How do you make an Octopus laugh? With ten-tickles” and “What do you call a fake noodle? An Impasta.” Two belittling jokes included: “What's the difference between Big Foot and an intelligent woman? Big Foot has been spotted several times” and “What do women and beer bottles have in common? They're both empty from the neck up.” Two aggressive jokes included: “I like my violence like I like my beer: domestic” and “What do you do when your wife is staggering? Shoot her again.” Immediately following each joke, participants rated the joke’s funniness, repeatability, and offensiveness on a scale from 1 (not at all) to 9 (extremely). Joke funniness and repeatability ratings were highly correlated (neutral jokes, $r = .81$; belittling jokes, $r = .84$; aggressive jokes, $r = .86$), as in past research ($rs = .76 - .86$ in Hodson et al., 2010 and $rs = .78 - .88$ in Thomas & Esses, 2004), and thus were averaged into a joke amusement variable. Offensiveness scores were reverse scored into inoffensiveness ratings so that higher scores indicated more favourable reactions. Joke inoffensiveness was conceptually distinct and statistically less correlated with joke funniness and repeatability. Neutral, belittling, and aggressive joke amusement ratings demonstrated high reliability ($\alpha = .90$, $\alpha = .99$, and $\alpha = .91$ respectively). Neutral, belittling, and aggressive joke inoffensiveness ratings also showed high reliability ($\alpha = .82$, $\alpha = .94$, and $\alpha = .94$ respectively).

**Social dominance orientation.** The 16-item Social Dominance Orientation Scale (i.e., SDO$_7$) was administered (Ho et al., 2015) (Appendix D). Participants were asked to indicate
their level of agreement or disagreement with the items on a scale from 1 = strongly favour to 7 = strongly disfavour. Two items from the scale read “Superior groups should dominate inferior groups” and “Some groups of people must be kept in their place.” Scores were created by averaging participants’ responses to the items. After reverse coding, higher averaged scores indicated higher levels of SDO (α=.90).

**Ambivalent sexism inventory.** Glick and Fiske’s (1996) 22-item Ambivalent Sexism Inventory was administered to measure hostile (11 items) and benevolent (11 items) sexism (Appendix E). Participants were asked to indicate their level of agreement or disagreement with the items on a scale from 0 = disagree strongly to 5 = agree strongly. Two examples from the hostile sexism sub-scale include the following: “Once a woman gets a man to commit to her, she usually tries to put him on a tight leash” and “Many women are actually seeking special favours, such as hiring policies that favour them over men, under the guise of asking for ‘equality.’” Two examples from the benevolent sexism sub-scale included: “Women should be cherished and protected by men” and “Every man ought to have a woman whom he adores.” Scores for hostile and benevolent sexism were created by averaging participants’ responses to the corresponding 11 items for each subscale. After reverse coding, higher averaged scores indicated higher levels of hostile sexism (α=.88) and benevolent sexism (α=.75).

**Suspicion check.** To determine whether participants recognized the purpose of the study, they were asked to respond to four open-ended items such as “Can you guess what the study was about?” and “Did anything about the study make you suspicious? If yes, please elaborate” (Appendix L). Of those who responded, none accurately guessed the hypotheses or goals of the study.
Study 1 Results

Tests of Assumptions

Examination of all variables revealed 16 outliers: four scores more than three standard deviations (i.e., SDs) below the mean on neutral joke inoffensiveness, three scores greater than three SDs above the mean on belittling joke amusement, eight scores greater than three SDs above the mean on aggressive joke amusement, and one score greater than three SDs above the mean on hostile sexism. These scores were winsorized (i.e., converted to the value at three SDs below/above the mean).

Before proceeding with our analyses, we checked that statistical assumptions were met. To evaluate assumptions of linearity and homoscedasticity, zpred and zresid plots were examined. Linearity and homoscedasticity for most regression analyses was met given that the predicted values and residuals for most variables were random and there were no funnel shapes (however, neutral joke inoffensiveness and aggressive joke amusement showed slight deviations). To evaluate the assumption of independence, Durbin-Watson values were examined. Independence for all regression analyses was met given that all values fell within the range of 1.85 and 2.15 (i.e., within the acceptable range of 1.5 and 2.5). To evaluate the assumption of normality, p-P plots and histograms were examined. The p-Plots for most regression analyses were normal as most points clustered along the diagonal line for each outcome variable except for neutral joke inoffensiveness, which deviated considerably. Almost all histograms were normal given that frequencies tended to be high in the centre of the distributions and lower toward the extremes. That is, most skewness and kurtosis values neared zero for the sexist jokes; however, neutral joke inoffensiveness was negatively skewed ($G_1=-3.00$) and peaks (i.e.,
kurtosis) for neutral joke inoffensiveness ($Z_{\kappa^2}=8.41$) and aggressive joke amusement ($Z_{\kappa^2}=3.31$) were taller and narrower.

Although the distributions for neutral joke inoffensiveness and aggressive joke amusement did not meet the assumption of normality, the Central Limit Theorem outlines that as samples get larger ($N > 100$) the sample distribution has a normal distribution with a mean equal to the population mean (Field, 2013). In other words, in large samples parameter estimates will have likely come from a normal distribution regardless of the appearance of the sample data. Of importance, Wilcox (2010) demonstrates that when sampling from heavy-tailed or skewed distributions, 200 observations are needed for the central limit theorem to provide accurate results. Therefore, given that neutral joke inoffensiveness contained 225 observations, concerns of non-normality are presumably alleviated. Moreover, the use of robust methods such as bootstrapping, which we employ, help to reduce bias in parameter estimates, confidence intervals, and significance testing (Field, 2013).

Most variables contained complete data from all 225 participants, except for social dominance orientation ($N = 221$) and hostile sexism ($N = 218$). With less than 5% of data missing, corrective steps are generally not deemed necessary (Graham, 2009). That is, results are expected to be similar regardless of the employment of a missing data technique. Nonetheless, for tests of models we employed Expectation Maximization to deal with missing data given that AMOS requires complete data to derive bootstrapping estimates.

**Preliminary Analyses**

**Zero-order correlations among variables.** Means, standard deviations, and zero-order correlations are shown in Table 1. As expected, higher hostile sexism was associated with higher benevolent sexism, cavalier humour beliefs, belittling joke amusement, belittling joke
inoffensiveness, aggressive joke amusement, and aggressive joke inoffensiveness. As predicted, higher hostile sexism did not correlate with neutral joke amusement and neutral joke inoffensiveness. Overall, hostile sexism was (most) relevant to predicting favourable sexist (but not neutral) joke reactions, whereas benevolent sexism was largely uncorrelated with joke reactions (with one exception, see Table 1), consistent with past literature (Greenwood & Isbell, 2002; LaFrance & Woodzicka, 1998); therefore, benevolent sexism was not included as a predictor in the subsequent models.

Higher SDO correlated with higher hostile sexism, cavalier humour beliefs, belittling joke inoffensiveness, and aggressive joke inoffensiveness. SDO did not correlate with neutral joke amusement or neutral joke inoffensiveness, as predicted, or with belittling joke amusement and aggressive joke amusement, which was not expected. Higher cavalier humour beliefs were associated with higher neutral joke amusement and inoffensiveness, belittling joke amusement and inoffensiveness, and aggressive joke amusement and inoffensiveness. Thus, as expected, cavalier humour beliefs were associated with favourable reactions for all joke types, including neutral jokes (see Hodson et al., 2010). For magnitude of relations, and other patterns of associations, refer to Table 1.
### Table 1

*Means, standard deviations, and zero-order correlations among variables (Study 1)*

|                                | Mean (SD) | 2   | 3   | 4   | 5   | 6   | 7   | 8   | 9   | 10  |
|--------------------------------|-----------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 1. Social Dominance Orientation | 2.34 (.93)| .46*** | .26*** | .16* | -.13 | -.05 | .04 | .26*** | .10 | .28*** |
| 2. Hostile Sexism              | 1.84 (.92)| .30*** | .34*** | -.11 | .05 | .38*** | .44*** | .33*** | .44*** |
| 3. Benevolent Sexism           | 2.10 (.76)| .01 | -.20** | -.01 | .08 | .09 | -.03 | .01 |
| 4. Cavalier Humour Beliefs     | 4.30 (.88)| .11 | .20** | .41*** | .45*** | .42*** | .43*** |
| 5. Neutral Joke Amusement      | 4.11 (1.64)| -.12 | .40*** | -.16* | .23*** | -.10 |
| 6. Neutral Joke Inoffensiveness | 8.89 (.28)| .03 | .22** | .00 | .14* |
| 7. Belittling Joke Amusement   | 2.43 (1.32)| .45*** | .75*** | .40*** |
| 8. Belittling Joke Inoffensiveness | 5.72 (2.18)| .41*** | .84*** |
| 9. Aggressive Joke Amusement   | 1.67 (.99)|                  | .52*** |
| 10. Aggressive Joke Inoffensiveness | 4.13 (2.44)|                  |

*Note. N = 225. *p < .05, **p < .01, ***p < .001.*
Primary Analyses

**Mean differences in joke amusement and inoffensiveness by joke type.** To test Hypothesis 1, two repeated measures one-way ANOVAs were performed: the first to examine whether joke amusement differed by neutral, belittling, and aggressive joke types, and the second to examine whether joke inoffensiveness differed by neutral, belittling, and aggressive joke types.\(^3\)\(^4\) Regarding joke amusement, the ANOVA produced a significant effect of joke type on joke amusement ratings, \(F(2, 448) = 328.83, p < .001, \text{partial} \eta^2 = .59.\) Consistent with Hypothesis 1a, Bonferroni-corrected pairwise mean comparisons showed that all means significantly differed from each other (all \(p < .001\)) (see Figure 2). As expected, aggressive or belittling jokes were rated as less amusing than neutral jokes, and aggressive jokes were rated as less amusing than belittling jokes. Regarding joke inoffensiveness, the ANOVA produced a significant effect of joke type on joke inoffensiveness ratings, \(F(2, 448) = 653.833, p < .001, \text{partial} \eta^2 = .74.\) Consistent with Hypothesis 1b, Bonferroni-corrected pairwise mean comparisons showed that all means significantly differed from each other (all \(p < .001\)) (see Figure 3). That is, aggressive or belittling jokes were rated as less inoffensive than neutral jokes, and aggressive jokes were rated as less inoffensive than belittling jokes.

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\(^3\) We also ran two independent samples \(t\)-tests to determine if having blonde hair (vs. having non-blonde hair colours) affected amusement and inoffensiveness ratings of (three) dumb blonde jokes in our belittling joke category. There was no significant mean difference in amusement of dumb blonde jokes for individuals with blonde hair \((M = 3.16, SD = 2.07)\) versus individuals without blonde hair \((M = 3.36, SD = 1.87)\), \(t(222) = .67, p = .504\), as well as no significant mean difference in inoffensiveness of dumb blonde jokes for individuals with blonde hair \((M = 2.89, SD = 2.11)\) versus individuals without blonde hair \((M = 3.18, SD = 2.32)\), \(t(222) = .79, p = .431\). Thus, we kept the blonde jokes in our belittling joke category and proceeded with the main repeated-measures ANOVAs.

\(^4\) The sphericity assumption was violated for both ANOVAs; however, given the large sample size, Mauchly’s test likely detected small deviations in variances across levels of the joke variables. In support of this, sphericity-assumed and sphericity-corrected (e.g., Greenhouse-Geisser) \(p\)-values and \(F\) statistics were identical to each other, suggesting that the \(F\)-ratios were not inflated due to violations of sphericity (i.e., no undue risk of type I error). As a precaution, Bonferroni post-hoc tests were used, which are conservative in detecting mean differences and are robust against sphericity violations (e.g., Keselman & Keselman, 1988; Keselman, Keselman, & Shaffer, 1991).
Figure 2. Mean differences in joke amusement by joke type (standard error bars: 95% CI).
Figure 3. Mean differences in joke inoffensiveness by joke type (standard error bars: 95% CI).
**Model tests and multiple groups analysis.** To test Hypotheses 2-5, a multiple groups analysis was conducted using AMOS 24. We simultaneously entered all three predictors (hostile sexism, SDO, and cavalier humour beliefs) and both outcome variables (amusement and inoffensiveness) into each model, once for each type of joke. Bootstrapping (1000 iterations, 95% bias-corrected estimates) was employed to provide confidence intervals and test the significance of paths separately for neutral, belittling, and aggressive jokes. That is, we first, tested the significance of paths for each joke type, and the multiple-groups analysis then assessed whether the nature or strength of the relations significantly differed by joke type.

The model tests for aggressive (Figure 4), belittling (Figure 5), and neutral (Figure 6) jokes reveal results largely as expected. As hypothesized, higher (vs. lower) hostile sexism significantly predicted greater joke amusement and inoffensiveness for aggressive and belittling but not neutral jokes (Hypothesis 2). Contrary to expectations, SDO did not predict joke amusement or inoffensiveness for aggressive or neutral jokes; SDO did not predict joke inoffensiveness for belittling jokes but unexpectedly predicted less amusement for belittling jokes (Hypothesis 2). Consistent with Hypothesis 3, relative to SDO, hostile sexism was a stronger predictor of joke amusement and inoffensiveness regarding aggressive and belittling jokes. Further as expected, higher (vs. lower) cavalier humour beliefs significantly predicted greater joke amusement and inoffensiveness for aggressive, belittling, and neutral jokes (Hypothesis 4). In other words, although women generally opposed sexist jokes, those higher (vs. lower) in hostile sexism or cavalier humour beliefs were more likely to internalize or accept the sexist jokes.
Figure 4. Unstandardized relations between individual difference variables with joke amusement and inoffensiveness for aggressive jokes (standardized values in parentheses). Error terms and inter-correlations among predictors were modelled but are not shown here.

Figure 5. Unstandardized relations between individual difference variables with joke amusement and inoffensiveness for belittling jokes (standardized values in parentheses). Error terms and inter-correlations among predictors were modelled but are not shown here.
Figure 6. Unstandardized relations between individual difference variables with joke amusement and inoffensiveness for neutral jokes (standardized values in parentheses). Error terms and inter-correlations among predictors were modelled but are not shown here.
Results from the multiple groups analysis comparing path differences by joke type are shown in Table 2. Estimates of path differences were generated in AMOS\textsuperscript{5}. Consistent with Hypothesis 5 (exploratory), we tested whether the associations between hostile sexism, SDO, or cavalier humour beliefs with joke amusement and inoffensiveness differed by joke types. Of note, we found that the relation between greater cavalier humour beliefs and joke inoffensiveness was stronger for aggressive than neutral jokes, as well as stronger for belittling than neutral jokes. That is, despite appearing to be outside the domain of prejudice, cavalier humour beliefs more strongly predicted sexist (vs. neutral) joke inoffensiveness. We also found that the strength of the relations between hostile sexism with joke amusement and inoffensiveness did not differ between aggressive versus belittling jokes; the reactions were essentially comparable. In addition, the strength of the relations between cavalier humour beliefs with joke amusement and inoffensiveness did not differ between aggressive or belittling jokes. That is, the degree to which hostile sexism or cavalier humour beliefs both predicted joke amusement and inoffensiveness for each sexist joke category was comparable in magnitude. See Table 2 for other path comparisons.

\textsuperscript{5} We used Gaskin’s “My Groups Differences” estimand (see http://statwiki.kolobkreations.com/index.php?title=MainPage). This estimand generates standard errors and confidence intervals for unstandardized path differences to determine whether they significantly differ from zero, that is, whether the nature or direction of a path significantly differs across groups.
Table 2

Multiple groups analysis comparing model paths by joke type (Study 1)

<table>
<thead>
<tr>
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<th>Estimate of path difference</th>
<th>95% Confidence Interval</th>
<th>P-value</th>
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</thead>
<tbody>
<tr>
<td><strong>Aggressive vs. Neutral Jokes</strong></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Hostile sexism → amusement</td>
<td>.48</td>
<td>[.14, .79]</td>
<td>.008</td>
</tr>
<tr>
<td>Hostile sexism → inoffensiveness</td>
<td>.74</td>
<td>[.33, 1.06]</td>
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</tr>
<tr>
<td>SDO → inoffensiveness</td>
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<td>[-.05, .64]</td>
<td>.084</td>
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<td>.586</td>
</tr>
<tr>
<td>CHB → inoffensiveness</td>
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<td><strong>Belittling vs. Neutral Jokes</strong></td>
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<td>Hostile sexism → amusement</td>
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<td>[.37, 1.05]</td>
<td>.002</td>
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<td>SDO → inoffensiveness</td>
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<td><strong>Aggressive vs. Belittling Jokes</strong></td>
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<td>.890</td>
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</table>

*Note.* SDO = Social dominance orientation. CHB = Cavalier humour beliefs. Path differences were calculated based on the unstandardized values.

**Study 1 Discussion**

Results from Study 1 largely confirmed our hypotheses. Overall, we found that women rated the aggressive jokes as less amusing than the belittling jokes, and the belittling jokes as less amusing than the neutral jokes. Further, the aggressive jokes were rated as less inoffensiveness than the belittling jokes, and the belittling jokes were rated as less inoffensive than the neutral jokes. In other words, jokes were less funny and more offensive the more disparaging or sexist.
their nature. These results are consistent with Social Identity Theory (Tajfel & Turner, 1979, 1986), which outlines that people are motivated to maintain a positive social identity and do so by seeing themselves as distinct from their corresponding outgroup(s); in turn, positive distinctiveness motivates individuals to favour their ingroup. In the present context, women, given the general desire to maintain a positive social identity, found jokes that demeaned and belittled their ingroup to be unamusing and offensive. In contrast, men are more likely to rate sexist jokes favourably (e.g., Diaconu-Muresan & Stewart, 2010; Love & Deckers, 1989; Neuliep, 1987), presumably because sexist jokes elevate their ingroup and do not threaten their social identity (and indeed can bolster it).

Although women overall rejected sexist jokes with their unfavourable reactions to jokes targeting their ingroup, we theorised that important individual differences would predict whether some women accept or internalize sexist jokes. Consistent with our hypotheses and research showing that lower status individuals who endorse hierarchy-enhancing ideologies display outgroup favouritism or ingroup inferiority (e.g., Overbeck et al., 2004), women scoring higher (vs. lower) in hostile sexism considered sexist (but not neutral) jokes to be more amusing and inoffensive (and by implication, “harmless”). The relations between hostile sexism and joke amusement or inoffensiveness were comparable in size for belittling and aggressive jokes, reflecting that women who endorse greater hostile sexism favour both joke types equally for their sexist nature. Despite SDO correlating positively with aggressive and belittling (but not neutral) joke inoffensiveness, in the multiple regression-based path models SDO did not predict inoffensiveness for aggressive or belittling jokes, nor did it predict amusement for aggressive
jokes (however, SDO did predict less amusement for belittling jokes\(^6\)). Therefore, we demonstrate that relative to SDO, hostile sexism is a better predictor of women’s favourable reactions to sexist jokes, likely because it directly taps into beliefs about sexist intergroup relations whereas SDO involves favouring social hierarchies in general. Overall, this finding is consistent with research by Greenwood and Isbell (2002) showing that hostile sexism (vs. SDO) is also a more relevant predictor of men’s favourable reactions to sexist jokes. Accordingly, we replicate the same pattern but critically with women as respondents.

Although cavalier humour beliefs encompass a lighthearted, less serious mindset toward humour in general, they are associated with favourable reactions to hostile humour and prejudice against marginalized groups (Hodson et al., 2010). We therefore theorized that in addition to predicting amusement and inoffensiveness for neutral or non-discriminatory jokes, women’s endorsement of cavalier humour beliefs would also predict ratings of amusement and inoffensiveness for belittling and aggressive sexist jokes. Consistent with this rationale we found that women scoring higher (vs. lower) in cavalier humour beliefs rated neutral jokes as more amusing and inoffensive. Moreover, independent of hostile sexism, women scoring higher in cavalier humour beliefs rated belittling and aggressive jokes as more amusing and inoffensive. In this way, cavalier humour beliefs operated like hostile sexism (and comparably in magnitude) to predict internalization of sexist joke content, or ingroup inferiority. Importantly, by predicting favourable reactions for all types of humour, including non-disparaging jokes, cavalier humour beliefs can provide cover for supporting sexist joke content.

\(^6\) We caution the reader to not read too much into this result given that there was no zero-order correlation between SDO and belittling joke amusement; given that all predictors were entered simultaneously, this result likely represents a suppression effect.
Interestingly, the relation between cavalier humour beliefs and joke inoffensiveness was stronger for aggressive than neutral jokes, and stronger for belittling than neutral jokes (and comparable for aggressive versus belittling jokes). Thus, although cavalier humour beliefs are outside the realm of prejudice they may be particularly relevant for predicting favourable sexist joke reactions given that they allow people to “brush off” the negative intergroup qualities of jokes. That is, believing “jokes are just jokes” likely accommodates the notion that sexist jokes are socially acceptable. Cavalier humour beliefs were also associated positively with hostile sexism and SDO, further suggesting that prejudice-prone individuals are more likely to adopt cavalier humour beliefs. Given that the predictive validity of cavalier humour beliefs has not been examined in a sexist humour context, nor among lower status group members, these findings are novel and contribute considerably to the field.

Although untested in the present study, another potentially relevant predictor of women’s sexist joke reactions is ingroup identification. According to Social Identity Theory, highly identified ingroup members feel more positively about their group membership and more connected with others in their group. (Tajfel & Turner, 1986). Consistent with this idea, people are motivated to maintain a positive ingroup image in the face of group threat (e.g., Fein & Spencer, 1997). Accordingly, women who identify more with their ingroup (i.e., women) may be less likely to rate sexist (but not neutral) jokes favourably. In contrast, women who are less identified with their ingroup may rate sexist jokes more favourably (LaFrance & Woodzicka, 1998). Indeed, one study found that identifying with women predicted lower amusement to sexist jokes. In Study 2, we therefore considered the relevance of ingroup identification in an experimental context.
Of note, in Hodson and colleagues’ (2010) studies, higher status group members (i.e., Canadians) scoring higher in SDO did not react favourably (i.e., with amusement or inoffensiveness) to jokes that targeted their ingroup. Instead, Canadians scoring higher in SDO only showed amusement and inoffensiveness to jokes targeting the lower status outgroup (i.e., Mexicans). In contrast, in the present study, those women (i.e., the lower status group) scoring higher in hostile sexism, the relevant hierarchy-enhancing ideology in the present context, demonstrated favourable reactions to jokes that targeted their ingroup. These differences might suggest that social status is relevant in terms of predicting reactions to jokes that target one’s ingroup, with lower status individuals being more likely to internalize ingroup inferiority.

Despite women overall rejecting or responding negatively to sexist jokes, the design of Study 1 allowed us to investigate the hierarchy-enhancing ideologies and individual differences most associated with positive reactions to sexist humour among women. Relative to SDO, we found that hostile sexism and cavalier humour beliefs more strongly predicted ratings of sexist joke amusement and inoffensiveness. By reacting with greater amusement, these women indicated that disparaging jokes against their ingroup were relatively more pleasing and hedonically valuable to them, ultimately signaling greater support for the sexist joke content. Reacting with inoffensiveness further demonstrated that the sexist jokes were considered harmless and thus socially acceptable. Importantly, women’s favourable reactions to sexist jokes dismiss or trivialize the prejudice and discrimination that women routinely experience, thereby ruling women in as acceptable targets for prejudice (see Hodson & MacInnis, 2016). Given little research testing women as participants in the disparaging humour literature, Study 1 was important for determining the (most) relevant predictors of favourable reactions to sexist jokes among women. In Study 2, we turn to examining the effects of exposure to sexist humour among
women using a between-subjects experimental design. Previous research has primarily explored the effects of sexist humour exposure among men, hence we asked whether exposure to sexist jokes among women could also generate negative bias effects against women (and other marginalized groups). Accordingly, to further expand the current body of literature, we investigated the effects of sexist humour exposure among women while considering the relevance of hostile sexism, cavalier humour beliefs, and ingroup identification.

**Study 2**

Positive reactions to sexist humour signal support for, and tolerance of, sexism. Women who express amusement and inoffensiveness regarding aggressive and belittling jokes therefore demonstrate ingroup inferiority and maintain rather than challenge male dominance in society. Most disturbingly, women who are not offended by sexist jokes convey the message that violence and/or discrimination against women is harmless banter that can be brushed off as “locker-room talk.” In effect, this “rules in” women as acceptable targets of prejudice and functions to legitimize patriarchal relations (see Hodson & MacInnis, 2016). Amusement and inoffensiveness are two proximal reactions to sexist humour that maintain rather than challenge the status quo. But can sexist humour also affect how women view themselves and treat other women, functioning to not only maintain but also actively perpetuate male dominance?

Study 1 established that although women overall rated sexist jokes unfavourably, those with relatively higher scores in hostile sexism or cavalier humour beliefs expressed more favourable reactions to sexist jokes. Although these results are informative, the causal effects of sexist (vs. neutral) humour exposure among women remain unclear given that few studies have experimentally examined women’s responses to sexist humour (e.g., Ford, Woodzicka, Petit, Richardson, & Lappi, 2015; LaFrance & Woodzicka, 1998; Mallett, Ford, & Woodzicka, 2016).
In contrast, a substantial amount of research has explored the consequences of sexist humour exposure among men (e.g., Ford, 2000; Ford & Ferguson, 2004; Ford et al., 2001; Ford et al., 2008; Ford, Woodzicka, Triplett, & Kochersberger, 2013; Ryan & Kanjorski, 1998). Given that exposure to sexist humour has not been comprehensively investigated among women, in Study 2 we sought to test the effects of sexist joke exposure among women. To fill this gap in the current body of literature, we employed a between-subjects design where female participants were exposed to only one type of joke before assessing outcomes such as proximal joke reactions and prejudice and discrimination against women. That is, we not only tested the effects of aggressive (sexist) versus neutral joke exposure on joke amusement and inoffensiveness, but expanded the scope to consider effects on self-objectification, negative bias effects against women (i.e., prejudice against women, willingness to discriminate against women, and support for women’s rights), and prejudice against other marginalized outgroups. Importantly, given that Study 1 revealed few differences in how variables such as hostile sexism and cavalier humour beliefs predicted aggressive versus belittling joke reactions, we decided to focus solely on aggressive jokes as our sexist joke condition in Study 2.

In the sections below, we detail the existing research on sexist humour exposure (primarily among men) followed by a rationale for our moderation models.

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7 We intended to test a third joke condition involving objectifying sexist jokes. However, a one-way ANOVA testing mean differences in hostile sexism by each joke condition revealed that pre-test hostile sexism was significantly higher in the objectifying (M =2.89, SD =.95) versus neutral (M =2.59, SD =.87) joke condition (p =.034). In contrast, those in the aggressive condition (2.79, .95) did not score significantly higher in pre-test sexism than those in the neutral condition (p =.301). Therefore, despite random assignment to conditions, the objectifying joke condition was associated with higher pre-test levels of hostile sexism, illustrating a failure of randomization. To preserve internal validity, we dropped the objectifying joke condition and instead focused on aggressive versus neutral jokes as the predictor of outcomes.
Sexist Humour Exposure Among Women

To our knowledge, the first study to experimentally examine women’s responses to sexist humour was conducted by LaFrance and Woodzicka (1998). The researchers randomly assigned 60 women to hear audiotapes of either sexist jokes (i.e., seven jokes disparaging women) or non-sexist jokes (i.e., seven jokes disparaging attorneys); before joke exposure, hostile sexism and ingroup identification were measured. Two independent raters coded women’s facial expressions for seven seconds after the audiotape ended. After joke exposure, the researchers measured outcomes such as joke amusement and negative affect. The researchers found that women who heard sexist (vs. non-sexist) jokes reported less joke amusement and more feelings of disgust, anger, hostility, and surprise. Women exposed to sexist (vs. non-sexist) jokes also exhibited more eye rolling and touched their faces more frequently. Critically, women higher (vs. lower) in hostile sexism reported greater sexist joke amusement and reacted to sexist jokes with more genuine (i.e., Duchenne) smiling. In contrast, women higher (vs. lower) in ingroup identification were less amused by the sexist jokes. Results from this study suggest that women overall are negatively affected by sexist jokes and react to them with disdain and disapproval; however, women who endorse greater hostile sexism are more pleased with sexist jokes. Importantly, findings from this study suggest that women’s reactions to sexist humour depend on their relative endorsement of hierarchy-enhancing ideologies. As opposed to using a pure neutral control condition, however, the control condition in their study involved jokes about lawyers, a group toward which disparaging jokes are generally supported by society, and a group that is stereotypically comprised of men. This feature undermines confidence in the interpretation of how women react to sexist jokes relative to “control” jokes, making our study and the use of a purely neutral control condition an important contribution.
Effects of Sexist Jokes on Ratings of Joke Amusement and Inoffensiveness

There are two main reasons to suspect that women would overall react with lower amusement and inoffensiveness in response to sexist (vs. neutral) joke exposure. First, in Study 1 we found that women overall rated sexist (but not neutral) jokes as unamusing and offensive. Second, as detailed above, LaFrance and Woodzicka (1998) show preliminary evidence that women overall respond to sexist (vs. non-sexist) jokes with lower amusement and greater negative affect. Accordingly, in Study 2, we sought to experimentally replicate these findings, proposing that exposure to aggressive (vs. neutral) jokes leads to lower joke amusement and inoffensiveness ratings. This prediction is also consistent with Social Identity Theory wherein individuals desire positive group distinctiveness and thus are displeased with jokes disparaging their group. In other words, given the tendency for individuals to favour their ingroup, women may overall be unimpressed by anti-female jokes, signaling that they do not support sexist jokes and find them to be harmful.

Importantly, Study 1 demonstrated the relevance of hostile sexism or cavalier humour beliefs with respect to women’s sexist joke reactions. Specifically, women higher (vs. lower) in hostile sexism or cavalier humour beliefs displayed greater sexist joke amusement and inoffensiveness. Moreover, as mentioned above, LaFrance and Woodzicka showed that women higher (vs. lower) in hostile sexism reported greater joke amusement in response to sexist jokes. Accordingly, we expected women higher in hostile sexism or cavalier humour beliefs to exhibit greater amusement and inoffensiveness ratings to sexist jokes. Central to hostile sexism is an antagonistic view regarding women as inferior to men. In theory, therefore, women endorsing this view would be more likely to enjoy, and take less offense to, jokes that demean women. Cavalier humour beliefs, although not distinctly prejudice-relevant, represent the notion that
jokes are harmless; accordingly, women endorsing cavalier humour beliefs are theoretically more likely to enjoy sexist jokes and less likely to be offended by them. Critically, given the importance of these individual difference variables in refining women’s joke reactions, we expected that the overall negative effects of aggressive (vs. neutral) joke exposure on joke amusement and inoffensiveness would be weaker among women endorsing greater hostile sexism or cavalier humour beliefs. We also considered whether ingroup identification moderates the effects of aggressive joke exposure on lower joke amusement and inoffensiveness. Consistent with Social Identity Theory and research by LaFrance and Woodzicka (1998), we predicted that the negative effects of aggressive joke exposure on joke amusement and inoffensiveness would be weaker among women identifying less (vs. more) with their ingroup. Conversely, women identifying more with their ingroup were expected to be more unimpressed by jokes disparaging their ingroup. To summarize, we expected that women endorsing greater hostile sexism, greater cavalier humour beliefs, or lower ingroup identification would be less likely to exhibit resistance in response to sexist jokes.

**Effects of Sexist Jokes on Self-Objectification**

In addition to examining proximal joke reactions, we asked whether sexist humour – which portrays women as sexual objects – has the potential to affect the way in which women view themselves. The sexual objectification of women is widespread across cultures (Bartky, 1990; Fardouly, Diedrichs, Vartanian, & Halliwell, 2015; Vandenbosch, Muise, Eggermonet, & Impett, 2015). According to Bartky (1990), sexual objectification occurs when a woman’s (sexual) parts are removed from her person and considered to represent her. Common examples of sexual objectification include the “male gaze” (i.e., when men leer at women’s body parts), sexually objectifying media content, sexual harassment, and lewd comments (Fardouly et al.,
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2015; Vandenbosch et al., 2015). Fredrickson and Roberts (1997) originally proposed Objectification Theory to empirically test the effects of internalizing this third person perspective of one’s body. According to Objectification Theory, sexual objectification leads women to internalize a view of themselves in which they treat themselves as objects to be evaluated by others. The internalization of an observer’s perspective is called *self-objectification* and is represented by body surveillance -- the persistent monitoring of one’s physical appearance (Fredrickson & Roberts, 1997). Extensive research has shown that self-objectification and body surveillance promote negative outcomes including greater body shame, appearance anxiety, depression, disordered eating, sexual dysfunction, and poorer well-being (see Calogero, Tantleff-Dunn, & Thompson, 2011 or Moradi & Huang, 2008 for reviews).

Surprisingly, almost no research has explored whether sexist humour encourages women to self-objectify. Much like harassment or sexual leering, sexist humour involves reducing women to objects to be used enjoyment of others. That is, aggressive jokes depict women as passive objects (devoid of thoughts, feelings, and agency) that men can abuse. Given the objectifying content of aggressive jokes, exposure to sexist jokes may therefore cause women to internalize a third-person perspective of themselves wherein they self-objectify. In other words, consistent with Objectification Theory, if sexist humour sexually objectifies women, then women would be more likely to self-objectify in response to sexist (vs. neutral) joke exposure. To the best of our knowledge, only Ford and colleagues (2015) have experimentally investigated the possibility that sexist humour leads women to self-objectify. In their Study 1, the researchers found that women who watched sexist or anti-women (vs. neutral) joke clips experienced greater self-objectification. In contrast, for men, self-objectification levels were low and did not differ between sexist versus neutral joke conditions. In Study 2, the researchers found that women who
viewed sexist (vs. neutral) joke clips subsequently reported greater body surveillance. Thus, preliminary evidence suggests that sexist humour promotes self-objectification among women.

Further investigation of sexist humour and self-objectification is clearly warranted. Given the ubiquity of sexist jokes, and the negative impact of self-objectification on women’s health and well-being (mentioned above), understanding sexist humour as a trigger of self-objectification is important. Consistent with Ford and colleagues (2015), we proposed that women exposed to aggressive (vs. neutral) jokes would be more likely to self-objectify. We also considered whether hostile sexism or cavalier humour beliefs would moderate the effect of aggressive joke exposure on self-objectification. Individuals who endorse hierarchy-enhancing ideologies (e.g., hostile sexism) tend to show conflicted views of their own groups (Jost et al., 2004) and express more prejudice against their ingroup (see Hoffarth & Hodson, 2014). Given that self-objectification may be a self-prejudice related to gender-specific system justification (see Calogero, 2013; Calogero & Tylka, 2014), we proposed that women higher in hostile sexism or cavalier humour beliefs may be more likely to self-objectify. Accordingly, we also expected that the positive effect of aggressive (vs. neutral) joke exposure on self-objectification might be stronger among women higher (vs. lower) in hostile sexism or cavalier humour beliefs.

Ingroup identification might also moderate the effect of aggressive jokes on self-objectification. Women who identify more with their gender are more likely to participate in political activism related to gender inequality (Kelly & Breinlinger, 1995), suggesting that highly identified women are more likely to demonstrate (group-level) resistance to sexist events. Relatedly, women who highly identify with their gender are less likely to distance themselves from discrimination aimed at their group (Hodson & Esses, 2002). Accordingly, women who consider being a woman central to their social identity might be particularly less likely to self-
objectify after exposure to sexist jokes. That is, women who identify strongly with their ingroup are expected to resist the negative representation of women in sexist jokes and thus self-objectify to a lesser degree.

**Effects of Sexist Jokes on Anti-Women Biases**

Few experimental studies have examined the prejudice-related outcomes of sexist humour exposure among women (e.g., Ford, 2000). Among men, however, the prejudice-related effects of sexist humour have been thoroughly investigated. Consistent with Prejudiced Norm Theory (Ford & Ferguson, 2004), which outlines that sexist humour can facilitate the expression of prejudice against women, research has shown that after exposure to sexist (vs. neutral) humour, men higher in hostile sexism are more likely to accept gender inequality in society (Ford et al., 2013), display a willingness to discriminate against women (Ford et al., 2008), tolerate sexist events (Ford, 2000), accept rape myths (Ryan & Kanjorski, 1998), and demonstrate rape proclivity (Romero-Sanchez et al., 2010). That is, for men who are particularly antagonistic toward women prior to humour exposure, sexist (but not neutral) humour releases their prejudice and discrimination against women (see Ford & Ferguson, 2004; Ford et al., 2008). In other words, sexist humour exposure among men has deleterious anti-women effects that actively perpetuate sexism.

Can sexist humour exposure also release anti-women biases among women? Although women likely overall resist sexist humour, we considered the possibility that, under specific circumstances, sexist humour could nonetheless release women’s prejudice and discrimination against their ingroup. After all, individuals from disadvantaged social groups can be ambivalent toward their ingroup (e.g., Overbeck et al., 2004), and ambivalence often has a strong negative component (see Hoffarth & Hodson, 2014). Consistent with Prejudiced Norm Theory, we
proposed that sexist humour can release prejudice and discrimination among women, particularly among women higher in hostile sexism. This prediction is also consistent with System Justification Theory (Jost & Andrews, 2011; Jost & Banaji, 1994; Jost et al., 2004), which outlines that individuals who endorse hierarchy-enhancing ideologies tend to accept and justify group-based hierarchies even if they disadvantage their ingroup (possibly for reasons such as psychological stability, etc.); consequently, women endorsing hierarchy-enhancing ideologies such as hostile sexism may be more likely to release biases against their ingroup. Indeed, women higher in hostile sexism are more likely to tolerate sexual harassment against women after sexist joke exposure (Ford, 2000) and endorse negative attitudes and stereotypes about women (Glick & Fiske, 1996). Moreover, exposure to sexist jokes fuels more self-objectification among women (Ford et al., 2015), meaning that sexist jokes may similarly promote more anti-women biases among women. Thus, when exposed to aggressive (vs. neutral) jokes, women endorsing greater hostile sexism might express prejudice and discrimination against women and lower support for women’s rights (see also Hodson et al., 2010). In contrast, lower status group members with lower hierarchy-enhancing ideologies resist hierarchical social arrangements and display ingroup favouritism (Jost et al., 2004; Sidanius & Pratto, 1999). Thus, among women lower in hostile sexism, sexist humour it not expected to release prejudice and discrimination against women.

Like hostile sexism, cavalier humour beliefs might also moderate the release of prejudice and discrimination against women in response to sexist (vs. neutral) humour. Although cavalier humour beliefs are outside the realm of prejudice, they may enable individuals to “brush off” the negative intergroup qualities of jokes. That is, believing “jokes are just jokes” likely

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8 As a proxy measure of discrimination, we measured willingness to discriminate against women by asking women to indicate the extent to which they found five discriminatory situations acceptable on a scale from 1 = not acceptable to 7 = completely acceptable. Henceforth, when referring to discrimination against women, we mean willingness to discriminate against women.
accommodates the view that sexist jokes are socially acceptable. Research shows that cavalier humour beliefs are associated with predictors of prejudice including SDO and hostile sexism (e.g., see our Study 1; see also Hodson et al., 2010), suggesting that prejudice-prone individuals are more likely to adopt cavalier humour beliefs. Accordingly, cavalier humour beliefs likely facilitate expressions of dominance (Hodson et al., 2010) and may release women’s biases against their ingroup in a humour context. As such, we predicted that women exposed to sexist (vs. neutral) jokes could be more likely to express prejudice against women to the extent that they pass off jokes as “just jokes.”

The Justification-Suppression Model of Prejudice (Crandall & Eshleman, 2003) is also relevant to understanding how the endorsement of greater hostile sexism or cavalier humour beliefs might release prejudice and discrimination in a humour context (see Hodson et al., 2010). In contemporary society, intergroup biases are inhibited and often expressed in more opportune moments. Joke-telling is an optimal outlet for releasing prejudice because it is a socially sanctioned method of communicating bias – it is ambiguous (i.e., individuals do not necessarily know the joker teller’s intention) and contains positive aspects such as eliciting laughter. Thus, for women endorsing greater hostile sexism or cavalier humour beliefs, a humour context might be an opportune context to release their prejudice and discrimination (see also Ford & Ferguson, 2004 for specific mediating mechanisms).

Identification with one’s ingroup might also affect women’s expression of anti-women biases following sexist joke exposure. According to Social Identity Theory, highly identified ingroup members feel more positively about their group membership (Tajfel & Turner, 1986). In the present context, sexist humour presents a threat to women’s image; thus, highly identified group members might be more likely to demonstrate collective (group-level) resistance.
Accordingly, women lower (vs. higher) in ingroup identification might be more (vs. less) likely to express prejudice and discrimination against women following exposure to sexist humour. Conversely, women identifying strongly with their group might be less likely to express anti-women biases in response to sexist humour.

**Effects of Sexist Jokes on Marginalized Outgroup Favourability**

A robust finding in the prejudice field is that of *generalized prejudice*, or the tendency for individuals high in one prejudice to generalize their prejudice across marginalized outgroup targets (e.g., Altemeyer, 1996; Bergh, Akrami, Sidanius, & Sibley, 2016; Hodson, MacInnis, & Busseri, 2017). In this vein, in addition to predicting negative ingroup biases, women’s endorsement of hostile sexism might predict less favourable attitudes toward other marginalized outgroups such as homosexual/LGBTQ group members, Blacks, Aboriginals/First Nations, Muslims, the disabled, illegal immigrants, the mentally ill, and the homeless. Accordingly, we proposed that among women higher (vs. lower) in hostile sexism, aggressive (vs. neutral) joke exposure could lead to lower marginalized outgroup favourability. In other words, given the tendency for prejudices to be positively associated, sexist humour might have the potential to affect attitudes toward other marginalized groups despite specifically disparaging women. Moreover, given that those with nonchalant views about humour are more likely to release prejudice in a humour context (Hodson et al., 2010), we proposed that cavalier humour beliefs would likewise moderate the relation between sexist joke exposure and prejudice against marginalized outgroups. That is, to the extent that women perceive jokes to be “just jokes”, they may be more likely to express their biases against multiple outgroups that are not associated with the disparaging jokes. Further consistent with the notion of generalized prejudice, among women lower in ingroup identification sexist (vs. neutral) joke exposure might also reduce marginalized outgroup favourability.
Overview and Hypotheses

The purpose of Study 2 was to explore the experimental effects of sexist joke exposure among women. To date, little research has investigated women’s responses to sexist humour in an experimental context, making the present study imperative. In Study 2, female participants were randomly assigned to either an aggressive joke condition or a neutral joke condition. Overall, in accordance with Social Identity Theory (Tajfel & Turner, 1979, 1986) and findings by LaFrance and Woodzicka (1998) and our Study 1, we predicted that women exposed to aggressive (vs. control) jokes would express lower joke amusement and inoffensiveness ratings. However, given that hostile sexism or cavalier humour beliefs predict favourable sexist joke reactions, we expected that the effects of aggressive joke exposure on lower joke amusement and inoffensiveness ratings would be weaker among women higher (vs. lower) in hostile sexism or cavalier humour beliefs. Because individuals who identify more strongly with their ingroup display warmer feelings toward their group (Tajfel & Turner, 1986), we also expected that the effects of aggressive jokes on lower joke amusement and inoffensiveness ratings would be weaker among women lower (vs. higher) in ingroup identification. In other words, women were expected to overall react unfavourably to jokes disparaging their ingroup, but to a lesser degree to the extent that they endorsed greater hostile sexism or cavalier humour beliefs or lower ingroup identification. Such women, we predict, will be less likely to resist the jokes (and hence more likely to internalize their harmful effects).

In addition to examining proximal joke reactions, we predicted that sexist joke exposure also has the potential to trigger self-objectification, or an unfavourable view of oneself as an object (Ford et al., 2015). That is, aggressive jokes encourage women to see themselves the way in which they are portrayed – as objects rather than whole human beings (Bartky, 1990;
Accordingly, we hypothesized that aggressive (vs. neutral) joke exposure would lead to greater self-objectification. Given that hostile sexism, cavalier humour beliefs, or ingroup identification were expected to predict self-objectification, we hypothesized that the effect of aggressive joke exposure on self-objectification would be stronger among women higher hostile sexism or cavalier humour beliefs or lower in ingroup identification. Importantly, because self-objectification upholds rather than dismantles the sexual objectification system (e.g., Calogero & Tylka, 2014), women who self-objectify (inadvertently) internalize and maintain sexism in society.

Scant research has examined the prejudice-related effects of sexist humour exposure among women. Although women may reject sexist jokes by reacting unfavourably, we considered the possibility that sexist humour could release women’s prejudice and discrimination against their ingroup, and perhaps even against other marginalized outgroups. Individuals from disadvantaged social groups endorsing hierarchy-enhancing ideologies can be ambivalent toward their ingroup (e.g., Overbeck et al., 2004) and therefore might also express negative biases (see also Hoffarth & Hodson, 2014). Thus, consistent with Prejudiced Norm Theory, and with research on generalized prejudice and past findings on self-objectification following sexist joke exposure, we proposed that sexist humour might release prejudice and discrimination against women, decrease women’s rights support, and produce unfavourable attitudes toward marginalized outgroups, particularly among women higher in hostile sexism or cavalier humour beliefs or lower in ingroup identification. In this way, sexist humour might facilitate the perpetuation of social inequality through increased prejudice and discrimination against women and other marginalized outgroups. In the proposed study, we outline four main hypotheses (refer to Figure 7):
H1: Exposure to aggressive (vs. neutral) jokes will predict lower joke amusement and inoffensiveness; the effects of aggressive jokes on lower joke amusement and inoffensiveness will be weaker (vs. stronger) among women higher (vs. lower) in hostile sexism or cavalier humour beliefs, or lower in ingroup identification.

H2: Exposure to aggressive (vs. neutral) jokes will predict higher prejudice toward women, discrimination against women, and lower support for women’s rights, particularly among women higher (vs. lower) in hostile sexism or cavalier humour beliefs or lower in ingroup identification.

H3: Exposure to aggressive (vs. neutral) jokes will predict lower marginalized outgroup favourability, particularly among women higher (vs. lower) in hostile sexism or cavalier humour beliefs or lower in ingroup identification.

H4: Exposure to aggressive (vs. neutral) jokes will lead to higher self-objectification; the effect of aggressive joke exposure on self-objectification will be stronger (vs. weaker) among women higher (vs. lower) in hostile sexism or cavalier humour beliefs or lower in ingroup identification.
Figure 7. Conceptual moderation model whereby the effects of aggressive (vs. neutral) joke exposure on proximal joke reactions and negative intergroup outcomes are moderated by hostile sexism, cavalier humour beliefs, or ingroup identification.
Study 2 Methodology

Participants and Procedure

Data were initially collected from 343 female participants recruited and tested at Brock University (Canada). Of these 343 participants, data from two participants were deleted because one person self-identified as male and another wrote that they did not understand the jokes given that English was not their first language. After further dropping the objectifying joke condition (refer to Footnote #7), the final sample included 226 female participants (100%) with a mean age of 20.05 ($SD = 4.07$), 68.1% of whom identified as White, 6.2% as Black, 5.3% as East Asian, 9.3% as South Asian, 2.2% as Aboriginal, 2.2% as Middle Eastern, 4.0% as Hispanic, and 4.4% who identified as another race. In terms of sexual orientation, 85.8% of participants identified as heterosexual, 1.3% as homosexual, 9.3% as bisexual, 1.3% as asexual, 0.9% who did not know, and 1.8% who specified another sexual orientation (e.g., demisexual, pansexual, biromantic demisexual, panromantic demisexual). Most participants identified as undergraduate students; 57.1% reported being in first year of university, 19.0% in second year, 6.2% in third year, 11.9% in fourth year, and 4.0% in fifth year; 1.3% said other (e.g., 6th year, graduate student, transfer student) and one person preferred not to say.

Participants were recruited via SONA; interested participants read our study advertisement titled “Jokes and Humour Ratings” and signed up to participate. Participants came into the laboratory and completed all tasks on a computer via a Qualtrics survey link. After indicating consent, participants filled out individual difference measures (i.e., pre-test measures) including hostile sexism, cavalier humour beliefs, and ingroup identification, in a randomized order. After, participants were randomly assigned to one of the two following joke conditions: aggressive jokes or neutral jokes (i.e., control condition). Subsequently, participants filled out a
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manipulation check, followed by measures of joke amusement and inoffensiveness. Participants then filled out the following measures in a randomized order: self-objectification, discrimination against women, modern sexism, support for women’s rights, and feeling thermometers toward multiple groups. After, participants completed a demographics form followed by a suspicion check. At the end, participants read a debriefing form and were verbally debriefed as to the purposes of the study. Upon completion, participants received either half a research participation credit or $5.

Measures

Pre-test measures. Measures of hostile sexism and cavalier humour beliefs were identical to those in Study 1. After reverse coding, higher averaged scores indicated higher levels of hostile sexism ($\alpha$ = .86) and cavalier humour beliefs ($\alpha$ = .79). Ingroup identification was measured using a three-item measure using women as the referent social category (Hodson, Harry, & Mitchell, 2009). Participants were asked to indicate their level of agreement or disagreement with items on a scale from 1 = not at all to 7 = very much so. Items included: “To what extent is being a woman an important part of your identity?”, “To what extent do you feel that you have a lot in common with women?”, and “To what extent do you have a strong sense of attachment to women as a social group?”. Higher averaged scores indicated higher levels of ingroup identification ($\alpha$ = .78).

Joke manipulation. Participants were randomly assigned to one of the following two joke conditions: the aggressive joke condition or the non-sexist/neutral (i.e., control) joke condition. Aggressive and neutral jokes were identical to those in Study 1 (see Appendix C). Participants were provided with context prior to joke exposure. Specifically, participants were given the following instructions: “Imagine you are sitting in a train. You overhear two men
telling each other the following jokes and they laugh.” We choose to specifically instruct participants to imagine two men to increase the saliency of an ingroup-outgroup divide for those exposed to sexist jokes. Immediately following joke exposure, participants completed a manipulation check.

**Manipulation check.** Following the manipulation, participants completed two items to assess whether the stimuli manipulated the appropriate reactions from participants (Appendix F). Sexist jokes are characterized by aggressiveness and the objectification of women (Woodzicka, 1998). Participants rated the extent to which the jokes collectively were objectifying (i.e., reduced women to their body parts for the pleasure of others) or aggressive on scales from 1 = *not at all* to 9 = *extremely*. We expected that the distinct nature of the joke categories would be demonstrated if participants indicated that the aggressive jokes were higher in objectifying or aggressive qualities than the neutral jokes. That is, such ratings would demonstrate that our manipulation had the intended effect.

**Amusement and inoffensiveness ratings.** After joke exposure, participants rated the degree to which the jokes collectively were amusing or inoffensive on scales from 1 = *not at all* to 9 = *extremely*.

**Self-objectification.** Self-objectification was measured using Lindner and Tantleff-Dunn’s (2017) 14-item Self-Objectification Beliefs and Behaviours Scale (Appendix K). Items were rated on a scale from 1 = *strongly disagree* to 5 = *strongly agree*. Example items included “I try to imagine what my body looks like to others (i.e., like I am looking at myself from the outside),” “My physical appearance says more about who I am than my intellect,” and “My body is what gives me value to other people.” Scores were created by averaging participants’ responses. Higher averaged scores indicated higher levels of self-objectification (α=.92).
**Willingness to discriminate against women.** We developed five items to assess willingness to discriminate against women (Appendix I). Participants were asked to indicate the extent to which they found each situation acceptable on a scale from 1 = *not acceptable* to 7 = *completely acceptable*. Example items include the following: “An employer denies Mary a leadership role because he considers women too emotional,” “Emma, a Member of Parliament, receives daily comments in the media about the clothing she wears,” and “Patricia’s boss denies her a promotion because he worries that her children take priority over her work.” Scores were created by averaging participants’ responses to the items. Higher averaged scores indicated higher willingness to discriminate against women (α = .71).

**Modern sexism.** To measure prejudice against women, the eight-item Modern Sexism Scale (Swim et al., 1995) was administered (Appendix G). Participants were asked to indicate their level of disagreement or agreement with items on a scale from 1 = *strongly disagree* to 7 = *strongly agree*. The scale measures the following three aspects of modern sexism: denial of discrimination against women (e.g., “Over the past few years, the government and news media have been showing more concern about the treatment of women than is warranted by women’s actual experiences.”), hostility toward women’s demands for equity (e.g., “Discrimination against women is no longer a problem in Canada.”), and resentment about women’s “special favours” (e.g., “It is easy to understand why women’s groups are still concerned about societal limitations of women’s opportunities” – Reverse scored). Scores were created by averaging participants’ responses to the items. After reverse coding, higher averaged scores indicated higher levels of modern sexism (α = .81).

**Support for women’s rights.** We developed five items to tap support for women’s rights (Appendix H). Participants were asked to indicate their level of disagreement or agreement with
each item on a scale from 1 = *strongly disagree* to 7 = *strongly agree*. Example items include the following: “Women deserve to be paid the same as men for equivalent work,” “Women have the right to not be catcalled (e.g., whistled at by men),” and “Women deserve the same rights as men.” Scores were created by averaging participants’ responses to items. Higher averaged scores indicated higher levels of support for women’s rights ($\alpha = .63$).

**Feeling thermometers.** Feeling thermometers were administered to assess participants’ explicit feelings about specific social groups (Appendix J). Participants were asked to select a position on each thermometer to indicate their attitude toward the specific group; numerical labels were marked at 10º intervals starting from 0º (*cold or unfavourable*) to 100º (*warm or favourable*). Groups included the following: homosexual/LGBTQ members, Blacks, Aboriginals/First Nations, Muslims, the disabled, illegal immigrants, the mentally ill, and the homeless. Scores were created by averaging participants’ responses across groups. Higher averaged scores indicated more favourable attitudes toward marginalized outgroups ($\alpha = .94$).

**Demographics.** To assess sample characteristics, participants were asked to report demographic information such as age, sexual orientation, ethnicity, and year and major in university (if applicable). No personally identifying information was collected.

**Suspicion check.** To determine whether participants recognized the purpose of the study, they were asked to respond to four open-ended items such as “Can you guess what the study was about?” and “Did anything about the study make you suspicious? If yes, please elaborate” (Appendix L). No participants accurately guessed the hypotheses or goals of the study.
Study 2 Results

Tests of Assumptions

Examination of all variables revealed the following 18 outliers: two scores greater than three SDs above the mean on modern sexism, three scores greater than three SDs below the mean on support for women’s rights, four scores more than three SDs above the mean on willingness to discriminate against women, six scores greater than three SDs below the mean on favourable attitudes toward marginalized outgroups, and three scores greater than three standard deviations below the mean on ingroup identification. These scores were winsorized (i.e., converted to the value at three SDs above the mean).

Before proceeding with our regression analyses, we checked that statistical assumptions were met. To evaluate assumptions of linearity and homoscedasticity, zpred and zresid plots were examined. Linearity and homoscedasticity for most regression analyses was met given that the predicted values and residuals for most variables were random and there were no funnel shapes (however, support for women’s rights showed some deviations). To evaluate the assumption of independence, Durbin-Watson values were examined. Independence for all regression analyses was met given that all values fell within the acceptable range of 1.72 and 2.08. To evaluate the assumption of normality, p-P plots and histograms were examined. The p-Plots for most regression analyses were normal as most points clustered along the diagonal line for each outcome variable except for support for women’s rights, which deviated considerably. Almost all histograms were normal given that frequencies tended to be high in the centre of the distributions and lower toward the extremes. That is, most skewness and kurtosis values neared zero; however, the histogram for support for women’s rights was negatively skewed ($G_1=-1.97$) and the peak ($Z_{rg^2}=3.54$) was taller and narrower. Although the distribution for support for
women’s rights did not meet the assumption of normality, as in Study 1, this is of minimal concern given the Central Limit Theorem (see Study 1 for details).

Most variables contained complete data from all 226 participants, except for modern sexism (\(N = 225\)), willingness to discriminate against women (\(N = 225\)), favourable attitudes toward marginalized outgroups (\(N = 223\)), self-objectification (\(N = 225\)), and hostile sexism (\(N = 220\)); in other words, missing data were minimal (i.e., less than 5% for each variable). Consistent with Study 1, we employed Expectation Maximization to deal with missing data.

**Manipulation Check**

Before proceeding with our model tests, we first assessed whether our manipulation had the desired effect by conducting two independent samples \(t\)-tests. The first \(t\)-test examined whether aggressive relative to neutral jokes induced objectifying ratings (i.e., the perception that the jokes reduced women to objects). The second \(t\)-test examined whether aggressive relative to neutral jokes induced ratings of aggressiveness (i.e., the perception that the jokes were aggressive in nature). As expected, the objectifying rating was significantly higher in the aggressive joke condition (\(M = 7.57, SD = 2.02\)) than in the neutral joke condition (\(M = 1.20, SD = .60\)), \(t(224) = 31.99, p < .001, d = 4.27\) (see Figure 8). Also as expected, the aggressiveness rating was significantly higher in the aggressive joke condition (\(M = 8.33, SD = 1.28\)) than in the neutral joke condition (\(M = 1.25, SD = .70\)), \(t(224) = 51.40, p < .001, d = 6.86\) (see Figure 9). Overall, the results from our manipulation check suggest that the experimental conditions produced the intended effects with aggressive jokes being considered substantially more objectifying and aggressive toward women than the neutral jokes. That is, the aggressive jokes were indeed considered sexist in nature relative to the neutral jokes (see Woodzicka, 1998).
Figure 8. Mean differences in the extent to which jokes were considered objectifying by joke type (standard error bars: 95% CI).
Figure 9. Mean differences in in the extent to which jokes were considered aggressive by joke type (standard error bars: 95% CI).

Preliminary Analyses

Zero-order correlations among variables. As observed in Table 1, there was an effect of aggressive (vs. neutral) joke exposure on lower joke amusement and inoffensiveness. Consistent with experimental randomization, there were no effects of aggressive jokes on pre-test levels of hostile sexism or cavalier humour beliefs. Partly as expected, there was an effect of aggressive jokes on greater self-objectification, but there were no overall effects of aggressive joke exposure on discrimination against women, modern sexism, support for women’s rights, or marginalized outgroup favourability. Also as predicted, higher joke amusement was associated with higher joke inoffensiveness ratings, discrimination against women, modern sexism, lower
self-objectification, and greater hostile sexism and cavalier humour beliefs. Higher joke inoffensiveness was associated with lower self-objectification and higher cavalier humour beliefs. Greater willingness to discriminate against women was associated with higher modern sexism, lower support for women’s rights, lower marginalized outgroup favourability, and higher hostile sexism and cavalier humour beliefs. Higher modern sexism was associated with lower support for women’s rights, lower marginalized outgroup favourability (consistent with research on generalized prejudice; Hodson et al., 2017) and lower ingroup identification, and with higher hostile sexism and cavalier humour beliefs. Further, higher support for women’s rights was associated with higher marginalized outgroup favourability, and with lower hostile sexism and cavalier humour beliefs. Higher marginalized outgroup favourability was associated with lower hostile sexism, lower cavalier humour beliefs, and higher ingroup identification. As predicted, higher self-objectification was associated with higher hostile sexism and cavalier humour beliefs. As expected and consistent with Study 1, higher hostile sexism was associated with higher cavalier humour beliefs. For the magnitude of relations refer to Table 3.
Table 3

Means, standard deviations, and zero-order correlations among variables (Study 2)

<table>
<thead>
<tr>
<th></th>
<th>Mean (SD)</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
<th>11</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Aggressive (vs. neutral) Jokes</td>
<td></td>
<td>-.49***</td>
<td>-.82***</td>
<td>.08</td>
<td>.05</td>
<td>-.12</td>
<td>.15*</td>
<td>.11</td>
<td>.04</td>
<td>-.04</td>
<td></td>
</tr>
<tr>
<td>2. Joke Amusement</td>
<td>4.02 (2.68)</td>
<td>.65***</td>
<td>.14*</td>
<td>.14*</td>
<td>-.12</td>
<td>-.05</td>
<td>-.13*</td>
<td>.17**</td>
<td>.27***</td>
<td>-.10</td>
<td></td>
</tr>
<tr>
<td>3. Joke Inoffensiveness</td>
<td>5.95 (3.50)</td>
<td>.05</td>
<td>.12</td>
<td>-.02</td>
<td>.04</td>
<td>-.17**</td>
<td>.06</td>
<td>.17**</td>
<td>-.07</td>
<td></td>
<td></td>
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<tr>
<td>4. Discrimination Against Women</td>
<td>2.06 (.93)</td>
<td></td>
<td>.43***</td>
<td>-.41***</td>
<td>-.37***</td>
<td>.10</td>
<td>.44***</td>
<td>.26***</td>
<td>-.02</td>
<td></td>
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<tr>
<td>5. Modern Sexism</td>
<td>2.46 (.93)</td>
<td></td>
<td></td>
<td>-.34***</td>
<td>-.25***</td>
<td>.00</td>
<td>.61***</td>
<td>.33***</td>
<td>-.13*</td>
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<tr>
<td>6. Support for Women’s Rights</td>
<td>6.77 (.39)</td>
<td></td>
<td></td>
<td>.39***</td>
<td>-.11</td>
<td>-.38***</td>
<td>-.14*</td>
<td>.12</td>
<td></td>
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<tr>
<td>7. Marginalized Outgroups</td>
<td>81.20 (15.59)</td>
<td></td>
<td></td>
<td>-.11</td>
<td>-.38***</td>
<td>-.16**</td>
<td>.15*</td>
<td>.12</td>
<td></td>
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<tr>
<td>8. Self-Objectification</td>
<td>2.68 (.83)</td>
<td></td>
<td></td>
<td></td>
<td>.15*</td>
<td>.18**</td>
<td>.01</td>
<td></td>
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<tr>
<td>9. Hostile Sexism</td>
<td>2.69 (.91)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>.48***</td>
<td>-.05</td>
<td></td>
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<tr>
<td>10. Cavalier Humour Beliefs</td>
<td>4.21 (1.08)</td>
<td></td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td>-.04</td>
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<tr>
<td>11. Ingroup Identification</td>
<td>5.82 (.99)</td>
<td></td>
<td></td>
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Note. N = 226. * p < .05, ** p < .01, *** p < .001. Aggressive (vs. neutral) Jokes = aggressive sexist jokes (coded 1) compared against neutral jokes (coded -1). Marginalized Outgroups = favourable attitudes toward marginalized outgroups.
Primary Analyses

Test of moderation models. To test our hypotheses, separate moderation analyses were conducted using Model 1 in PROCESS software (Hayes, 2013). See Figure 10 for an overview of the statistical model employed. We entered the predictor [i.e., aggressive joke exposure (coded 1) versus neutral joke exposure (coded -1)], one moderator, and one outcome at a time in each analysis. Moderators were mean-centred in PROCESS before the analyses were conducted. Significant interactions were probed at 1SD above the mean, at the mean, and 1SD below the mean of each moderator; the Johnson-Neyman technique was also employed to more specifically identify the continuous point(s) along the moderators where an effect transitions between being statistically significant to nonsignificant or vice versa. In separate moderation analyses, we entered aggressive (vs. neutral) joke exposure as the focal predictor and hostile sexism, cavalier humour beliefs, or ingroup identification as the moderator; joke amusement, joke inoffensiveness, self-objectification, willingness to discriminate against women, modern sexism, support for women’s rights, and marginalized outgroup favourability were individually entered as dependent variables in separate analyses. Parameter estimates (unstandardized) and significance tests were based on bias-corrected estimates generated from 1000 bootstrap samples.
Figure 10. Statistical moderation model (Model 1 in PROCESS): aggressive (vs. neutral) joke exposure is expected to significantly predict unfavourable joke reactions and negatively-valenced intergroup outcomes ($X \rightarrow Y$); hostile sexism, cavalier humour beliefs, or ingroup identification will significantly predict joke reactions and negative intergroup outcomes ($W \rightarrow Y$); the interactions between hostile sexism, cavalier humour beliefs, or ingroup identification with aggressive jokes are expected to significantly predict outcomes ($X \times W \rightarrow Y$). CHB = Cavalier humour beliefs. Ingroup ID = Ingroup identification.

**Moderation models testing proximal joke reactions as outcomes.**

**Joke amusement (with hostile sexism as moderator).** Consistent with expectations, aggressive (vs. neutral) joke exposure significantly predicted lower joke amusement, $b = -2.76$ (95% CI: -3.35, -2.17), $t(222) = -9.24$, $p < .001$. Moreover, greater hostile sexism significantly predicted greater joke amusement, $b = .62$ (95% CI: .29, .94), $t(222) = 3.75$, $p < .001$. Also as expected, the interaction between aggressive (vs. neutral) jokes and hostile sexism significantly predicted joke amusement [$b = .96$ (95% CI: .31, 1.61), $t(222) = 2.92$, $p = .004$], with the effect of aggressive joke exposure on lower joke amusement being significantly weaker at higher levels of hostile sexism (i.e., $+1$ SD), $b = -1.88$ (95% CI: -2.72, -1.04), $t(222) = -4.42$, $p < .001$, relatively
stronger at moderate levels of hostile sexism (i.e., at the mean), $b = -2.76$ (95% CI: -3.35, -2.17), $t(222) = -9.24$, $p < .001$, and strongest at lower levels of hostile sexism (i.e., -1 SD), $b = -3.64$ (95% CI: -4.47, -2.81), $t(222) = -8.63$, $p < .001$. Figure 11 illustrates the moderated effect. The Johnson-Neyman technique showed that there was a significant effect of aggressive jokes on lower joke amusement for hostile sexism scores of 4.3 and lower.

Figure 11. The effect of aggressive joke exposure (coded 1) (vs. neutral joke exposure; coded -1) on mean joke amusement moderated by hostile sexism.
Joke amusement (with cavalier humour beliefs as moderator). As predicted, aggressive (vs. neutral) joke exposure significantly predicted lower joke amusement, $b = -2.70$ (95% CI: -3.26, -2.13), $t(222) = -9.42$, $p < .001$. Consistent with expectations, greater cavalier humour beliefs significantly predicted greater joke amusement, $b = .73$ (95% CI: .47, .99), $t(222) = 5.52$, $p < .001$. Also as expected, the interaction between aggressive (vs. neutral) jokes and cavalier humour beliefs significantly predicted joke amusement [$b = 1.00$ (95% CI: .48, 1.52), $t(222) = 3.77$, $p < .001$], with the effect of aggressive joke exposure on lower joke amusement weaker at higher levels of cavalier humour beliefs, $b = -1.61$ (95% CI: -2.41, -.82), $t(222) = -3.98$, $p < .001$, relatively stronger at moderate levels of cavalier humour beliefs, $b = -2.70$ (95% CI: -3.26, -2.13), $t(222) = -9.42$, $p < .001$, and strongest at lower levels of cavalier humour beliefs, $b = -3.78$ (95% CI: -4.58, -2.98), $t(222) = -9.33$, $p < .001$. Figure 12 illustrates the moderated effect. The Johnson-Neyman technique showed that there was a significant effect of aggressive jokes on lower joke amusement for cavalier humour belief scores of 5.87 and lower.
Figure 12. The effect of aggressive joke exposure (coded 1) (vs. neutral joke exposure; coded -1) on mean joke amusement moderated by cavalier humour beliefs (CHB).

Joke amusement (with ingroup identification as moderator). As predicted, aggressive (vs. neutral) joke exposure significantly predicted lower joke amusement, $b = -1.33$ (95% CI: -1.64, -1.03), $t(222) = -8.71, p < .001$. Consistent with expectations, greater ingroup identification significantly predicted lower joke amusement, $b = -0.34$ (95% CI: -0.65, -0.04), $t(222) = -2.20, p = .029$. Also as expected, the interaction between aggressive (vs. neutral) jokes and ingroup identification significantly predicted joke amusement [$b = -0.36$ (95% CI: -0.67, -0.06), $t(222) = -2.35, p = .020$], with the effect of aggressive joke exposure on lower joke amusement being
weaker at lower levels of ingroup identification, $b = -.97$ (95% CI: -1.40, -0.54), $t(222) = -4.49$, $p < .001$, relatively stronger at moderate levels of ingroup identification, $b = -1.33$ (95% CI: -1.64, -1.03), $t(222) = -8.71$, $p < .001$, and strongest at higher levels of ingroup identification, $b = -1.69$ (95% CI: -2.12, -1.27), $t(222) = -7.82$, $p < .001$. Figure 13 illustrates the moderated effect. The Johnson-Neyman technique showed that there was a significant effect of aggressive jokes on lower joke amusement for ingroup identification scores of 3.94 and higher.

![Graph](image.png)

*Figure 13.* The effect of aggressive joke exposure (coded 1) (vs. neutral joke exposure; coded -1) on mean joke amusement moderated by ingroup identification.
Joke inoffensiveness (with hostile sexism as moderator). As predicted, aggressive (vs. neutral) joke exposure significantly predicted lower joke inoffensiveness, $b = -5.85$ (95% CI: -6.34, -5.36), $t(222) = -23.48$, $p < .001$. Greater hostile sexism significantly predicted greater joke inoffensiveness, $b = .54$ (95% CI: .27, .81), $t(222) = 3.96$, $p < .001$. Also as expected, the interaction between aggressive (vs. neutral) jokes and hostile sexism significantly predicted joke inoffensiveness [$b = 1.18$ (95% CI: .64, 1.72), $t(222) = 4.29$, $p < .001$], with the effect of aggressive joke exposure on lower joke inoffensiveness weaker at higher levels of hostile sexism, $b = -4.78$ (95% CI: -5.48, -4.07), $t(222) = -13.42$, $p < .001$, relatively stronger at moderate levels of hostile sexism, $b = -5.85$ (95% CI: -6.34, -5.36), $t(222) = -23.48$, $p < .001$, and strongest at lower levels of hostile sexism, $b = -6.93$ (95% CI: -7.62, -6.23), $t(222) = -19.70$, $p < .001$. See Figure 13 for an illustration of the moderated effect. The Johnson-Neyman technique revealed no statistical transition points within the observed range of hostile sexism.
Figure 14. The effect of aggressive joke exposure (coded 1) (vs. neutral joke exposure; coded -1) on mean joke inoffensiveness moderated by hostile sexism.

Joke inoffensiveness (with cavalier humour beliefs as moderator). As predicted, aggressive (vs. neutral) joke exposure significantly predicted lower joke inoffensiveness, $b = -5.79$ (95% CI: -6.26, -5.33), $t(222) = -24.38, p < .001$. As expected, greater cavalier humour beliefs significantly predicted greater joke inoffensiveness, $b = .65$ (95% CI: .43, .87), $t(222) = 5.92, p < .001$. Also as predicted, the interaction between aggressive (vs. neutral) jokes and cavalier humour beliefs significantly predicted joke inoffensiveness [$b = 1.13$ (95% CI: .69, 1.56), $t(222) = 5.12, p < .001$], with the effect of aggressive joke exposure on lower joke inoffensiveness weaker at higher levels of cavalier humour beliefs, $b = -4.58$ (95% CI: -5.24, -
3.91), $t(222) = -13.60$, $p < .001$, relatively stronger at moderate levels of cavalier humour beliefs, $b = -5.79$ (95% CI: -6.26, -5.33), $t(222) = -24.38$, $p < .001$, and strongest at lower levels of cavalier humour beliefs, $b = -7.01$ (95% CI: -7.68, -6.35), $t(222) = -20.84$, $p < .001$. See Figure 14 for an illustration of the moderated effect. The Johnson-Neyman technique revealed no statistical transition points within the observed range of cavalier humour beliefs.

*Figure 15.* The effect of aggressive joke exposure (coded 1) (vs. neutral joke exposure; coded -1) on mean joke inoffensiveness moderated by cavalier humour beliefs.
Joke inoffensiveness (with ingroup identification as moderator). As predicted, aggressive (vs. neutral) joke exposure significantly predicted lower joke inoffensiveness, $b = -2.89$ (95% CI: -3.14, -2.63), $t(222) = -22.24, p < .001$. Consistent with expectations, greater ingroup identification significantly predicted lower joke inoffensiveness, $b = -.37$ (95% CI: -.63, -.12), $t(222) = -2.86, p = .005$. Also as expected, the interaction between aggressive (vs. neutral) jokes and ingroup identification significantly predicted joke inoffensiveness [$b = -.33$ (95% CI: -.59, -.07), $t(222) = -2.53, p = .012$], with the effect of aggressive joke exposure on lower joke inoffensiveness weaker at lower levels of ingroup identification, $b = -2.56$ (95% CI: -2.92, -2.20), $t(222) = -13.92, p < .001$, relatively stronger at moderate levels of ingroup identification, $b = -2.89$ (95% CI: -3.14, -2.63), $t(222) = -22.24, p < .001$, and strongest at higher levels of ingroup identification, $b = -3.22$ (95% CI: -3.58, -2.85), $t(222) = -17.51, p < .001$. Figure 13 illustrates the moderated effect. The Johnson-Neyman technique revealed no statistical transition points within the observed range of ingroup identification.
Figure 16. The effect of aggressive joke exposure (coded 1) (vs. neutral joke exposure; coded -1) on mean joke inoffensiveness moderated by ingroup identification.

**Moderation models testing self-objectification as an outcome.**

**Self-objectification (with hostile sexism as moderator).** As expected, aggressive (vs. neutral) joke exposure significantly predicted greater self-objectification, $b = .23$ (95% CI: .01, .44), $t(222) = -2.08, p = .039$. Also as predicted, greater hostile sexism significantly predicted higher self-objectification, $b = .13$ (95% CI: .01, .24), $t(222) = 2.09, p = .038$. Unexpectedly, the interaction between aggressive (vs. neutral) jokes and hostile sexism did not predict self-objectification, $b = -.05$ (95% CI: -.29, .19), $t(222) = .39, p = .696$. 
Self-objectification (with cavalier humour beliefs as moderator). Aggressive (vs. neutral) joke exposure significantly predicted higher self-objectification, $b = .24$ (95% CI: .03, .46), $t(222) = -2.24$, $p = .026$. Greater cavalier humour beliefs significantly predicted higher self-objectification, $b = .13$ (95% CI: .03, .23), $t(222) = 2.62$, $p = .009$. However, the interaction between aggressive (vs. neutral) jokes and cavalier humour beliefs did not predict self-objectification, $b = .01$ (95% CI: -.19, .20), $t(222) = -0.07$, $p = .945$.

Self-objectification (with ingroup identification as moderator). Aggressive (vs. neutral) joke exposure significantly predicted higher self-objectification, $b = .13$ (95% CI: .02, .24), $t(222) = 2.33$, $p = .021$. Ingroup identification did not predict self-objectification, $b = .02$ (95% CI: -.09, .13), $t(222) = .30$, $p = .763$. Further, the interaction between aggressive (vs. neutral) jokes and ingroup identification did not predict self-objectification, $b = .02$ (95% CI: -.09, .13), $t(222) = .33$, $p = .740$.

Moderation models testing negative biases against women as outcomes.

Discrimination against women (with hostile sexism as moderator). Aggressive (vs. neutral) joke exposure did not predict discrimination against women, $b = .06$ (95% CI: -.16, .28), $t(222) = .56$, $p = .577$. As expected, greater hostile sexism significantly predicted greater discrimination against women, $b = .43$ (95% CI: .31, .56), $t(222) = 7.02$, $p < .001$. Also as expected, the interaction between aggressive (vs. neutral) jokes and hostile sexism (marginally) predicted discrimination against women, $b = .24$ (95% CI: .00, .48), $t(222) = 1.93$, $p = .054$; although the effect of aggressive joke exposure on greater discrimination against women was marginally significant at higher levels of hostile sexism, $b = .28$ (95% CI: -.03, .60), $t(222) = 1.76$, $p = .080$, and not significant at moderate levels of hostile sexism, $b = .06$ (95% CI: -.16, .28), $t(222) = .56$, $p = .577$, or at lower levels of hostile sexism [$b = -.16$ (95% CI: -.47, .16),...
\( t(222) = -.98, \ p = .325 \) (refer to Figure 15), the Johnson-Neyman technique showed that there was a significant positive effect of aggressive jokes on discrimination against women for hostile sexism scores of 4.5 and higher (i.e., among extremely prejudiced women).

Figure 17. The effect of aggressive joke exposure (coded 1) (vs. neutral joke exposure; coded -1) on mean discrimination against women moderated by hostile sexism.

**Discrimination against women (with cavalier humour beliefs as moderator).** Aggressive (vs. neutral) joke exposure did not predict discrimination against women, \( b = .13 \) (95% CI: -.10, .37), \( t(222) = 1.11, \ p = .267 \). As expected, greater cavalier humour beliefs significantly predicted greater discrimination against women, \( b = .22 \) (95% CI: .11, .33), \( t(222) = 4.06, \ p < .001 \). As expected, the interaction between aggressive (vs. neutral) jokes and cavalier humour beliefs
significantly predicted discrimination against women \( b = .30 \) \((95\% \text{ CI}: .08, .52), t(222) = 2.73, p = .007\), with a significant positive effect of aggressive joke exposure on discrimination against women among women higher in cavalier humour beliefs, \( b = .46 \) \((95\% \text{ CI}: .13, .79), t(222) = 2.72, p = .007\), but no effect among women at moderate levels of cavalier humour beliefs, \( b = .13 \) \((95\% \text{ CI}: -.10, .37), t(222) = 1.11, p = .267\), or at lower in cavalier humour beliefs, \( b = -.19 \) \((95\% \text{ CI}: -.52, .14), t(222) = -1.15, p = .251\). Figure 16 illustrates the moderated effect. The Johnson-Neyman technique showed that there was a significant positive effect of aggressive jokes on discrimination against women for cavalier humour belief scores of 4.6 and higher.\(^9\)

\(^9\) Although there was no effect at 1SD below the mean of cavalier humour beliefs, interestingly, the Johnson-Neyman technique showed that there was a negative effect of aggressive joke exposure on discrimination against women for cavalier humour belief scores of 2 and lower.
Figure 18. The effect of aggressive joke exposure (coded 1) (vs. neutral joke exposure; coded -1) on mean discrimination against women moderated by cavalier humour beliefs (CHB).

Discrimination against women (with ingroup identification as moderator). Aggressive (vs. neutral) joke exposure did not predict discrimination against women, $b = .07$ (95% CI: -.05, .20), $t(222) = 1.16, p = .245$. Ingroup identification also did not predict discrimination against women, $b = -.02$ (95% CI: -.15, .10), $t(222) = -.34, p = .734$. Further, the interaction between aggressive (vs. neutral) jokes and ingroup identification did not predict discrimination against women, $b = -.07$ (95% CI: -.20, .05), $t(222) = -1.14, p = .253$.

Modern sexism (with hostile sexism as moderator). Aggressive (vs. neutral) joke exposure did not predict modern sexism, $b = -.03$ (95% CI: -.22, .17), $t(222) = -.29, p = .768$. As
expected, greater hostile sexism significantly predicted greater modern sexism, $b = .62$ (95% CI: .51, .73), $t(222) = 11.41$, $p < .001$. Unexpectedly, the interaction between aggressive (vs. neutral) jokes and hostile sexism did not predict modern sexism, $b = .16$ (95% CI: -.06, .37), $t(222) = 1.43$, $p = .115$.

*Modern sexism (with cavalier humour beliefs as moderator).* Aggressive (vs. neutral) joke exposure did not predict modern sexism, $b = .07$ (95% CI: -.16, .30), $t(222) = .62$, $p = .532$. Consistent with expectations, greater cavalier humour beliefs significantly predicted greater modern sexism, $b = .29$ (95% CI: .18, .40), $t(222) = 5.36$, $p < .001$. As expected, the interaction between aggressive (vs. neutral) jokes and cavalier humour beliefs significantly predicted modern sexism [$b = .22$ (95% CI: .01, .43), $t(222) = 2.02$, $p = .045$], with a (marginally) significant positive effect of aggressive joke exposure on modern sexism at higher levels of cavalier humour beliefs, $b = .31$ (95% CI: -.02, .63), $t(222) = 1.87$, $p = .063$, but no effect present at moderate levels of cavalier humour beliefs, $b = .07$ (95% CI: -.16, .30), $t(222) = .62$, $p = .532$, or at lower levels of cavalier humour beliefs, $b = -.16$ (95% CI: -.49, .16), $t(222) = -.99$, $p = .325$. Figure 17 illustrates the moderated effect. Critically, the Johnson-Neyman technique showed that there was a significant effect of aggressive jokes on greater modern sexism for cavalier humour belief scores of 5.57 and higher.
Figure 19. The effect of aggressive joke exposure (coded 1) (vs. neutral joke exposure; coded -1) on mean modern sexism moderated by cavalier humour beliefs (CHB).

Modem sexism (with ingroup identification as moderator). Aggressive (vs. neutral) joke exposure did not predict modern sexism, $b = .04$ (95% CI: -.08, .16), $t(222) = .70, p = .485$. Greater ingroup identification significantly predicted lower modern sexism, $b = -.12$ (95% CI: -.25, -.001), $t(222) = -1.98, p = .049$. The interaction between aggressive (vs. neutral) jokes and ingroup identification did not predict modern sexism, $b = -.11$ (95% CI: -.23, .02), $t(222) = -1.71, p = .088$. 
Support for women’s rights (with hostile sexism as moderator). Aggressive (vs. neutral) joke exposure did not predict women’s right support, $b = .00$ (95% CI: -.10, .10), $t(222) = .00$, $p = .996$. As expected, greater hostile sexism significantly predicted lower women’s rights support, $b = -.16$ (95% CI: -.22, -.11), $t(222) = -6.10$, $p < .001$. The interaction between aggressive (vs. neutral) jokes and hostile sexism did not predict women’s rights support, $b = -.01$ (95% CI: -.11, .10), $t(222) = -.11$, $p = .912$.

Support for women’s rights (with cavalier humour beliefs as moderator). Aggressive (vs. neutral) joke exposure did not predict women’s right support, $b = -.03$ (95% CI: -.13, .07), $t(222) = -.57$, $p = .569$. As expected, greater cavalier humour beliefs significantly predicted lower women’s rights support, $b = -.05$ (95% CI: -.10, -.002), $t(222) = -2.07$, $p = .039$. The interaction between aggressive (vs. neutral) jokes and cavalier humour beliefs did not predict women’s rights support, $b = -.07$ (95% CI: -.16, .02), $t(222) = -1.46$, $p = .145$.

Support for women’s rights (with ingroup identification as moderator). Aggressive (vs. neutral) joke exposure did not predict support for women’s rights, $b = -.01$ (95% CI: -.07, .04), $t(222) = -.56$, $p = .573$. Ingroup identification also did not predict support for women’s rights, $b = .05$ (95% CI: -.01, .10), $t(222) = 1.73$, $p = .086$. Further, the interaction between aggressive (vs. neutral) jokes and ingroup identification did not predict support for women’s rights, $b = .00$ (95% CI: -.05, .05), $t(222) = -.06$, $p = .951$.

Moderation models testing marginalized outgroup favourability as an outcome.

Marginalized outgroup favourability (with hostile sexism as moderator). Aggressive (vs. neutral) joke exposure did not predict marginalized outgroup favourability, $b = -2.36$ (95% CI: -6.17, 1.46), $t(222) = -1.22$, $p = .224$. As expected, greater hostile sexism significantly predicted lower marginalized outgroup favourability, $b = -6.24$ (95% CI: -8.35, -4.14), $t(222) = -5.85$, $p$
The interaction between aggressive (vs. neutral) jokes and hostile sexism did not predict marginalized outgroup favourability, \( b = -1.49 \) (95% CI: -5.70, 2.72), \( t(222) = -0.70, p = .486 \).

**Marginalized outgroup favourability (with cavalier humour beliefs as moderator).**

Aggressive (vs. neutral) joke exposure did not predict marginalized outgroup favourability, \( b = -3.43 \) (95% CI: -7.47, .60), \( t(222) = -1.68, p = .095 \). As expected, greater cavalier humour beliefs significantly predicted lower marginalized outgroup favourability, \( b = -2.30 \) (95% CI: -4.17, - .44), \( t(222) = -2.43, p = .016 \). The interaction between aggressive (vs. neutral) jokes and cavalier humour beliefs did not predict marginalized outgroup favourability, \( b = -1.18 \) (95% CI: -4.92, 2.55), \( t(222) = -0.62, p = .533 \).

**Marginalized outgroup favourability (with ingroup identification as moderator).**

Aggressive (vs. neutral) joke exposure did not predict marginalized outgroup favourability, \( b = -1.75 \) (95% CI: -3.79, .28), \( t(222) = -1.70, p = .091 \). However, greater ingroup identification significantly predicted higher marginalized outgroup favourability, \( b = 2.34 \) (95% CI: .27, 4.40), \( t(222) = 2.23, p = .027 \). The interaction between aggressive (vs. neutral) jokes and ingroup identification did not predict marginalized outgroup favourability, \( b = 1.05 \) (95% CI: -3.00, 1.13), \( t(222) = -0.89, p = .375 \).

### Study 2 Discussion

Given that exposure to sexist humour has not been comprehensively investigated among women, the purpose of Study 2 was to directly test the effects of sexist joke exposure among women. We randomly assigned women to either an aggressive joke condition or a neutral joke condition, and subsequently tested joke amusement and inoffensiveness ratings, self-objectification, negative biases against women, and marginalized outgroup favourability. Given that hostile sexism or cavalier humour beliefs have been found to predict favourable reactions to
sexist humour (e.g., LaFrance & Woodzicka, 1998; Hodson et al., 2010), we tested whether pre-test levels of hostile sexism or cavalier humour beliefs moderated the effects of sexist (vs. neutral) joke exposure.

**Effects of Sexist Jokes on Ratings of Joke Amusement and Inoffensiveness**

Results from Study 2 mainly confirmed our hypotheses. Women exposed to aggressive (vs. control) jokes reported lower joke amusement and inoffensiveness ratings. That is, our sample of university-educated women overall rejected sexist communications. These findings are consistent with Social Identity Theory (Tajfel & Turner, 1986) (and our Study 1; see also LaFrance & Woodzicka, 1998), specifically the rationale that people exposed to humour disparaging their ingroup react unfavourably given that their ingroup is being negatively compared with respect to the outgroup. In effect, lower joke amusement and inoffensiveness ratings in response to sexist jokes signaled that women did not support sexist jokes and considered them to be harmful.

Although Study 2 demonstrated that women overall are unamused and offended in response to sexist humour, an examination of individual differences revealed varied reactions to sexist humour. Study 2 demonstrated that the effects of aggressive (vs. neutral) humour exposure on lower joke amusement and inoffensiveness were weaker for women scoring higher in hostile sexism or cavalier humour beliefs, or lower in ingroup identification. These results are consistent with findings from our Study 1 and LaFrance and Woodzicka (1998), wherein endorsement of greater hostile sexism predicted higher sexist joke amusement, and ingroup identification predicted lower sexist joke amusement. Given that hostile sexism encompasses the view that women are inferior to men, it is logical that women endorsing greater hostile sexism would be less likely to react unfavourably to jokes disparaging women; that is, they may enjoy the sexist
joke content to a greater degree. Similarly, because cavalier humour beliefs represent the notion that jokes are “just jokes,” women endorsing greater cavalier humour beliefs likely consider most humour to be harmless and therefore are less likely to react unfavourably to sexist jokes. Moreover, individuals who identify more with their ingroup display warmer feelings toward their group (e.g., Tajfel & Turner, 1986). Consistent with this finding, women who identified less with their ingroup were less likely to exhibit joke amusement and inoffensiveness in response to sexist (vs. neutral) jokes. In sum, women endorsing greater hostile sexism or cavalier humour beliefs or lower ingroup identification were less likely to reject humour disparaging their ingroup.

**Effects of Sexist Jokes on Self-Objectification**

Almost no research has explored whether sexist humour encourages women to self-objectify (see Ford et al., 2015 for an exception). According to Objectification Theory (Fredrickson & Roberts, 1997), sexual objectification persuades women to internalize a view of themselves in which they treat themselves as objects to be evaluated by others. The internalization of an observer’s perspective is called self-objectification (Fredrickson & Roberts, 1997) and much research has shown that self-objectification fosters negative outcomes including greater body shame, appearance anxiety, depression, disordered eating, sexual dysfunction, and poorer well-being (see Calogero et al., 2011 for a review). Much like harassment or sexual leering, sexist jokes depict women as passive objects devoid of thoughts, feelings, and agency. Hence, given the objectifying content of aggressive jokes, we predicted that exposure to aggressive (vs. neutral) jokes would cause women to internalize a third-person perspective of themselves wherein they self-objectify. Consistent with our prediction, women exposed to aggressive (vs. neutral) jokes were more likely to self-objectify or see themselves as objects to be
used by others (Fredrickson & Roberts, 1997). This finding replicates research by Ford et al. (2015) wherein exposure to sexist (vs. non-sexist) joke video clips led to increased self-objectification among women. Although situated in a humour context, sexist jokes are not innocuous in their potential to encourage women to self-objectify and ultimately contribute to poor mental health outcomes.

We considered whether hostile sexism, cavalier humour beliefs, or ingroup identification would moderate the effect of aggressive joke exposure on self-objectification. Individuals who endorse hierarchy-enhancing ideologies (e.g., hostile sexism or cavalier humour beliefs) show conflicted views of their own groups (Jost et al., 2004) and exhibit more prejudice against their ingroup (see Hoffarth & Hodson, 2014). Given that self-objectification may be a self-prejudice related to gender-specific system justification (see Calogero, 2013; Calogero & Tylka, 2014), we anticipated that the effect of aggressive joke exposure on greater self-objectification would be strengthened among women higher in hostile sexism or cavalier humour beliefs. Although women higher in hostile sexism or cavalier humour beliefs were more likely to self-objectify, there was no significant interaction effect between aggressive joke exposure and hostile sexism or cavalier humour beliefs on self-objectification. Moreover, although women who more strongly identify with their ingroup feel warmer toward their group (e.g., Tajfel & Turner, 1986) and participate in political activism related to gender inequality (Kelly & Breinlinger, 1995), there was no significant interaction effect between aggressive joke exposure and ingroup identification on self-objectification. In other words, individual differences did not influence the

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10 We note the possibility that the manipulation check, which involved participants rating the extent to which jokes were considered objectifying, might have contributed to the effect of aggressive joke exposure on increased self-objectification. Nonetheless, between condition differences emerged, suggesting that relative to neutral jokes, aggressive jokes uniquely increased self-objectification levels. However, future research could more directly examine if this manipulation check plays a role in predicting objectification.
tendency for women to self-objectify after sexist joke exposure. This suggests that regardless of whether women endorse hierarchy-enhancing ideologies or identify with their ingroup, aggressive joke exposure promotes self-objectification among women, ultimately functioning to maintain the sexual objectification system (see Calogero & Tylka, 2014).

**Effects of Sexist Jokes on Anti-Women Biases**

Little experimental research has examined the prejudice-related outcomes of sexist humour exposure among women (e.g., Ford, 2000). Critically, in Study 2, we found that among women higher (but not lower) in hostile sexism or cavalier humour beliefs aggressive (vs. neutral) joke exposure predicted a greater willingness to discriminate against women.\(^\text{11}\) These findings are consistent with Prejudiced Norm Theory (Ford & Ferguson, 2004) and past research (see Ford, 2000; Romero-Sanchez et al., 2010; Ryan & Kanjorski, 1998) wherein sexist humour facilitated the expression of prejudice against women, particularly for men higher in hostile sexism. That is, we show that women – like men – can release discrimination against women to the extent that they endorse greater sexist beliefs. Interestingly, the endorsement of greater cavalier humour beliefs, completely removed from prejudice or ideology, functioned like hostile sexism to release women’s discrimination against women. In this regard, believing that jokes are “just jokes” is likely a cover for prejudice expression (see Hodson et al., 2010). In contrast, there was no interaction effect of aggressive jokes and ingroup identification on discrimination against women, suggesting that ingroup identification is not a relevant moderator in the present context.

\(^{11}\) Recall that there was no zero-order correlation between aggressive joke exposure and discrimination against women; this moderation pattern explains why given that the effects are opposite at higher versus lower levels of hostile sexism or cavalier humour beliefs, thereby canceling each other out.
Moreover, among women higher (but not lower) in cavalier humour beliefs, aggressive (vs. neutral) joke exposure predicted greater modern sexism.\textsuperscript{12} Of note, only the endorsement of greater cavalier humour beliefs (not hostile sexism or ingroup identification) enabled women to release their prejudice against women. These findings are also consistent with Prejudiced Norm Theory (Ford & Ferguson, 2004), wherein sexist humour facilitates the expression of prejudice against women, in this case among women higher in cavalier humour beliefs. That is, our study demonstrated that women release prejudice against women to the extent that they are more dismissive about jokes.

Unexpectedly, there were no significant interaction effects of aggressive humour exposure and hostile sexism, cavalier humour beliefs, or ingroup identification on women’s rights support. We originally expected that among women higher (but not lower) in hostile sexism or cavalier humour beliefs or lower in ingroup identification, aggressive (vs. neutral) humour would release lower women’s rights support, consistent with the other negative bias effects against women. However, an outcome such as women’s rights is likely so important to preserve that even women higher in hostile sexism or cavalier humour beliefs or lower in ingroup identification would not express lower support after sexist joke exposure. After all, women endorsing greater antagonism against their ingroup or cavalier beliefs about humour or who are less identified with their group likely still wish to maintain their basic human rights given that they belong to the group they disparage.

Ultimately, consistent with the Justification-Suppression Model of Prejudice (Crandall & Eshleman, 2003), women endorsing greater hostile sexism or cavalier humour beliefs felt

\textsuperscript{12} There was no zero-order correlation between aggressive joke exposure and modern sexism; this moderation pattern explains why given that the effects are opposite at higher versus lower levels of cavalier humour beliefs, thereby canceling each other out.
encouraged to release their prejudice and discrimination against women in response to sexist humour. That is, in contemporary society, joke-telling is an optimal outlet for releasing prejudice because it is a socially sanctioned method and opportune context for expressing bias.

Effects of Sexist Jokes on Marginalized Outgroup Favourability

We predicted that sexist humour might also encourage women to release prejudice against other marginalized outgroups, particularly among women higher (but not lower) in hostile sexism or cavalier humour beliefs or lower (but not higher) in ingroup identification. Unexpectedly, there were no significant interaction effects of aggressive (vs. neutral) jokes and hostile sexism, cavalier humour beliefs, or ingroup identification on marginalized outgroup favourability. That is, among women endorsing greater hierarchy-enhancing ideologies or who identified less with their ingroup, exposure to sexist humour did not affect attitudes toward other marginalized groups. However, the fact that hostile sexism or cavalier humour beliefs (as main effects) predicted lower marginalized outgroup favourability is consistent with the empirically established tendency for individuals higher in one prejudice (e.g., hostile sexism) to generalize their prejudice across targets (e.g., Altemeyer, 1996; Bergh et al., 2016; Hodson et al., 2017). Interestingly, cavalier humour beliefs once again served as a hierarchy-enhancing ideology given that, despite being removed from the realm of prejudice, greater endorsement predicted less favourable attitudes toward marginalized outgroup members.

Conclusions

We tested the effects of sexist (vs. neutral) joke exposure on joke amusement and inoffensiveness ratings, self-objectification, negative bias effects against women (including prejudice against women, discrimination against women, and lower support for women’s rights), and prejudice against marginalized outgroups. Consistent with Study 1 and Social Identity
Theory, we found that women overall exhibited lower joke amusement and inoffensiveness ratings in response to sexist versus non-discriminatory jokes. Troublingly, however, the effects of aggressive (vs. neutral) humour exposure on lower joke amusement and inoffensiveness were weaker for women scoring higher in hostile sexism or cavalier humour beliefs or lower in ingroup identification. In other words, although women overall rejected sexist humour, women endorsing greater hostile sexism or cavalier humour beliefs or lower ingroup identification rejected sexist jokes to a lesser degree. In addition to examining proximal joke reactions, we examined whether sexist humour can trigger self-objectification, or an internalized view of oneself as an object. Consistent with predictions, we found that sexist joke exposure triggered self-objectification among women. Moreover, given that little research has examined the prejudice-related consequences of sexist humour exposure among women, we examined when sexist joke exposure releases prejudice and discrimination against women. Consistent with Prejudiced Norm Theory and research testing male participants, we found that among women higher (but not lower) in hostile sexism or cavalier humour beliefs, aggressive (vs. neutral) humour releases prejudice and discrimination against women (but does not affect women’s rights support or marginalized outgroup favourability). These results are consistent with System Justification Theory (e.g., Jost & Andrews, 2011; Jost & Banaji, 1994) outlining that lower-status individuals who endorse hierarchy-enhancing ideologies tend to accept and justify hierarchical intergroup relations, ultimately perpetuating oppressive social systems.

**General Discussion**

In modern Western society, it has become less acceptable to express blatantly sexist attitudes and behaviours (see Spence & Hahn, 1997). Instead, blatantly sexist acts have been replaced by more subtly sexist behaviours such as the use of sexist language or sexist jokes (e.g.,
Sexist jokes, for instance, are commonly expressed in mainstream culture (e.g., Strain et al., 2016), likely because they facilitate expressions of prejudice in a socially acceptable way (see Ford et al., 2008; Hodson & MacInnis, 2016). That is, intergroup jokes might appear playful, but they can satisfy negative intergroup motives and effectively mask prejudice in their ambiguity or presence of other purposes (e.g., social bonding; Martin, 2007).

Recognizing this, researchers have started to empirically explore the impact of sexist humour. One important limitation of the current body of literature, however, is that most research has been conducted with male participants. It is therefore relatively unclear how women react to humour that disparages their ingroup. Accordingly, the present thesis heeded the call of Hodson and MacInnis (2016) to investigate disparaging joke reactions among disadvantaged group members by examining women’s reactions to sexist jokes.

In the present thesis we detailed two empirical studies examining women’s reactions to sexist humour. In Study 1 we examined women’s proximal joke reactions, that is, the extent to which they considered sexist and neutral jokes to be amusing and inoffensiveness; moreover, we examined predictors of women’s favourable reactions to sexist jokes. The purpose of Study 2 was to experimentally examine the effects of aggressive (vs. neutral) joke exposure among women, assessing outcomes such as self-objectification and prejudice and discrimination against women. For a summary of major results, refer to Table 4. In the following sections we review results from both studies and discuss implications, limitations, and future research directions.
### Summary of major thesis results

<table>
<thead>
<tr>
<th></th>
<th>Study 1</th>
<th>Study 2</th>
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<tr>
<td><strong>Study design</strong></td>
<td>Within-subjects design; women (N=225) rated aggressive, belittling, and neutral jokes with respect to joke amusement and inoffensiveness; completed measures of hostile sexism and cavalier humour beliefs</td>
<td>Between-subjects design; women (N=226) completed pre-test measures of hostile sexism, cavalier humour beliefs, and ingroup identification. Randomly assigned to an aggressive (n=114) or neutral joke condition (n=112). After exposure, completed measures of joke amusement and inoffensiveness ratings, self-objectification, negative bias effects against women, and marginalized outgroup favourability</td>
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<tr>
<td><strong>Manipulation</strong></td>
<td>No manipulation</td>
<td>Prior to exposure to either aggressive or neutral jokes, women were given the following instructions: “Imagine you are sitting in a train. You overhear two men telling each other the following jokes and they laugh”</td>
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<tr>
<td><strong>Effects on joke</strong></td>
<td>Overall, the more sexist the jokes (i.e., aggressive &gt; belittling &gt; neutral), the lower the amusement and inoffensiveness ratings. However, hostile sexism or cavalier humour beliefs predicted greater sexist joke amusement and inoffensiveness</td>
<td>Effects of aggressive (vs. neutral) joke exposure on lower joke amusement and inoffensiveness ratings; these effects were weaker among women higher in hostile sexism or cavalier humour beliefs or lower in ingroup identification</td>
</tr>
<tr>
<td><strong>Effect on self-objectification</strong></td>
<td>N/A</td>
<td>Effect of aggressive (vs. neutral) joke exposure on greater self-objectification</td>
</tr>
<tr>
<td><strong>Effect on discrimination against women</strong></td>
<td>N/A</td>
<td>Among women higher (but not lower) in hostile sexism or cavalier humour beliefs, there were effects of aggressive (vs. neutral) joke exposure on increased discrimination against women</td>
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<tr>
<td><strong>Effect on modern sexism</strong></td>
<td>N/A</td>
<td>Among women higher (but not lower) in cavalier humour beliefs, there was an effect of aggressive (vs. neutral) joke exposure on increased modern sexism</td>
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<tr>
<td><strong>Effect on women’s rights support</strong></td>
<td>N/A</td>
<td>No effect</td>
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<tr>
<td><strong>Effect on marginalized outgroup favourability</strong></td>
<td>N/A</td>
<td>No effect</td>
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Study 1 demonstrated that women overall found jokes that demean and belittle women to be unamusing and offensive. In other words, women considered jokes to be less funny and more offensive the more disparaging or sexist their nature (i.e., aggressive jokes in particular). These results are consistent with Social Identity Theory (Tajfel & Turner, 1979, 1989) which posits that people typically prefer and like their ingroup and, accordingly, could appreciate humour that positively (not negatively) distinguishes them from their respective outgroup and alternatively take offense to humour disparaging their ingroup. Indeed, by reacting seriously to sexist jokes and finding them socially unacceptable, women demonstrated a position consistent with resistance. To the extent that reactions of amusement and inoffensiveness signal support for sexist hierarchical relations, reactions of seriousness and offensiveness reflect resistance to male dominance and/or support for more egalitarian relations.

Although women overall reacted unfavourably to sexist jokes, Study 1 showed that hostile sexism or cavalier humour beliefs (but not SDO) were important predictors of favourable reactions to sexist jokes. Specifically, women scoring higher in hostile sexism or cavalier humour beliefs were more likely to be amused and less likely to be offended by sexist jokes than women scoring lower in hostile sexism or cavalier humour beliefs. Thus, just as men higher in hostile sexism are more likely to exhibit amusement and inoffensiveness in response to sexist jokes targeting women (e.g., Greenwood & Isbell, 2002; Thomas & Esses, 2004), we provide additional evidence that women higher in hostile sexism react the same way (replicating Greenwood & Isbell, 2002). Overall our findings are consistent with research showing that lower status individuals who endorse greater hierarchy-enhancing ideologies (e.g., hostile sexism) display outgroup favouritism or ingroup inferiority (Overbeck et al., 2004). Given that no study has investigated cavalier humour beliefs as a predictor of women’s reactions to sexist jokes, our
results are novel and suggest that cavalier humour beliefs are an important predictor of women’s favourable reactions to sexist jokes, comparable to that of hostile sexism (and indeed, were positively correlated with SDO and hostile sexism). Put together then, Study 1 demonstrates that women generally react unfavourably to sexist jokes, but that some women are more likely to show relatively more favourable reactions to sexist jokes – specifically, women who are more antagonistic toward their ingroup or who believe that jokes are “just jokes.” It is these women who “buy into” the disparagement, signaling support for, and harmlessness of, sexist expressions – that is, a position that disadvantages their ingroup.

Study 1 was important for establishing the (most) relevant predictors of favourable reactions to sexist jokes among women. Considering the potential role of hostile sexism or cavalier humour beliefs, in Study 2 we turned to examine the experimental effects of exposure to sexist humour among women. Research has predominantly explored the effects of sexist humour exposure among men, demonstrating that men higher in hostile sexism are more likely to discriminate against women (Ford et al., 2008) and tolerate sexist events (Ford, 2000) after sexist (vs. neutral) joke exposure. We therefore chose to examine the effects of exposure to aggressive versus neutral (non-sexist) jokes among women; we tested the effects of aggressive joke exposure on ratings of joke amusement and inoffensiveness, as well as expanded the scope to consider effects on self-objectification, negative bias effects against women (i.e., prejudice against women, willingness to discriminate against women, and support for women’s rights), and prejudice against other marginalized outgroups. Critically, we considered whether pre-test levels of hostile sexism, cavalier humour beliefs, or ingroup identification moderated the potential effects of sexist joke exposure.
In Study 2 we found that women overall exhibited lower joke amusement and inoffensiveness ratings in response to sexist versus neutral jokes, consistent with Social Identity Theory and our Study 1 findings. Troublingly, however, the effects of aggressive sexist (vs. neutral) humour exposure on lower joke amusement and inoffensiveness were weaker for women scoring higher in hostile sexism or cavalier humour beliefs or lower in ingroup identification. In other words, although women overall rejected sexist humour, women endorsing greater hostile sexism or cavalier humour beliefs or lower ingroup identification rejected sexist jokes to a lesser degree. Women endorsing greater hierarchy-enhancing ideologies therefore express less ingroup resistance in response to sexist communications. That is, despite belonging to the targeted social group, women do not uniformly react to sexist humour content, with some being less likely to resist anti-women messages.

In addition to examining relatively proximal joke reactions, in Study 2 we asked whether sexist humour has the potential to negatively affect the way in which women view themselves, that it, cause women to internalize a third-person perspective of themselves wherein they self-objectify (Fredrickson & Roberts, 1997). Consistent with predictions, we found that aggressive (vs. neutral) joke exposure caused women to self-objectify to a greater degree. Our finding replicates research by Ford et al. (2015) wherein exposure to sexist (vs. non-sexist) joke video clips led to increased self-objectification among women. Our finding suggests that by reducing women to objects to be used by men, sexist humour can encourage women to perceive themselves similarly. Critically, much research has shown that self-objectification ultimately contributes to the development and maintenance of disordered eating, depression, and sexual dysfunction (see Calogero et al., 2011 or Moradi & Huang, 2008 for reviews). Accordingly, sexist humour should not be taken lightly. Although people who endorse hierarchy-enhancing
ideologies show conflicted views of their own groups (Jost et al., 2004) and express more ingroup prejudice (see Hoffarth & Hodson, 2014), hostile sexism, cavalier humour beliefs, or ingroup identification did not moderate the effect of aggressive joke exposure on self-objectification. In other words, regardless of whether women endorsed hostile sexism, cavalier humour beliefs, or ingroup identification, aggressive joke exposure promoted self-objectification among female participants. Critically, self-objectification reinforces rather than dismantles the sexual objectification system (see Calogero & Tylka, 2014); self-objectification is associated with the internalization of beauty ideals, hyper-femininity, and self-sexualizing behaviours (Nowatzki & Morry, 2009; Ward, Seabrook, Manago, & Reed, 2016). In this way, self-objectification in response to sexually objectifying stimuli can preserve rather than reduce gender inequality in society. That is, women who self-objectify may inadvertently “buy into” and hence maintain the sexual objectification system (see Calogero & Tylka, 2014).

We also investigated whether sexist humour can cause women to express prejudice and discrimination against their ingroup. To our knowledge, scant research has examined the prejudice-related consequences of sexist humour exposure among women. Consistent with Prejudiced Norm Theory (Ford & Ferguson, 2004; see also Ford, 2000) and research testing male participants (see Ford, 2000; Romero-Sanchez et al., 2010; Ryan & Kanjorski, 1998), we found that among women higher (but not lower) in hostile sexism or cavalier humour beliefs, aggressive (vs. neutral) humour led to increased tolerance of discrimination against women. Further, among women higher (but not lower) in cavalier humour beliefs, aggressive (vs. neutral) joke exposure predicted greater modern sexism. That is, women released prejudice and discrimination against women to the extent that they endorsed greater sexist beliefs or were dismissive of humour generally. Given that endorsement of greater cavalier humour beliefs
functioned like hostile sexism to release women’s prejudice and discrimination against their ingroup, this suggests that believing that “jokes are just jokes” can provide cover for prejudice expression (see Hodson et al., 2010). Among women higher in hostile sexism or cavalier humour beliefs, or lower in ingroup identification, there were no effects of sexist joke exposure on women’s rights support, likely because such an outcome is critical for women to preserve given the implications for their social group.

To summarize, women overall did not release prejudice and discrimination against women in response to sexist humour; however, those who endorsed higher (but not lower) hostile sexism or cavalier humour beliefs released prejudice and discrimination against their ingroup. It is these women who “bought into” the disparagement and actively perpetuated sexist intergroup relations. In accordance with the Justification-Suppression Model of Prejudice (Crandall & Eshleman, 2003), these women presumably felt encouraged to release their prejudice and discrimination against women in response to sexist humour given that joke-telling is an optimal and opportune outlet for expressing bias (Hodson et al., 2010; see Ford & Ferguson, 2004 for mediating mechanisms). These results are consistent with System Justification Theory (Jost & Andrews, 2011; Jost & Banaji, 1994; Jost et al., 2004) which stipulates that lower-status individuals who endorse hierarchy-enhancing ideologies often accept and justify group-based hierarchies even if they do not benefit their own group (possibly for reasons such as psychological stability, etc.), ultimately perpetuating sexist intergroup relations.

In addition to examining prejudice and discrimination against women, we investigated the impact of sexist humour on marginalized outgroup favourability. Inconsistent with predictions, among women endorsing greater hostile sexism or cavalier humour beliefs, or lower ingroup identification, sexist humour did not affect attitudes toward marginalized outgroups.
This suggests that humour effects do not generalize outside targeted social groups, at least in terms of short term exposure of the sort employed in the present study. However, consistent with the tendency for prejudices to be positively associated (e.g., Altemeyer, 1996; Bergh et al., 2016; Hodson et al., 2017), greater endorsement of hostile sexism or cavalier humour beliefs predicted lower marginalized outgroup favourability. This is of specific interest given that cavalier humour beliefs are removed from the realm of prejudice and yet, like hostile sexism, predicted less favourable attitudes toward marginalized outgroup members. This implies that the endorsement of cavalier humour beliefs is not entirely harmless or inconsequential, given that such beliefs do in fact predict prejudice against multiple marginalized groups.

Study 2 demonstrated that women’s reactions to sexist humour are varied. Women respond overall unfavourably to sexist humour and do not release biases against their ingroup (or other marginalized outgroups). However, women who endorse greater hostile sexism or cavalier humour beliefs are less likely to react unfavourably to sexist humour and, instead, release prejudice and discrimination against their ingroup. In other words, women who endorse greater hierarchy-enhancing ideologies behave in ways consistent to men endorsing greater sexist beliefs. Importantly, irrespective of the endorsement of hierarchy-enhancing ideologies, sexist humour encouraged women to self-objectify. Accordingly, then, sexist humour is harmful in its potential to generate negative bias effects against women and in its ability to harm women’s mental health.

The findings from Studies 1 and 2 clearly demonstrate how the person and the situation can influence attitudes and behaviours. For most women the situation (i.e., sexist humour) produced a uniform effect for attitudes (e.g., lower joke amusement/inoffensiveness ratings, etc.) and behaviour (no discrimination against women). However, individual difference variables such
as hostile sexism or cavalier humour beliefs predicted women’s greater joke amusement and inoffensiveness ratings and facilitated the release of prejudice and discrimination against women following exposure to sexist jokes. Here, what the person brought to the situation was critical in terms of predicting how they responded to the stimuli shown to all participants. Importantly, our studies demonstrate that attitudes and behaviour can be best understood by taking the situation and the person into account (see Hodson, 2009; Hodson, Costello, & MacInnis, 2013; Hodson & Dhont, 2015).

Not only is the person-situation approach useful for predicting behaviour, it is also beneficial in terms of informing interventions for prejudice reduction. One prejudice reduction approach, rooted in Social Identity Theory, is called recategorization. Recategorization involves replacing former intergroup boundaries with one single inclusive boundary (see Gaertner & Dovidio, 2005). Research shows that recategorization reduces intergroup bias and increases prosocial behaviour (e.g., Dovidio et al., 1997). Given that a third of men in workplace settings tell sexist jokes (Patel, Griggs, & Miller, 2017), future studies could investigate whether fostering a team identity (i.e., focusing less on intergroup boundaries between men and women) can reduce workplace sexist communications and, consequently, associated negative bias effects against women. Another possible approach includes instilling social and cultural norms in institutional and workplace settings to reduce the tolerance for sexist jokes and other forms of sexual harassment against women. Consistent with the Justification-Suppression Model of Prejudice and Prejudiced Norm Theory, research shows that individuals higher in prejudice tend not to express biases when social sanctions are in place (see Crandall, Eshleman, & O’Brien, 2002; Ford & Ferguson, 2004). Therefore, instilling anti-harassment norms in institutional settings might reduce the expression of sexist jokes and subsequent negative bias effects. Indeed,
workplace interventions instilling norms against sexual harassment can effectively reduce the frequency of sexually harassing behaviours including inappropriate jokes (see Hunt, Davidson, Fielden, & Hoel, 2010). Future research could explore whether the presence (vs. absence) of anti-sexual harassment norms can inhibit the expression of men’s and women’s prejudice and discrimination in response to sexist humour. In accordance with the Justification-Suppression Model of Prejudice and Prejudiced Norm Theory, it is likely that people endorsing greater hostile sexism or cavalier humour beliefs would inhibit the release of prejudice and discrimination in a sexist joke condition preceded by anti-sexual harassment norms relative to a sexist joke condition with no such norms. Ultimately, social norms might be useful for reducing the expression of sexist jokes as well as to disrupt the harmful effects of sexist joke exposure.

**Limitations and Future Directions**

The present thesis has several limitations. First, the extent to which these findings generalize to community samples of women is unknown. Our samples involved relatively young university-educated women, with little experience of discrimination in the workplace relative to adult women from the community. Accordingly, it is unclear whether non-university-educated women from the community overall resist sexist jokes to the same degree as university-educated women. Relative to adults from the community, university students become less prejudiced with higher education levels (Henrich, Heine, & Norenzayan, 2010; Henry, 2008; Hodson & Busseri, 2012); moreover, university students from disadvantaged social groups (e.g., Blacks, women) tend to display warmer feelings toward their ingroup than do disadvantaged individuals from the community (Henry, 2008). Accordingly, it is possible that adult women from the community are more likely to endorse hostile sexism or cavalier humour beliefs, and therefore more likely to demonstrate negative bias effects in response to sexist humour. To assess the generalizability of
the current findings, future research could investigate the effects of sexist joke exposure in a community sample of adult women; these results could then be used for direct comparison.

Second, it is unknown the extent to which the current findings generalize to settings outside of the laboratory. That is, in most cases of sexist joke exposure, individuals are not merely reading jokes but rather are hearing jokes as they interact with others. Although less feasible, it may be fruitful to examine women’s reactions, verbal and nonverbal, in response to sexist humour in more natural settings. Doing so may more fully capture the impact of sexist humour exposure among women. For instance, it is possible that the presence and reactions of others may affect the way in which women respond to sexist jokes; if others are laughing, women may feel pressure to laugh, even if they feel anxious or uncomfortable (see Wood & Niedenthal, 2018). This would make it appear as if women support sexist jokes, thereby reinforcing the behaviour of the joke-teller (Wood & Niedenthal, 2018) and inadvertently minimizing the appearance of harm. Moreover, context may be important for how women react to sexist jokes; sexist jokes in the workplace may be perceived more negatively by women than if they are communicated in small social groups with familiar others. It is also possible that women may overall respond more negatively to sexist jokes if a man is expressing them instead of a woman. At least anecdotally, it is considered more acceptable for ingroup members to tell disparaging jokes against their group than for outgroup members to do so. Future research could investigate the impact of sexist joke exposure varying whether the joke-teller is a man or woman.

Third, we did not measure women’s emotions in response to sexist joke exposure, which may have more fully captured the role of sexist humour in ultimately generating negative bias effects. As mentioned above, LaFrance and Woodzicka (1998) found that women who heard sexist (vs. non-sexist) jokes generally reported feeling more disgusted, angry, and surprised, and
rolled their eyes more often. Yet they found that women higher in hostile sexism enjoyed the sexist jokes more and showed more genuine smiling (i.e., Duchenne smiling). Accordingly, future research could attempt to replicate current findings and include measures of positive and negative affect to better understand how emotional responses influence prejudice and discrimination in response to sexist humour among women higher in hostile sexism or cavalier humour beliefs.

Fourth, it would be worthwhile to consider the extent to which the present findings generalize to non-Western contexts. One major criticism of research in the behavioural sciences is that most samples are drawn from rich, Western industrialized countries (see Henrich et al., 2010), thereby limiting the ability for researchers to generalize findings to people at large. Accordingly, it is possible that the present findings are specific to university-educated Canadian women. Not only might the content and understanding of sexist jokes vary depending on culture, but reactions may also depend on cultural differences and tolerance of sexist behaviours. In the only example of research on sexist humour outside of a Western context, Diaconu-Muresan and Stewart (2010) examined Romanian college students’ reactions to sexist humour in a sample of 230 undergraduate students (70.4% male, 29.6% female). The researchers found that most participants (i.e., predominantly men) rated sexist jokes as moderately funny, with women who identified as feminists reacting the least favourably to sexist jokes. Although this would imply cross-cultural consistency with respect to how men versus women react to sexist jokes, additional cross-cultural research, including that outside of university settings, is needed to determine which sexist joke reactions are universal versus culturally-specific.
Concluding Remarks

In sum, the present studies suggest that women overall reject sexist humour by reacting unfavourably to sexist jokes. However, women who endorse greater hostile sexism or cavalier humour beliefs are less likely to reject sexist jokes and, instead, release prejudice and discrimination against women in response to sexist humour. In other words, our studies show that sexist stimuli and individual differences are important for fostering women’s prejudice and discrimination against their ingroup. Although most women did not disparage or discriminate against their ingroup upon sexist joke exposure, sexist jokes nonetheless led women overall to self-objectify, and it is important to keep in mind that women higher in hostile sexism or cavalier humour beliefs did react to sexist humour with greater anti-women sexism and/or discrimination. As such, the impact of sexist humour should be taken seriously.

Our findings have clear implications given that blatant expressions of sexism are declining in contemporary society and are being quickly replaced by more subtle or ambiguous expressions such as sexist jokes in the workplace. Disturbingly, the New York Times polled a representative sample of 615 men in workplace settings and found that men who reported telling sexist jokes and stories at work were five times more likely to report engaging in other harassing behaviours toward women (Patel et al., 2017). Yet in his seminal book The Nature of Prejudice, Allport (1954) considered the most damaging forms of intergroup behaviour to involve physical attacks of others, with joke-telling at the very low end of the continuum (see Jackman, 2005). Critically, however, recent research (including the present thesis) clearly indicates the harm involved with disparaging jokes: disparaging humour can not only be used against an outgroup to gain advantage but can be internalized by some in the targeted groups in ways that can demotivate calls to action and instead reify the status quo. As one of the last socially acceptable
forms of negative intergroup speech (Hodson et al., 2010), humour may become an increasingly powerful method of communicating intergroup motives. Therefore, targeting sexist humour is critical for fostering social change and enhancing women’s social position. Instilling anti-sexual harassment norms in workplace settings might prove particularly useful for reducing the occurrence of joke-telling and subsequent prejudice and discrimination against women.
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Appendix A: Demographics (Studies 1 and 2)

1. Age: _________________

2. Gender:
   Female
   Male
   Other; Please Specify: _________________

3. Ethnic Background (please tick any that apply):
   □ White/Caucasian/European
   □ English Canadian
   □ Black/African-American
   □ East Asian
   □ South Asian
   □ Aboriginal Peoples of Canada
   □ Middle Eastern
   □ Hispanic/Latino/South American
   □ Other (please specify): _________________
   □ Prefer not to answer

4. Sexual Orientation (please tick any that apply):
   □ Heterosexual
   □ Homosexual
   □ Bisexual
   □ Asexual
   □ Don’t know
   □ Other (please specify): _________________
   □ Prefer not to answer

5. Year in university: _________________
   □ Not applicable

6. Major: _________________
   □ Not applicable

7. What is your natural hair colour? __________
   □ Prefer not to answer
Appendix B: Cavalier Humour Beliefs Scale (Studies 1 and 2)

Please indicate how much you agree or disagree with each statement using the scale below:

1 2 3 4 5 6 7
Strongly Agree Somewhat Agree Slightly Agree Neutral Slightly Agree Somewhat Disagree Strongly Disagree

☐ prefer not to say

1. Sometimes people need to relax and realize that a joke is just a joke.
2. Society needs to lighten up about jokes and humour generally.
3. People get too easily offended by jokes.
4. It is okay to laugh at the differences between people.
5. Jokes are simply fun.
6. People should try to tell jokes that don’t put others down.

Appendix C: Joke Stimuli (Studies 1 and 2)

[After reading each joke below, participants will be asked to respond to the following three questions]:

(Study 1)

How funny or amusing is this joke to you?

1 2 3 4 5 6 7 8 9
not at all extremely
☐ prefer not to say

How offensive is this joke to you?

1 2 3 4 5 6 7 8 9
not at all extremely
☐ prefer not to say

How likely are you to repeat this joke to a friend?

1 2 3 4 5 6 7 8 9
not at all extremely
☐ prefer not to say
Neutral Jokes (Studies 1 and 2)


2. A grasshopper walked into a bar. The bartender said, "Hey, we have a drink named after you." The grasshopper said, "You have a drink named Marlon?"

3. What do you call a fish with no eyes? A fish.

4. Did you hear the joke about the roof? Never mind, it's over your head.


7. What's the difference between a guitar and a fish? You can't tuna fish.

8. What did the little mountain say to the big mountain? Hi Cliff!

9. What did the triangle say to the circle? You're pointless!

10. What did one ocean say to the other? Nothing. It just waved.

Belittling Jokes (Study 1)

1. What do UFOs and smart women have in common? You keep hearing about them, but never see any.

2. Why haven't any women ever gone to the moon? It doesn't need cleaning yet.

3. What's the difference between Big Foot and an intelligent woman? Big Foot has been spotted several times.

4. Two blondes fell down a hole. One said, "It's dark in here, isn't it?" The other replied, "I don't know; I can't see."

5. Two female truck drivers came to a low bridge. The clearance said 10 feet 8 in., but their vehicle was 11 feet tall. The first woman looked at the other and said, "I can't see any cops around. Let's go for it."

6. What do women and beer bottles have in common? They're both empty from the neck up.

7. Two women were out hunting when they came upon some tracks. The first woman declared them to be deer tracks. The second woman disagreed, insisting they must be buffalo tracks. They were still arguing when a train hit them.

8. Two blondes were driving to Disneyland. The sign said: Disneyland left. So they started crying and headed home.

10. Why couldn’t the blonde write the number eleven? She didn't know which "1" came first.

**Aggressive Jokes (Studies 1 and 2)**

1. What do you tell a woman with two black eyes? Nothing, you already told her twice.

2. I like my violence like I like my beer: domestic.

3. You are stuck in an elevator with a tiger, a lion, and a woman. You have a gun with just two bullets in it. What do you do? Shoot the woman twice to make sure she's dead.

4. How do you get your dishwasher to work? Slap her.

5. What's the difference between a woman and a trampoline? You take off your shoes before you jump on a trampoline.

6. What do you do when your wife is staggering? Shoot her again.

7. Did you hear they finally made a device that makes cars run 95% quieter? Yeah, it fits right over your wife’s mouth.

8. What do you have when a woman is buried up to her neck in sand? Not enough sand.

9. What’s the difference between a dead dog on the road and a dead woman on the road? There are skid marks in front of the dog.

10. If your wife keeps coming out of the kitchen to nag at you, what have you done wrong? You made her chain too long.
Appendix D: Social Dominance Orientation Scale (Study 1)

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.

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Strongly Oppose</td>
<td>Somewhat Oppose</td>
<td>Slightly Oppose</td>
<td>Neutral</td>
<td>Slightly Favour</td>
<td>Somewhat Favour</td>
<td>Strongly Favour</td>
</tr>
<tr>
<td>2</td>
<td>□ prefer not to say</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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.

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.

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.

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.
Appendix E: Ambivalent Sexism Inventory (Studies 1 and 2)

Below is a series of statements concerning men and women and their relationships in contemporary society. Please indicate the degree to which you agree or disagree with each statement using the following scale:

<table>
<thead>
<tr>
<th>0</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>□</td>
<td>prefer not to say</td>
<td>prefer not to say</td>
<td>prefer not to say</td>
<td>prefer not to say</td>
<td>prefer not to say</td>
</tr>
</tbody>
</table>

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

2. Many women are actually seeking special favours, such as hiring policies that favour them over men, under the guise of asking for “equality.”

3. In a disaster, women ought not necessarily be rescued before men.

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

5. Women are too easily offended.

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

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

8. Many women have a quality of purity that few men possess.

9. Women should be cherished and protected by men.

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

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

12. Every man ought to have a woman whom he adores.

13. Men are complete without women.

14. Women exaggerate problems they have at work.

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

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

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

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

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

21. Feminists are making entirely reasonable demands of men.
Appendix F: Manipulation Check (Study 2)

Using the scale below, please indicate your responses to the following items.

1 2 3 4 5 6 7 8 9
not at all prefer not to say extremely

1. Please rate the extent to which the jokes were overall objectifying (i.e., reduced women to their body parts for the pleasure of others) toward women.

2. Please rate the extent to which the jokes were overall aggressive.

3. Overall, how funny or amusing were the jokes to you?

4. Overall, how offensive were the jokes to you?

5. How likely are you to repeat these jokes to a friend?

Appendix G: Modern Sexism (Study 2)

Below are a series of statements with which you may either agree or disagree. For each statement, please indicate the degree of your agreement or disagreement by indicating a number from 1 to 7.

1 2 3 4 5 6 7
Strongly Moderately Slightly Neither Slightly Moderately Strongly
Disagree Disagree Disagree Disagree Agree Agree Agree
Nor Agree

1. Women often miss out on good jobs due to sexual discrimination.

2. It is rare to see women treated in a sexist manner on television.

3. Society has reached the point where women and men have equal opportunities for achievement.

4. It is easy to understand the anger of women’s groups in Canada.

5. Over the past few years, the government and news media have been showing more concern about the treatment of women than is warranted by women’s actual experiences.

6. Discrimination against women is no longer a problem in Canada.

7. On average, people in our society treat husbands and wives equally.

8. It is easy to understand why women’s groups are still concerned about societal limitations of women’s opportunities.
Appendix H: Support for Women’s Rights (Study 2)

Below are a series of statements with which you may either agree or disagree. For each statement, please indicate the degree of your agreement or disagreement by indicating a number from 1 to 7.

1. Women deserve to be paid the same as men for equivalent work.
2. Women have the right to not be catcalled (e.g., whistled at by men).
3. Women deserve the same rights as men.
4. Women have the right to do as they please with their bodies.
5. Workplaces ought to have workshops on sexual harassment prevention.

Appendix I: Willingness to Discriminate Against Women (Study 2)

Please think about the following situations. Using the scale below, provide your reactions by indicating the extent to which you find each situation acceptable or not.

1. An employer denies Mary a leadership role because he considers women too emotional.
2. Emma, a Member of Parliament, receives daily comments in the media about the clothing she wears.
3. Patricia’s boss denies her a promotion because he worries that her children take priority over her work.
4. Jennifer’s male employer does not invite her to a business meeting at a gentleman’s club.
5. Olivia’s boss tells her to wear high heels to work as part of the dress code.
Appendix J: Feeling Thermometers (Study 2)

Please indicate your attitude toward the listed groups by placing an “X” in the appropriate box. The rating scale resembles values on a thermometer. Lower values are used to indicate unfavourable attitudes (i.e., dislike of the group), and higher numbers are used to indicate favourable attitudes (i.e., liking of the group).

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<th>extremely unfavourable</th>
<th>0-10°</th>
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<th>21-30°</th>
<th>31-40°</th>
<th>41-50°</th>
<th>51-60°</th>
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□ prefer not to say

Appendix K: Self-Objectification Beliefs and Behaviours Scale (Study 2)

Below are a series of statements with which you may disagree or agree. Using the scale below, please indicate the extent to which you disagree or agree with each statement.

1 = Strongly disagree  2  3 = Neither agree nor disagree  4  5 = Strongly agree

1. Looking attractive to others is more important to me than being happy with who I am inside.
2. I try to imagine what my body looks like to others (i.e., like I am looking at myself from the outside).
3. How I look is more important to me than how I think or feel.
4. I choose specific clothing or accessories based on how they make my body appear to others.
5. My physical appearance is more important than my personality.
6. When I look in the mirror, I notice areas of my appearance that I think others will view critically.
7. I consider how my body will look to others in the clothing I am wearing.
8. I often think about how my body must look to others.

9. My physical appearance says more about who I am than my intellect.

10. How sexually attractive others find me says something about who I am as a person.

11. My physical appearance is more important than my physical abilities.

12. I try to anticipate others’ reactions to my physical appearance.

13. My body is what gives me value to other people.

14. I have thoughts about how my body looks to others even when I am alone.

Appendix L: Suspicion Check (Studies 1 and 2)

1. Can you guess what the study was about?

________________________________________________________________

2. Did anything about the study make you suspicious? (choose one): YES  NO

________________________________________________________________

If yes, please elaborate:

________________________________________________________________

Please add any additional comments you may have about the study here:

________________________________________________________________

Additional Questions:

1. Did you take part in a study on jokes in January-March 2017? YES/NO

2. To what you consider the present study:

   Interesting
   Enjoyable
   Stressful

   (rated 1 = not at all, 7 = very)
Appendix M: Ethics Clearance Forms

Certificate of Ethics Clearance for Human Participant Research

DATE: 12/6/2016

PRINCIPAL INVESTIGATOR: HODSON, Gordon - Psychology

FILE: 16-127 - HODSON

TYPE: Masters Thesis/Project

STUDENT: Elvira Prusaczyk

SUPERVISOR: Gordon Hodson

TITLE: Jokes and Humour Ratings

ETHICS CLEARANCE GRANTED

Type of Clearance: NEW
Expiry Date: 12/29/2017

The Brock University Social Science Research Ethics Board has reviewed the above named research proposal and considers the procedures, as described by the applicant, to conform to the University’s ethical standards and the Tri-Council Policy Statement. Clearance granted from 12/6/2016 to 12/29/2017.

The Tri-Council Policy Statement requires that ongoing research be monitored by, at a minimum, an annual report. Should your project extend beyond the expiry date, you are required to submit a Renewal form before 12/29/2017. Continued clearance is contingent on timely submission of reports.

To comply with the Tri-Council Policy Statement, you must also submit a final report upon completion of your project. All report forms can be found on the Research Ethics web page at http://www.brocku.ca/research/policies-and-forms/research-forms.

In addition, throughout your research, you must report promptly to the REB:

a) Changes increasing the risk to the participant(s) and/or affecting significantly the conduct of the study;
b) All adverse and/or unanticipated experiences or events that may have real or potential unfavourable implications for participants;
c) New information that may adversely affect the safety of the participants or the conduct of the study;
d) Any changes in your source of funding or new funding to a previously unfunded project.

We wish you success with your research.

Approved:

[Signature]

Jan Frijters, Chair
Social Science Research Ethics Board

Note: Brock University is accountable for the research carried out in its own jurisdiction or under its auspices and may refuse certain research even though the REB has found it ethically acceptable.

If research participants are in the care of a health facility, at a school, or other institution or community organization, it is the responsibility of the Principal Investigator to ensure that the ethical guidelines and clearance of those facilities or institutions are obtained and filed with the REB prior to the initiation of research at that site.
Certificate of Ethics Clearance for Human Participant Research

DATE: 12/11/2017
PRINCIPAL INVESTIGATOR: HODSON, Gordon - Psychology
FILE: 16-127 - HODSON
TYPE: Masters Thesis/Project
STUDENT: Elvira Prusaczyk
SUPERVISOR: Gordon Hodson
TITLE: Jokes and Humour Ratings

ETHICS CLEARANCE GRANTED
Type of Clearance: RENEWAL
Initial Clearance Date: 12/6/2016
Expiry Date: 12/1/2018

The Brock University Social Science Research Ethics Board has reviewed the above named research proposal and considers the procedures, as described by the applicant, to conform to the University’s ethical standards and the Tri-Council Policy Statement.

Renewed certificate valid from 12/11/2017 to 12/1/2018.

The Tri-Council Policy Statement requires that ongoing research be monitored by, at a minimum, an annual report. Should your project extend beyond the expiry date, you are required to submit a Renewal form before 12/1/2018. Continued clearance is contingent on timely submission of reports.

To comply with the Tri-Council Policy Statement, you must also submit a final report upon completion of your project. All report forms can be found on the Research Ethics web page at http://www.brocku.ca/research/policies-and-forms/research-forms.

In addition, throughout your research, you must report promptly to the REB:
  a) Changes increasing the risk to the participant(s) and/or affecting significantly the conduct of the study;
  b) All adverse and/or unanticipated experiences or events that may have real or potential unfavourable implications for participants;
  c) New information that may adversely affect the safety of the participants or the conduct of the study;
  d) Any changes in your source of funding or new funding to a previously unfunded project.

We wish you success with your research.

Approved: _________________________
Ann-Marie DiBlase, Chair
Social Science Research Ethics Board

Note: Brock University is accountable for the research carried out in its own jurisdiction or under its auspices and may refuse certain research even though the REB has found it ethically acceptable.

If research participants are in the care of a health facility, at a school, or other institution or community organization, it is the responsibility of the Principal Investigator to ensure that the ethical guidelines and clearance of those facilities or institutions are obtained and filed with the REB prior to the initiation of research at that site.
Certificate of Ethics Clearance for Human Participant Research

DATE: June 23, 2017

PRINCIPAL INVESTIGATOR: HODSON, Gordon - Psychology

FILE: 16-127 - HODSON

TYPE: Masters Thesis/Project

STUDENT: Elvira Prusaczyk

SUPERVISOR: Gordon Hodson

TITLE: Jokes and Humour Ratings

ETHICS CLEARANCE GRANTED

Type of Clearance: MODIFICATION

Expiration Date: 12/29/2017

The Brock University Social Sciences Research Ethics Board has reviewed the above named research proposal and considers the procedures, as described by the applicant, to conform to the University’s ethical standards and the Tri-Council Policy Statement.

Modification: New stimuli added, random assignment and additional instruments.

The Tri-Council Policy Statement requires that ongoing research be monitored by, at a minimum, an annual report. Should your project extend beyond the expiry date, you are required to submit a Renewal form before 12/29/2017. Continued clearance is contingent on timely submission of reports.

To comply with the Tri-Council Policy Statement, you must also submit a final report upon completion of your project. All report forms can be found on the Research Ethics web page at http://www.brocku.ca/research/policies-and-forms/research-forms.

In addition, throughout your research, you must report promptly to the REB:

a) Changes increasing the risk to the participant(s) and/or affecting significantly the conduct of the study;
b) All adverse and/or unanticipated experiences or events that may have real or potential unfavourable implications for participants;
c) New information that may adversely affect the safety of the participants or the conduct of the study;
d) Any changes in your source of funding or new funding to a previously unfunded project.

We wish you success with your research.

Approved: Ann-Marie DiBiase, Chair
Social Science Research Ethics Board

Note: Brock University is accountable for the research carried out in its own jurisdiction or under its auspices and may refuse certain research even though the REB has found it ethically acceptable.

If research participants are in the care of a health facility, at a school, or other institution or community organization, it is the responsibility of the Principal Investigator to ensure that the ethical guidelines and clearance of those facilities or institutions are obtained and filed with the REB prior to the initiation of research at that site.