Why people misunderstand sexism.

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Declaration

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Abstract

Sexism and misogyny are not perfect synonyms. As well as being reviled, women are revered as the moral, refined, but weaker sex who need and deserve men's reverence and protection. This latter, warm, paternalistic representation of women is known as benevolent sexism (BS). Though it is affectionate, BS is counterproductive to gender equality in well-documented ways and tends to go hand-in-hand with misogyny. Research paints a less clear or complete picture of people's understanding of BS: do people 'get' what it is and what consequences it has? In the present thesis, I show that for the most part people do not understand BS, and that their misunderstanding springs precisely from the warmth of BS. Thus, perceptions of warmth, which are known to play a central role in social cognition, also play a central role in masking the structure and function of sexism. Eight studies use observational, correlational, and experimental methods to examine the role of warmth in concealing the functions of BS. Three studies provide evidence that warmth influences women's (under)reactions to experiences of benevolent sexism (Ch. 2). Together, Studies 1 (n = 297), 2 (n = 252), and 3 (n = 219) indicated that although women recall experiencing benevolent (vs. hostile) sexism more often, they protest it less often, because they see it as warm. In Study 4 (n = 296, Ch. 3), men who portrayed benevolently sexist behaviours toward women (vs. hostile and control behaviours) toward women were seen as lower in hostile sexism (HS) and more supportive of gender equality. In Study 5 (n = 283, Ch. 3) men high (vs. low) in BS attitudes were seen as lower in HS, more supportive of gender equality, and much lower in a wide array of known correlates of BS. The pattern of results largely showed that people erroneously perceive men high (vs. low) in BS as less likely to support outcomes which are antagonistic to women's interests (e.g. justification of domestic violence), and more likely to support outcomes in women's interests (e.g. gender specific collective

action). In Study 6 (*n* = 211, Ch. 3), the causal role of warmth was established by experimentally manipulating the warmth of protagonists' attitudes toward women. Study 7 (*n* = 263, Ch. 4) conceptually replicated and extended the findings of Study 6 by manipulating a man's apparent trait warmth (whether he was a warm or cold personality) rather than his warmth toward women specifically. A final study (Study 8, *n* = 198, Ch. 4) investigated the influence of warmth on perceptions of BS more closely by orthogonalizing men's apparent trait warmth and the warmth of their attitudes toward women specifically (e.g., a man could be warm generally, but have cold attitudes toward women). In keeping with a Gestalt understanding of warmth, findings suggest that trait and attitudinal warmth combine additively and multiplicatively to influence perceptions of BS, albeit the influence of attitudinal warmth may be more proximal. In concert, these findings demonstrate that the warm affective tone of BS, particularly when displayed by men, masks its ideological functions. A final chapter discusses implications for theories of consent and legitimacy in social systems, for theories of person perception, for future research in gender relations, and for applications of that research, for example in efforts to raise consciousness about the misleading dynamics of sexism.

Chapter 1: Literature Review

In his landmark book The Subjection of Women, John Stuart Mill argued that gender inequality represents "one of the chief hindrances to human improvement" (p. 125, 1869/1970). At the time, this was a radical argument, since women's inferior status was formally enshrined in political, legal, and religious systems – and for centuries had remained largely unexamined. Since then, great efforts have been made by political, public and charitable institutions to reduce it. These efforts, at least in the global West, have improved women's outcomes. For example, few legally enshrined inequalities still exist between men and women (EIU, 2012). Likewise, in the EU there are now more women in tertiary education than men, and in the US just over 50% of law and medical graduates are women (Ely & Meyerson, 2000; Olson, 2016). However, progress has been slow and often met with backlash. Inequality, though reduced, remains pervasive. For example, globally a third of women report sexual or physical violence from an intimate partner, only 24% of parliamentarians are women worldwide and women do the majority (79%) of daily domestic and caring duties (European Commission, 2018; IDEA, 2017). Importantly, these inequalities are still rationalised by a large proportion of the population as related to women's roles or natural dispositions (European Commission, 2018; Skewes, Fine & Haslam, 2018). As such, further inquiry into the psychological processes that cause deep-seated gender inequality to be legitimised and held in place is needed.

A pivotal insight from Glick and Fiske (1996, 2001) has shed light on the stubborn persistence of gender inequality: it is held in place by sexist ideologies that do not simply revile and denigrate women. Rather, an aspect of these ideologies known as benevolent sexism also portrays women as uniquely moral, sensitive, refined, and indispensable for

men's happiness and authenticity. Crucially, it also suggests that men should revere women and make material sacrifices to protect women and support them economically. Research indicates that this warm, affectionate aspect of sexism makes the overall standing and treatment of women more palatable to them, undermining their motivation to improve their social and economic position (Connelly & Heesacker, 2012; Glick & Fiske, 2001; Hammond & Sibley, 2011; Jackman, 1994). It is also positively correlated with misogyny and acts in concert with it as a carrot-and-stick, honey-and-vinegar system of social control (Glick & Fiske, 1996, 2001, 2011; Jost & Kay, 2005).

In the present chapter, I propose that particularly when it is displayed by men, benevolent sexism is misapprehended as antagonistic to misogyny and conducive to gender equality. I also propose that the central importance of warmth in social cognition is responsible for this misapprehension. First, I outline accounts of fundamental forces that gave rise to traditional patriarchal gender relations. Next, I will review Glick and Fiske's (1996, 2001) Ambivalent Sexism Theory which acknowledged these fundamental forces and proposed the concept of benevolent sexism. After introducing benevolent sexism, I will review the correlates and consequences of this ideology among both men and women. Then, I will discuss existing research on lay persons' understanding of benevolent sexism. Following this, theory and research on the importance of cognitive consistency and the centrality of warmth in person perception will be discussed. Finally, I will argue that the primacy of warmth in person perception leads women (and men) to make inaccurate inferences about benevolent sexism – its relationship with misogyny and women's social, relational and intrapersonal outcomes.

Roots of gender relations: male dominance and intimate interdependence

Undoubtedly, gender relations have varied somewhat in their exact dynamic, with

norms, standards and traditions changing temporally and cross-culturally. However, an enduring and pancultural aspect of gender relations is their patriarchal nature (Eagly & Wood, 1999; Glick & Fiske, 2001). Indeed, anthropological and historical evidence converges on the presence of patriarchy (in some form) across all cultures (Ortner, 1974). The two most prominent accounts of the origins of patriarchy are the social biological account (Eagly & Wood, 1999; Wood & Eagly, 2002) and the evolutionary account of sexual selection (Buss, 1995; Buss & Schmitt, 1993; Trivers, 1972). While an exhaustive discussion of each perspective is beyond the scope of this thesis, I will outline both perspectives, paying particular attention to the ways in which these accounts converge on a general consensus of patriarchy's roots.

From a socio-biological perspective, current gender relations are the outcome of biological differences favouring the greater strength among men compared to women, combined with societal developments. More specifically, Eagly and colleagues suggest that gender relations were more egalitarian in early human societies (e.g. hunter-gather societies) because men and women both occupied roles which gave them access to valued resources. Men, due to their greater physical strength and size were specialised for hunting, but women also contributed substantially to providing through forging vegetation. Indeed, the gathering of vegetation was often a more stable source of food – easier to obtain, abundant and did not spoil as quickly as meat (Eagly & Wood, 1999, 2012; Rudman & Glick, 2008; DeVore & Tooby, 1987). In this account, gender relations began to change with the advent of agriculture. People were now able to produce food in surplus of what was immediately needed for sustenance. This is argued to be important for two reasons. The first is that women's roles (and power) as gatherers became redundant. Second, because unlike women, men were not restricted by childrearing and nursing they were able to gain greater power and influence through the production and storing of food (Wood & Eagly, 2002; Smuts, 1995).

As a result, women's social role became more restricted to the domestic sphere and they consequently became more dependent on men. According to the socio-biological account, it is the simultaneous reduction in women's power and the monopolization of men's that led to the development of patriarchy.

From an evolutionary perspective, the patriarchal nature of gender relations arises because women have *selected* male partners for their resources. Central to this perspective is *sexual selection theory*, which argues that the dimension on which one sex competes is determined by the preferences of the other sex (Buss, 1995). Accordingly, because women value resources men will engage in often fatal intra-sex competition. Men who display greater dominance and aggression are more successful in acquiring and maintaining control of resources. This greater success in resource acquisition is thought to provide these men with more opportunities to mate. Through an iterative process of sexual selection (by women) then, male populations are argued to have developed a natural predisposition toward dominance as a means of attaining resources and mates. Moreover, this perspective also purports to explain the development of intimacy. It is suggested that women seek protection from this male dominance (including sexual aggression, coercion and infanticide; Smuts, 1995) by pair bonding with males who will protect them from male hostility (Glick & Rudman, 2012; Gul & Kupfer, 2018). At the same time, through monogamous sexual relations with a man, a woman would expect to receive greater investment in child rearing (Trivers, 1972). As such, close heterosexual interdependence is developed and maintained. By this account then, women play a key role in determining the development and maintenance of male dominance and intimate interdependence.

Of course, both perspectives are not without criticisms. Some scholars have contested this view of early hunter-gatherer societies as inherently more equitable. They argue that resources would have likely been divided in line with social conventions and access (i.e.

hunters would have had first access to the food, and likely consumed it in part before bringing it to the group; Berbesque, Wood, Crittenden, Mabulla, & Marlowe, 2016; Speth, 1990). Likewise, others argue it is inaccurate to make broad inferences about a society's general ideological tendency toward equality based on a single behavioural norm (e.g. food distribution; Speth, 1990). Egalitarianism is after all an ideology developed only relatively recently in human history (see Locke 1690). Others still, argue for the integration of these two perspectives. For example, Buss (1995) posits it is likely through interaction with the environment that men's greater dominance resulted in women's greater dependence, eventually leading to current gender relations, rather than through sexual selection processes alone (Archer, 1996; Buss & Schmitt, 2011; Durham, 1991).

While the two perspectives weight the influence of female mate choice and cultural developments differently, there is clear convergence on the centrality of male dominance and heterosexual intimacy in shaping gender relations and ultimately patriarchy. This confluence is important because the existence of these social forces are considered the basis of gender ideology and sexism (Buss & Schmitt, 2011; Eagly &Wood, 2011; Glick & Fiske, 1996, 2001; Rudman & Glick, 2012).

Ambivalent Sexism Theory

As we have seen both the socio-biological and evolutionary perspectives on gender relations argue that male dominance and intimate interdependence are the cornerstones of gender relations. Consonant with this reasoning, Peter Glick and Susan Fiske proposed Ambivalent Sexism Theory (AST; 1996, 1997, 2001, 2011). AST argues, like the socio-biological and evolutionary perspectives, that gender relations are unequal, but highly interdependent. Moreover, this interdependence is particularly prevalent within close and romantic relationships. According to AST, the confluence of unequal yet interdependent relations between the sexes produces two distinct forms of sexist ideology: Hostile Sexism

(HS) and Benevolent Sexism (instructively abbreviated to BS by Glick & Fiske, 1996). HS portrays women in misogynistic terms as manipulative, devious, and inferior to men. Research shows that HS is akin to traditional prejudice toward women. Men high in HS exhibit greater tolerance of sexual harassment (Russell & Trigg, 2004), have greater rape proclivity (Masser, Viki & Power, 2006), support sexist hiring policies (Masser & Abrams, 2004) and restriction of women's reproductive and prenatal choices (Petterson & Sutton, 2018).

In contrast, BS casts women as the kinder, more moral and even more refined gender. BS ascribes women's unique personality traits (e.g. caring, giving) as essential for men's romantic fulfilment and happiness, and promises men's protection and support of women in exchange for their deference (Glick, Diebold, Bailey-Werner & Zhu, 1997). Research shows that BS makes traditional gender roles (e.g. housewife, mother) appealing for women, and rewards conformity to traditional gender expectations with esteem and privilege (Cikara, Lee, Fiske & Glick, 2009; Chen, Fiske & Lee, 2009). Ultimately, BS confers unique benefits and needs to women which complement men's needs. In this way, HS and BS possess distinctly negative and positive evaluative tones. While their opposing valences might initially indicate a conflictual relationship, both serve to legitimise men's greater power and the gender status quo, albeit in different ways.

In their original paper (1996) Glick and Fiske point out that gender relations are unlike other forms of intergroup prejudices, which usually centre around pejorative views of the outgroup (Allport, Clark & Pettigrew, 1954). In contrast, Glick and Fiske argue that gender relations are ambivalent. Men and women's relationships are not only defined by hostility, but also by close bonds, kinships and cooperation. This reasoning is echoed by Jackman (1994), whose alternative account of inter-group relations suggests that relations between dominant and subordinate groups are more often characterised by persuasion than by

conflict. In her discussion of gender, race, and class relations Jackman argues that expressions of untempered hostility toward subordinates is a short-sighted, often ineffective strategy for dominant groups to maintain power. Moreover, absolute hostility toward women is more likely to hinder rather than help men's fulfilment of intimacy needs and interdependence with women (Jackman, 1994; Rudman & Glick, 2008).

Herein lies the *central gender relations paradox* (Glick, 2013): how do men maintain and justify their dominance, without precluding genuine heterosexual intimacy needs? According to AST, HS and BS are borne out of necessity to balance these competing needs. In this way, BS and HS are conceptualised as complementary (and not competing) ideologies in maintaining traditional gender relations. BS is considered "the honey" encouraging women to accept traditional gender roles which justify male dominance, and HS "the vinegar" to punish women who flout the gender status quo (Glick & Fiske, 1996, 1997, 2001; Jost & Kay, 2005). In sum, the positivity toward women that encapsulates BS serves to legitimate gender inequality by portraying women as essentially different from and less agentic than men, implying that gender relations are fair (Glick & Fiske, 2001; Jost & Banaji, 1994; Jost & Kay, 2005).

This supposed need to balance male dominance and intimate interdependence is reflected in the assumption that HS and BS share three subcomponents. These are paternalism, gender differentiation and heterosexuality (Glick & Fiske, 1996, 1997). Paternalism reflects the belief of an authority figure (traditionally a father) in their superior knowledge of what is best for an individual or group. The enforcement of such beliefs ultimately limits women's personal freedoms (Jackman, 1994; Kant, 1999; Mill, 1869/1970). AST proposes that two types of paternalism characterise gender relations: *dominative* and *protective.* Dominative paternalism is the belief that women are not sufficiently competent to be in positions of power. Male dominance is justified then by a belief in women's inferiority.

In more egalitarian societies dominative paternalism is expressed in the belief that women are trying to usurp men's power and make unfair gains over them (Glick & Fiske, 1997; 2001). In contrast, protective paternalism is more positive in tone, promising that men's greater power will be used to protect and provide for the women in their lives. Glick and Fiske (1997) argue that women's greater *dyadic power*, derived from men's dependence on women for sexual and intimacy needs (Guttentag & Secord, 1983) means that men are particularly likely to espouse sentiments and enact behaviours in line with protective paternalism to female family members.

The second component reflects the primacy of gender in differentiating individuals from birth (or even before in some cases) into distinct categories. Early work on gender stereotypes revealed that cross-culturally people tend to associate men with agentic traits (e.g. competitive, assertive) and women with communal traits (e.g. relational, emotional; cf Spence, Helmreich & Holahan, 1979). Eagly and colleagues (Eagly, 1987, Wood & Eagly, 2002) later showed that these trait ascriptions and their subsequent gender roles are derived from inferences made about the social roles that men and women typically occupy in society (i.e. men in higher status paid work, women in lower status caring work). Male dominance is justified along these stereotypical dimensions of gender through *competitive differentiation*. Competitive differentiation confers only to men the unique characteristics necessary to hold power and status. At the same time, the need for intimacy and dependence on women is fostered through *complementary* gender differentiation. Women's greater domestic and interpersonal abilities are presented as naturally accounting for men's apparent lack of such proclivities (Connor, Fiske & Glick, 2010). In this way, the distinction between men and women as entitative groups, each with a set of unique traits that naturally compensate for the other's shortcomings is maintained.

The final subcomponent of ambivalent sexism is Heterosexuality. The intimate nature of relationships between men and women means that heterosexuality is the biggest source of ambivalence in gender relations (Connor, Fiske & Glick, 2010). Close relationships with the opposite sex, represent both the opportunity to achieve meaningful and genuine intimacy (*heterosexual intimacy*), and also a possible threat to male dominance (*hostile heterosexuality*). The complementary traits derived from gender differentiation are important in the development of heterosexual intimacy – as women's nurturing qualities are presented a necessary for men's happiness (Glick & Fiske, 1996, 1997). In contrast, hostile heterosexuality is a means of controlling women's sexuality to reduce the feelings of threat elicited by women's greater dyadic power in close relationships. It is usually expressed as a fear that women will use their sexuality to control men and gain unfair advantages. Indeed, a recent study of heterosexual couples found that men who endorse HS believe they have less power in their relationship (relative to their partner), and that this predicts greater self-reported and observed hostility to their partners (Cross, Overall, Hammond & McNulty, 2018). The negative and positive aspects of each of the three subcomponents reflects the complementary nature of HS and BS. They are conceptualised as two halves of the same whole, each distinct but working in tandem to maintaining gender inequality.

Complementary ideologies: The relationship between Hostile and Benevolent Sexism

Early studies of Ambivalent Sexism consistently found that HS and BS are independent but positively correlated constructs (for details of factor structure please see Glick & Fiske, 1996, Glick et al., 2000). At an individual level, HS-BS correlations are usually between .40 and .50, meaning that individuals who endorse HS are also likely to endorse BS, and vice versa (see Glick et al., 2000; 2004). However, the first investigation of ambivalent sexism yielded less consistent findings. A positive HS-BS correlation was only reported among student samples of men and women, and a community sample of women

(Glick & Fiske, 1996). Somewhat unexpectedly in two community samples of men (see sample 4 and 5, Glick & Fiske, 1996) a non-significant relationship (*r* between -.12 and -.15) between HS and BS was found.

Glick and Fiske (1996, 1997) argued that these null correlations reflected the greater variability in older men's experiences with women. The content of these experiences determine which type of sexism will be adopted. They reasoned for example that a man who experiences mostly negative interactions with women (e.g. losing out to a woman for promotion) will most likely endorse HS. Conversely, men who experience positive interactions with women (e.g. strong maternal bonds, having a daughter) will be more likely to endorse BS. In short, they assumed that average men are more likely to hold univalent attitudes to women.

In contrast, more recent research from a nationally representative sample of more than six thousand New Zealand adults suggests this is unlikely: men do not have univalent attitudes toward men. Using latent class analysis, Sibley and Becker (2012) found that only 2-5% of their sample could be classified as univalent sexists. Regardless, it is still in theory possible that these early null correlations can be explained by a high prevalence of univalent sexists in those samples. Especially in smaller samples (as in this case, $n = 150$), the HS-BS correlation could be attenuated by the presence of more univalent sexists, resulting in the average sexism scores appearing uncorrelated.

Further data collected from large cross-national samples replicated this HS-BS correlation suggesting that early evidence for men's univalent attitudes to women was indeed anomalous (Glick et al., 2000; 2004). In a sample of 15,000 people across 19 nations, Glick et al. found an average HS-BS correlation of $r = .23$ (range .20 - .49) for men and $r = .37$ (range .11 - .64) for women. Moreover, significant correlations were present between HS and

BS in all but one nation for women (South Africa) and in all but six for men (Belgium, Botswana, Italy, Nigeria, Portugal and South Africa). In a subsequent cross-national investigation of 16 countries, HS and BS were positively correlated for men at .33 (range .15 - .72) and for women at .44 (range .14 -.59; Glick et al., 2004).

In both studies, men endorsed HS significantly more than women. For BS the findings were less uniform. In the sample of 19 nations (Glick et al., 2000), women endorsed BS to the same extent as men in nine nations. In a smaller number of cases (four countries) women endorsed BS more than men. In the remaining six countries, men scored higher on BS than women. Likewise, in the sample of 16 nations (Glick et al., 2004), women and men's BS was equivalent in nine countries, in two countries women endorsed BS to a greater extent and in five nations men scored higher than women. At the aggregate national level, these relationships become even stronger, with HS-BS correlated at between .80 and .90 for both men and women (Glick et al., 2000; 2004). This means that as national levels of hostility toward women increase, so does national level endorsement of benevolence to women. These findings lend support to Glick and Fiske's argument that HS and BS go hand in hand to justify greater male dominance and power.

While the presence of a positive HS-BS correlation at the individual and national level reflects the complementarity of these ideologies, Glick and Fiske were initially not so sure (2011). Early conjectures of AST were inspired by, and in part based on theories of ambivalent prejudice (cf. Gaertner & Dovidio, 1986; Katz & Hass, 1988). According to these theories, ambivalence is functionally a state of cognitive dissonance (Festinger, 1957). Given that people seek to minimize conflictual cognitions, Katz (1981) suggested that people who hold ambivalent attitudes will seek to supress either their positive or negative attitudes to the target (depending on contextual cues). In effect, these strategies would mean that an ambivalent sexist would be avoiding dissonance by experiencing and expressing only

univalent attitudes to women at any given moment (Glick et al., 1997). If this were the case, a negative or null relationship between ambivalent attitudes would be expected. However, this is not the case for ambivalent attitudes to women (typical HS-BS correlation .40 -.50). Unlike their equivalent counterparts in other ambivalent prejudices (i.e. ambivalent racism: pro-black, anti-black), HS and BS share a common goal – the justification of male dominance and traditional gender roles. Indeed, it is this shared objective that explains the psychological complementarity of HS and BS and their positive covariation.

On the face of it, this conjecture appears to fail in actually explaining how sexists avoid dissonance. However, it is precisely the complementarity of these ideologies that means they can be directed at different *subtypes* of women. Glick and Fiske (1996, 2001) reasoned that different types of women would elicit either HS or BS reactions. For example, sexists would react positively with BS to women who endorse traditional gender roles (e.g. mothers), and negatively with HS to women who flout gender norms (e.g. lesbians). Ambivalent sexists avoid conflicting and uncomfortable cognitions about women then by sorting them into *good* or *bad* categories using widely held cultural stereotypes. Early empirical findings support this reasoning. In two studies, Glick et al. (1997) asked men to generate eight subtypes of women and then evaluate them (from negative to positive). Independent raters categorised the generated subtypes as traditional or non-traditional. Ambivalent sexist and non-sexist men generated similar categories of women (e.g. feminist, housewife). Likewise, mean score evaluations of female subtypes did not differ between sexists and non-sexists. However, compared to non-sexists, ambivalent sexists' scores contained greater variance (across the eight subtypes). This greater variance reflects the polarisation of ambivalent sexists' views of women.

In addition, HS and BS scores each predicted opposing trait ascriptions to female subtypes (see Study 2, Glick et al. 1997). HS uniquely predicted the ascription of negative

traits to non-traditional *career women* and BS predicted the exact opposite, positive ascriptions to traditional *housewives* (Glick et al., 1997). Similar patterns of results were obtained from cross-national samples (Glick et al., 2000, 2004). In most nations, HS was associated with more negative attributions of women as sly and selfish and BS with positive attributions of women as warm and sweet. In sum, these results suggest that ambivalent sexists can successfully avoid cognitive conflict by subtyping women according to culturally prevalent stereotypes. In this way HS and BS act in complement, rather than competition with one another. Moreover, these findings indicate that BS and HS are associated with stereotypes and attitudes toward women which are distinct in their evaluative tone – HS denotes obviously negative and BS clearly positive beliefs about women.

Correlates and consequences of Benevolent Sexism

Early theorising and research clearly demonstrated that BS goes hand-in-hand with positive stereotypes and warm feelings toward women (Glick et al., 1997; REFS). Nevertheless, it also represents a pejorative view of women as the weaker sex (Glick & Fiske, 2001). In this section I will review research that shows how pervasive BS is in influencing various aspects of life. In addition to being positively associated with HS (Glick & Fiske, 1996; Glick et al., 2000), BS has been associated with a range of outcomes that serve to limit and undermine women's interests. Heuristically, these can be grouped into group, relational and intrapersonal outcomes [1]. Research into these outcomes has employed a mixture of methods including cross-sectional, experimental and longitudinal designs. Note that many of these outcomes discussed in this next section are included as dependent variables in Studies 5 and 6 later in this thesis (Chapter 4).

Group-level outcomes of benevolent sexism

[1] Please note that I make no a priori predictions based of such groupings. Likewise, note that such labels are not meant as rigid groupings and merely serve to aid navigation of this next section

Central to BS is gender differentiation, whereby women and men are considered distinct social groups with essentially different traits, beliefs and behavioural tendencies. Men and women's supposedly different traits, beliefs, and behaviours are considered to complement one another. According to Glick and Fiske (1996), belief in these differences serves to legitimise discrimination along group lines. This first set of outcomes examine the group-level outcomes of BS: those that are concerned with power and status relationships between men and women, conceptualized as social groups. These include support for equality, gendered violence or sexual assault, sexist humour, and control of women's sexuality and reproduction. Each of these outcomes is either explicitly, in the case of collective action, or indirectly, in the case of sexist humour, linked to the maintenance or subversion of men's dominant position.

Scholars have argued that one of the most pernicious effects of BS is its ability to legitimise current power and status differences between the sexes (Becker & Wright, 2011; Glick & Fiske, 2011; Jost & Kay, 2005). According to AST, the unique benefits that BS offers women (e.g., adoration and preferential treatment) mollify the more unpalatable and hostile aspects of gender relations (Glick & Fiske, 1996, 1997). Indeed, experimental research has shown exposure to BS and complementary sexism (i.e. HS and BS together) increases perceptions that current gender relations are fair and legitimate (i.e. diffuse system justification; Jost & Kay, 2005). In contrast, exposure to no sexism, or HS only, did not increase perceived fairness of the gender system.

The unique benefits that BS offers to women not only serve to legitimize current gender relations, but also reduce women's engagement in actions to change the status quo. Becker and Wright (2011) posited that exposure to BS should, in line with its system justifying function, increase perceptions of "benefits to being a woman" and the fairness of current gender relations. In turn these perceptions will reduce willingness to engage in

collective action for gender equality. To test this, women were exposed to BS, HS or gender-neutral statements. Compared to gender-neutral statements, women exposed to BS (and complementary sexism) reported lower intentions to engage in collective action, and engaged in fewer actual collective action behaviours (i.e. petition signing and flyer distribution). Further, perceived benefits of being a woman and system justifying beliefs mediated the relationship between BS and collective actions.

Research has also examined the relationship between BS and men's support for or opposition to the status quo. The findings have generally been more mixed. For example, some researchers have found that endorsement of BS is unrelated public forms of support for gender equality (e.g. signing a petition, taking part in a march; Sudkämper et al., 2018). Others have shown that men's BS is positively associated with some specific forms of support for equality (Hideg & Ferris, 2016). For example, men's levels of BS are positively associated with support for affirmative action policies, albeit only in feminine typed roles (e.g. HR management, administration)

Support for equality is not only conferred by public demonstrations but can also be conceptualised at a private level. One example is men's willingness to share domestic duties and childcare responsibilities with their partner. Using this operationalisation, Sudkämper et al. (2018) tested heterosexual men's *domestic* support for equality. On one hand, since BS entails intimacy, commitment, and investment from men in heterosexual relations, it might be expected to be positively related to these behaviours. On the other, since BS ascribes to women traits suited to domestic roles (selflessness, refinement), it might be expected to be negatively related to domestic support for equality. Men rated their domestic support for equality, and endorsement of sexist attitudes. Sudkämper et al. (2018) found that men high in BS were no more likely than men lower on BS to take action to support gender equality by sharing domestic duties equally with their partners. Likewise, a study of Spanish teenagers

found that BS was unrelated to self-reported levels of housework for boys, but was positively related to girls' levels of housework (del Prado Silvan-Ferrero & Bustillos Lopez, 2007). In sum, although BS may not lower men's commitment to housework, it appears to increase women's, and therefore contributes to sustaining inequality in this domain

Benevolent sexism encourages commitment to not only domestic work, but to traditional roles more broadly including norms about deference to male authority. As such, women who flout such norms are at risk of experiencing backlash from those who endorse BS ideology. For example, in a study of attitudes toward domestic violence, people in Turkey and Brazil were asked to complete the ASI and a measure of domestic violence beliefs (Glick, Sakalli-Urgurlu, Ferreira & Aguiar de Souza, 2002). This included a measure of propensity to minimize abuse and legitimize violence (e.g. because the woman disobeyed her husband's wishes). People high in BS (at zero-order) minimized and legitimized the assaults perpetrated by husbands more than those low in BS. Importantly, the act was justified because the woman had not deferred to her husband's wishes. Similarly, in a cross-national investigation of domestic violence, Japanese and American people who endorsed BS were also more likely to blame women for an assault perpetrated by their partner (Yamawaki, Ostenson, & Brown, 2009).

Like deference to male authority, women are also expected to meet men's emotional support and intimacy needs. Women who fail to do so may be ridiculed as too dumb to satisfy men's needs. Culturally these ideas are most prevalent in sexist humour and epitomised by the dumb blonde joke. Research shows that benevolent sexist men and women are likely to react differently to such humour. For example, Greenwood and Isbell (2002) exposed men and women to a conversation between two men, where one of the men speaks about his girlfriend being a dumb blonde and then proceeds to tell a dumb blonde joke. Following this, participants rated the funniness and offensiveness of the joke. Men high (vs. low) in BS rated

the joke as more amusing. Conversely, BS women found the joke more offensive, insofar as it derogates the idealised image of women. In a related study, Eyssel and Bohner (2007) asked men to rate the funniness and offensiveness of sexist and non-sexist jokes and observed a positive relationship between men's BS and enjoyment of sexist jokes. It would appear that at least for men endorsing BS leads to greater tolerance of humour at women's expense. In contrast, for women it is likely that the content of such humour dictates reactions.

In addition to meeting men's emotional and intimacy needs, upholding traditional standards of morality (i.e. modesty and sexual chasteness) for women is central to BS. Violation of these norms leads to unfavourable evaluations. For example, in a study of attitudes toward breastfeeding Acker (2009) showed men and women images of a mother breastfeeding either in a public or private setting and asked them to evaluate her behaviour. In keeping with traditional modesty concerns, benevolent sexist men rated breastfeeding as more offensive, less normal and disapproved of the behaviour when it was in public, rather than in of private. Reactions to violations of chastity norms have been examined using acquaintance rape scenarios. In a study by Abrams and Viki (2002), the victim was described as either married (i.e. violating traditional morality codes for women) or no marital status was given. Men and women who endorsed BS were more likely to blame the woman for her assault if she was engaging in an extramarital affair and this relationship held when HS and rape-myth acceptance were adjusted for.

Blaming rape victims is motivated by male control of female sexuality and one reason to seek control of women's sexuality is to control their fertility (Rothman, 1944). This reasoning is consistent with both the evolutionary and socio-biological perspectives, which suggest that men will seek to control women's reproduction either through dominance (i.e. sexual coercion), or through intimacy (i.e. pair bonding). AST suggests that both of these strategies are accounted for by HS and BS. It also suggests that BS is the more successful

approach – engendering compliance and smooth social relations. As such, men in particular (but also women) who endorse BS are more likely to want to control women's reproduction. Indeed, an increasing body of research shows just this. For example, Sutton, Douglas and McClellan (2011) tested the influence of benevolent beliefs on attitudes toward pregnant women. Students completed the ASI, and two-months later in a seemingly unrelated survey rated the perceived safety of different behaviours (e.g. eating unpasteurized cheese, exercising) for pregnant women, and their willingness to restrict such behaviours was measured. Participants high, compared to low in BS considered the behaviours to be less safe and were more willing to restrict pregnant women from engaging in such practices. Likewise, benevolent sexists are willing to deny women bodily autonomy. In cross-sectional surveys BS (but not HS) is negatively related to support for both elective (i.e. without medical reason) and traumatic (i.e. where the mother's life is at risk) abortion (Huang, Osborne, Sibley, & Davies, 2014; Osbourne & Davies, 2012). More recently, a longitudinal survey of New Zealand adults found that as expected BS (but not HS) predicted opposition to both elective and traumatic abortion after one year (Huang et al., 2016).

Relational outcomes of benevolent sexism

The previous set of outcomes demonstrated the influence of BS on relations between men and women at a group level. However, benevolent sexism not only has a higher order influence on macro-level outcomes, but is also an important personal ideology which guides behaviour, beliefs, and attitudes of individual men and women. In particular, men's protection and provision for the women in their lives is central to benevolent sexism. As such, BS has been shown to be important in interpersonal relations, including heterosexual romantic relationships and close cross-gender familial relationships. This next set of outcomes demonstrates the influence of benevolent sexism in such relations including acceptance of paternalism, dating practices, relationship expectations and interpersonal

attraction. Each of these outcomes reflects the extent of benevolent sexism's influence in relationships and therefore has important implications for women's personal and romantic lives.

The protection of and provision for women as prescribed by paternalism is central to BS and research shows that it influences women's behaviours, preferences and expectations in close relationships. For example, Moya and colleagues (2007) investigated women's reactions to paternalistic justifications on restriction of their behaviour. In one study, female law students imagined being offered an internship interviewing criminals and were told that their romantic partner objected to this. Objections were either based on personal safety concerns (e.g. "it would not be safe for her") or group-based safety concerns (e.g. "it's not safe for women"). When the individual protective justification was given, no effect of BS was found, with both high and low BS women accepting this justification. However, when the gender-based justification was put forward only BS women accepted this justification, even though both women high and low in BS perceived the group-based justification as discrimination.

Likewise, endorsement of BS influences women's dating preferences. Patyner and Leaper (2016) asked men and women to rate their preferences for different types of traditional dating behaviours. These included men initiating the date, men paying for the dates, and women taking a spouse's last name if married. Endorsement of BS was positively related to preference for traditional dating practices among men and women. Related research by Hammond and Overall (2013) showed that BS affects men and women's relationship expectations, including belief in romantic destiny between partners, that disagreement is destructive, and that partners should be able to know what the other is thinking and feeling without being told (i.e., mindreading). For men, only a belief in mindreading was positively

related to benevolent sexism. However, for women a positive correlation between all three components of unrealistic relationship expectations and benevolent sexism was observed.

Benevolent sexism does not only influence the dynamics in close relationships, but has also been shown to be related to heterosexuals' preferences in potential romantic partners. Indeed, research shows that men who endorse BS prefer women who aspire to traditional feminine stereotypes (see Swami, 2011 for review; Swami & Tovee, 2013). Likewise, for women embracing conventional beauty standards (e.g. thin, cosmetic use, large breasts) is a means of fulfilling conditions set by BS to gain related benefits from men (i.e. adoration, devotion, protection). For example, in a study by Swami et al. (2010) investigating beauty ideals, men and women selected which of five body types (ranging from severely underweight to obese) they found most attractive. Men's but not women's BS uniquely predicted preference for thinner bodies which meet traditional feminine beauty ideals. In addition BS was associated with greater body dissatisfaction among women. In another study investigating women's body image in the United States and Poland, women rated their ideal body size, and the ideal body that most women would like to have (Forbes, Doroszewicz, Card & Adams-Curtis, 2004). For Polish women, endorsement of BS was negatively related to the ideal body size of other women, meaning women high in BS perceived other women to endorse the traditional (thin) beauty ideal. For American women no relationship was found between BS and ideal body size. The authors suggest that this effect is due to the cultural differences between the two countries. Since Poland is a more traditional country, with relatively more fixed gender roles women will be more likely to endorse thinness as a means of attaining benefits of BS. Taken together, these findings suggest that BS influences both men and women's heterosexual preferences.

Intrapersonal outcomes of benevolent sexism

Research reviewed in the last section demonstrates that paternalism and traditional gender norms as prescribed by BS are influential in heterosexual relations. Indeed, central to benevolent sexism's influence is the valorisation of women's warm dispositions. However, this also implies that women are weak and in need of protection from men. In this way, BS operates a system of reward and punishment for women, that promotes a focus on securing prestige in feminine domains only. In pursuing these gendered rewards and avoiding the punishments, women are encouraged to evaluate themselves through the lenses of traditional, so-called benevolent expectations. As such benevolent sexism influences many intrapersonal outcomes, including psychological adjustment and life satisfaction, psychological entitlement, self-objectification and body modification, achievement and even cognitive functioning. The first two outcomes, life satisfaction and psychological adjustment are discussed in respect of their influence on both men and women. The remaining outcomes focus on women's experiences only. The large variety of outcomes in this section highlights the many different ways in which endorsement and exposure to benevolent sexism can influence individual functioning.

One of the rewards of embracing benevolent sexism is an increase in self-reported life satisfaction and psychological adjustment. At first glance this is perhaps the most counterintuitive outcome of BS. However, theoretically this relationship makes sense. Based on system justification theory BS should have a palliative effect for people, whereby presenting gender differences as natural and complementary legitimises unequal power and status differences between the genders. Greater perceptions of parity in gender relations then will reduce negative affect and increase subjective well-being, including life satisfaction (Jost & Hunyady, 2005; Napier & Jost, 2008). Indeed, numerous researchers have reported this basic positive relationship between BS and life satisfaction for both men and women (Connelly & Heesacker, 2012; Napier, Thorisdottir & Jost, 2010; Hammond & Sibley, 2011).

In one of the earliest investigations, Napier et al. (2010) reasoned that in countries where national level gender inequality is low (i.e. those which value equality as a cultural norm) complementary justifications (HS and BS) for prevailing inequality will be necessary to elicit palliative effects. This is because in combination BS and HS present current gender relations as fair - inequality is the legitimate outcome of complementary gender differences. In contrast in countries where gender inequality is high, HS justifications only should be sufficient to justify inequality and thus elicit palliative effects. Across 32 nations, they found that as expected in more gender equal countries only complementary sexism bolstered system-legitimizing beliefs which led to greater life satisfaction. In less gender equal countries HS justifications only were sufficient to justify the system leading to greater life satisfaction.

However, other researchers suggest that the underlying mechanism is weaker for men than for women. For example, in a large representative sample of New Zealanders believing that the gender system is fair (i.e. gender-specific system justification) fully mediated the relationship between BS and life satisfaction among women. For men, this relationship was only partially mediated by believing gender relations are fair (Hammond & Sibley, 2011). In other words, BS increases life satisfaction for women because it legitimises gender inequality. For men, BS influences life satisfaction directly, but also indirectly. In tandem, these findings suggest that people who believe men should (and do) use their greater power for the benefit of women are happier because they believe gender relations to be ultimately balanced.

In addition to influencing men and women's happiness, believing that men and women have distinct yet complementary roles influence people's expectations in romantic relationships Hammond, Sibley and Overall (2014) tested a longitudinal model of psychological entitlement and its association to benevolent sexism. For women who score

high on psychological entitlement (e.g. the belief that you deserve the best in life), BS may be an appealing means to attain the desired reverential treatment from men. By contrast, for men BS does not offer material benefits but rather stipulates a willingness to make material sacrifice for their partners. As such BS should be more strongly related to psychological entitlement among women, than men. Initially men and women completed measures of BS and psychological entitlement and then reported their endorsement of BS one year later. As expected, a positive relationship between BS and psychological entitlement was observed for women at time one, and psychological entitlement was associated with increased BS over one year. For men, there was a weaker cross-sectional relationship between BS and psychological entitlement and no longitudinal effects. In sum, some women may endorse BS as a sure-fire means of attaining reverential treatment because BS stipulates that women are morally deserving of benefits from men.

To attain such exclusive benevolent treatment women must uphold their end of the bargain through the valuation and conformity to traditional beauty standards. Indeed correlational research has found that women who endorse BS are more likely to believe beauty is important and to engage in appearance maintenance (e.g. cosmetic use; Forbes, Collinsworth, Jobe, Braun & Wise, 2007; Forbes, Doroszewicz, Card & Adam-Curtis, 2004; Franzoi, 2001). Further, BS focuses women's attention on external (rather than internal) attributes which will help them gain male prestige. In an experimental investigation, Calogero and Jost (2011) exposed women and men to either BS, HS, Complementary or no sexism, in a supposed proof-reading task. Following this, participants rated their propensity to the view the self as an object to be evaluated, focusing on extrinsic rather than intrinsic attributes (i.e. self-objectification) and related evaluations of the body (i.e. body shame). While exposure to sexism had no effect on men's self-objectification or body shame for women exposure to BS and complementary sexism, but not HS increased self-objectification and body shame.

In addition to increasing focus on attainment in feminine domains, benevolent sexism reduces attainment in non-feminine domains. In other words, it reduces women's motivations in domains which are not valued by men. For example, Montañés et al. (2012) examined the influence of BS on academic and career goals. Teenage girls rated the importance of traditional goals (e.g. to get married, be attractive to men), academic goals (e.g. to go to university, get good grades) and completed a measure of sexism. As expected, a negative correlation was observed between BS and academic goal pursuit, and a positive correlation was found with traditional goals. In a related study by Farkas and Leaper (2016) found that female high school students' endorsement of BS predicted lower interest in future career in STEM.

One way that BS undermines women's achievement then is by lowering their motivation, another way is through lowering cognitive functioning. Dardenne, Dumont and Bollier (2007) reasoned that because BS is less easily identifiable as sexism, women are more likely to attribute negative performance feedback internally rather than externally (e.g., to an evaluator). This in turn increases intrusive thoughts, compromising working memory capacity and leading to lower task performance. To test this reasoning, they exposed women to HS, BS or no sexism in an interview paradigm, across four experiments. Participants' working memory capacity was tested using a reading span test (RST). They found that exposure to BS, but not HS reduced working memory performance indirectly via self-doubt. Further, this effect could not be attributed to differences in motivation, or negative affect – which were equivalent to levels experienced in the HS condition.

Using similar methodology, Dumont, Sarlet and Dardenne (2010) found that compared to HS, exposure to BS increased women's response latencies in an RST, but did not affect the accuracy of responses. Finally, using a modified manipulation to focus on the gender differentiation (i.e. "women are more sophisticated") component of BS, Dardenne et

al. (2013) found no significant effect of sexism type (HS, BS or no sexism) on women's RST performance. Likewise, the effect of BS on self-reported mental intrusions and increased performance anxiety also failed to replicate. However, using fMRI techniques areas exposed to BS (but not HS or no sexism) activated areas of the brain typically associated with working memory and the ability to suppress intrusive thoughts. At best, findings are mixed on the influence of BS on women's cognitive performance. However, it does appear that exposure to BS uniquely influences brain activity in regions associated with thought suppression. However, it is unclear whether this supposed extra load influences performance consistently.

People's understanding of Benevolent Sexism

It is clear then from the preceding review of the literature that BS affects women and men in myriad ways. However, what is less clear is whether women (and men) understand BS and its influence in the maintenance of unequal gender relations. From the theory and research on ambivalent sexism, two key perspectives can be discerned to explain *how* benevolent sexism (BS) serves to reduce women's resistance to the status quo. One perspective can be described here as the *knowing bargain hypothesis* (also referred to as the protection racket hypothesis), whereby women may be aware of their subordinate position, and so accept BS to benefit from men's chivalry while being protected from their hostility (Glick & Fiske, 1996; 2001). This interpretation suggests that women effectively give up on the aspiration to achieve perfect gender equality but accept BS as partial compensation and mitigation of their subordinate position. Indeed, Glick and Fiske (2001) succinctly posited "Benevolent sexism is disarming. ... It promises that men's power will be used to women's advantage, if only they can secure a high-status male protector" (p. 111).

This perspective reflects a social contractarian approach to social relations (Locke, 1689/1988; Rawls, 1971/1999). At its most basic this perspective posits that people are self-interested and rational agents who choose to act in moral ways as a means of attaining self-

interest. Acting morally and cooperating with others are considered a rational choice. Central to achieving individual goals then are *social contracts,* which prescribe cooperation amongst both parties in accordance with a set of principles. Rawls (1971/1999) argues there are two Principles of Justice which regulate all social contracts and society more generally. These are the Two Principles of Justice. The first principle states that civil liberties should be applied to all peoples equally. Of more relevance to the current argument is the second principle, which states that social inequality can be just as long as the opportunities to attain social, political and economic advantage are equal. Likewise, such inequalities should benefit everyone - simply put, inequality can be just if the most disadvantaged party is still better off within the social contract than outside of it. Applying this to gender relations then, women who accept BS, can be considered better off (i.e. receiving male reverence and material provision), then if they do not accept BS, especially in nations where the threat of HS is high. By this reasoning then, social contracts between men and women (and ultimately gender relations) can be viewed as just.

This hypothesis has received indirect support from several lines of research. For example, women's endorsement of BS is higher in countries in which men endorse HS, and higher in countries with more gender inequality (Glick et al., 2000; Napier et al., 2010). This is consistent with the notion that they see BS as offering some protection from men's hostility. Similarly, other research findings show that BS motivates women to fulfil their end of the social contract by upholding traditional gender norms. For example, BS is also associated with women's sexual self-objectification and appearance modification (make-up use, cosmetic surgery; Calogero & Jost, 2011; Forbes, Doroszewicz, Card & Adam-Curtis, 2004; Franzoi, 2001). In a study by Forbes, Jung and Haas (2006) of university and community women BS was associated with increased cosmetic use but only in a dating scenario. In other words, women who endorsed BS were more likely to use cosmetics when

going on dates but their levels of BS were unrelated to wearing make-up more generally. In a related study, Forbes and colleagues (2007) found BS was positively associated with beliefs about the importance of beauty and upholding traditional beauty practices (e.g. hair removal). Likewise, recent research has shown that BS is associated with enjoyment of self-sexualisation (e.g. feeling empowered by being attractive; Liss, Erchull & Ramsey, 2011). All of these findings are consistent with the idea that BS motivates women to obtain benefits from men through the pursuit and securing of heterosexual intimacy. In particular, the fact that BS women are no more likely to wear make-up than non-BS women, unless there is a possible intimate interaction with men reflects this motivation clearly (Forbes et al., 2006; Franzoi, 2001). Thus, it appears that women might understand at least some of the implications of BS, and therefore knowingly accept or at least live according to the ideology because they believe it will offer them some compensation.

Another hypothesis is that BS is a form of *false consciousness* for women and is endorsed by them even though – or because – they do not grasp its implications. In unequal social systems, a false consciousness is assumed by the subordinated group to make hostile or unfair treatment palatable (Jost & Banaji, 1994; Jackman, 1994). Consciousness can be said to be "false" if it does not represent the best interests of an individual or their group, but rather advances the interests of a dominant outgroup. As such, subordinate groups are likely to internalise the dominate groups' beliefs which legitimise inequality as the consequence of their own inferiority rather than structural disadvantage.

The concept of false consciousness was first discussed by Marx, although he did not explicitly label it as such. From a Marxist perspective, the dominant upper classes, through the control of cultural and economic institutions, propagate ideologies that serve to legitimise their greater status and power (Marx & Engels, 1846; Jost, 1995). Later, Jost and Banaji (1994) brought the idea of false consciousness into social psychological theorising on

inequality and stereotyping with their System Justification Theory. Jost and Banaji (1994) reasoned that group-based stereotypes justify current status differences between groups (i.e. system differences) by presenting inequalities as the outcome of inherent differences in groups' dispositions and motivations. Moreover, disadvantaged group members are inclined to adopt these stereotypes and internalise ideologies which justify the social and political status quo. The literature has identified a number of ways in which false consciousness is manifest including a failure to recognise disadvantage (i.e. just world beliefs; Lerner, 1980), justification of social hierarchy (i.e. social dominance orientation; Sidanius & Pratto, 1999) and opposition to change (i.e. political conservatism; Jost, Glaser, Kruglanski & Sulloway, 2013). In each of these cases, inequality is legitimized through the assumption of some false belief (e.g. everyone gets what they deserve; some groups are naturally superior) about the reality of intergroup relations.

Thus, BS may operate similarly to these legitimizing ideologies and mask gender prejudice and inequality through a deceptive moral justification of the gender status quo that binds the interests of the two gender groups together (Mill, 1869/1970). Indeed, researchers have suggested that BS functions as a form of false consciousness for women, allowing them to maintain positive ingroup esteem and explain gender-based inequality (Becker, 2008; 2010; Jackman, 1994, 2005). In this way, Rudman and Fetterolf (2014) describe BS as "insidious" (p. 276) and an ideology that "continues to hide under the veil of chivalry" (p. 283). Kilianski and Rudman (1998) describe the positive relation between BS and HS as "counterintuitive" (p. 334). This perspective also draws some indirect support from empirical findings. Like other legitimizing ideologies associated with false consciousness (see Jost & Hunyady, 2005 for a review), BS reduces negative affective and dissonance reactions to women's unequal treatment and lower status. Advantaged (i.e. men) and disadvantaged (i.e. women) group members who endorse BS also report experiencing greater life satisfaction and

fewer negative emotions associated with perceived inequality (Jost & Hunyady, 2005; Napier, Thorrisdottir, & Jost, 2010).

Further, when directly told about the consequences of BS, women recognize it as a form of sexism and endorse it less. In one of the first studies of its kind, Becker and Swim (2011) asked women and men in the US and Germany to complete daily diaries of sexist experiences (or in the control condition – interactions with the opposite gender not considered sexist). In the sexism diary condition, participants were asked to rate specifically how often they had observed different types of sexism ranging from more subtle (e.g. hearing gender stereotypes) to hostility (e.g. verbal abuse/unwanted sexual attention). Becker and Swim (2011) reasoned that women's levels of BS would be reduced if they were encouraged to attend to these types of experiences, especially in the context of other experiences that are recognised as prejudice. Women who attended to sexism, rather than just gender interactions reported lower levels of BS, and this difference was significant at one-week follow-up. Likewise, attending to sexist incidents reduced the attractiveness of a hypothetical BS man and increased perceptions he was sexist. For men, keeping track of sexist experiences did not affect their endorsement of BS. Moreover, compared to women, men were less likely to empathise with women who experienced BS – perceiving targets of BS to experience less negative affect.

In a related investigation, Becker and Swim (2012) delineated the influence of information about the harm versus prevalence of BS. In two experimental studies they found that exposure to information about benevolent sexism's harmful effects (i.e. that it maintains gender inequality), but not its prevalence reduced endorsement of BS. Further, this intervention increased identification of a BS dating profile as sexist and less attractive. This evidence lends some support to the hypothesis that BS is not part of a knowing bargain or

compromise, but rather is fundamentally a deception, relying on false consciousness to disarm and stifle resistance.

Which of these perspectives is most accurate has important implications not only for theoretical conceptualizations of sexism but also for how to challenge sexism and gender inequality: for example, whether it is useful to raise consciousness about BS and its functions (Becker, Zawadzki, & Shields, 2014). Arguably, it also has implications for the ultimate legitimacy of sexism and gender inequality; at least for those who believe that social arrangements should be characterized by some kind of informed consent (Kant, 1797/1999; Rawls, 1971/1999). However, to date, few studies have examined how well people understand BS and its correlates and consequences.

Perceptions of the relationship between Hostile and Benevolent Sexism

The knowing-bargain and false-consciousness hypotheses for BS differ on one key empirical point: whether people understand the consequences of BS. Naturally, considerably more research has been conducted on the consequences of BS than on people's understanding of how BS contributes to those consequences. Most of the latter research has focused on two key issues: whether people recognise BS as a form of sexism, and whether they appreciate that it is compatible and positively correlated with HS.

In the first studies to address people's understanding of ambivalent sexism, women were presented with dating profiles of men who expressed HS or BS attitudes, and asked to report how likely it was that the profiles described the same man (Kilianski & Rudman, 1998). The supposed HS man was presented as believing "women undervalue men and […] use men for their own ends" (p. 349). In contrast, the BS man was described as thinking "women have a more highly developed […] moral sense than do men" but "sees women as being in need of male protection and as entitled to special treatment" (p. 350). Participants considered it unlikely that hostile and benevolent profiles belonged to the same person,

suggesting people hold antagonistic perceptions of HS and BS. Moreover, this belief was negatively associated with participants' approval of BS, but disapproval of HS (equivocal egalitarianism).

Consistent with these findings, Barreto and Ellemers (2005) found that participants liked benevolent sexists more, and subsequently viewed them as less sexist, than hostile sexists. This effect also extends beyond romantic contexts, with BS interviewers perceived as less sexist relative to those who express HS or no sexism (Dardenne et al., 2007). Taken together, these findings provided the first evidence that people see HS and BS as divergent attitudes, and that evaluative judgments about the source of sexism are important to perceptions of prejudice. However, none of these studies directly measured the perceived correlation between HS and BS, nor did they test the role of warmth in the perceived association between HS and BS.

Other researchers have suggested that women really do understand the connection between HS and BS. In a modified replication of Kilianksi and Rudman's (1998) work using a factorial design, Bohner, Ahlborn and Steiner (2010) asked women to rate the typicality of four dating profiles. Participants were given the supposed "response profiles" of four different men who varied in their levels of agreement with HS and BS. This resulted in distinct profiles describing a BS (high BS, low HS), a HS (high HS, low BS), an ambivalent sexist (high in both HS and BS) and non-sexist man (low on both). Participants were asked to rate the typicality and the likability of each of the targets. Bohner and colleagues reasoned that if women perceive positive covariation between HS and BS, then they should rate the ambivalent sexist profile as more typical than either of the univalent profiles. In an initial study, women perceived the ambivalent sexist to be most typical compared to HS, BS and non-sexists (see Study 2). However, the non-sexist man's profile consisted of only disagreement responses, potentially eliciting an impression of the non-sexist as a negative

and therefore unlikeable person. In a final study, Bohner et al., corrected this by including some filler responses which were positive and held constant across profiles. Again, women rated the ambivalent sexist (M = 3.68) as more typical than the BS profile (M = 3.13). However, the mean typicality differences compared with HS (M = 3.83) or non-sexist profile (M = 3.65) disappeared. This result clearly shows that people think HS and BS can coexist and even that they commonly coexist within the same person, although not at consistently greater levels than non-sexist or solely hostile attitudes to women.

Bohner and colleagues show that HS and BS are considered likely to co-occur, however they do not establish that people think that HS and BS are positively related. Since people tend to think that men are high in both HS and BS (Sibley et al., 2009), they will think the ambivalent sexist profile is common even if they do not perceive any correlation between HS and BS. By analogy, most men have two arms, and most men watch television. A man with two arms and who watches television is likely to be viewed as more typical than a man who lacks either or both of these attributes. This does not imply, however, that people see these attributes as positively correlate: in other words, that men with one or fewer arms are less likely to watch TV. Ultimately, Bohner and colleagues claim that people understand the BS-HS correlation is unfounded as they obtained no direct measure of the perceived relation between HS and BS.

More recently, Rudman and Fetterolf (2014) assessed the perceived relation between BS and HS by asking participants to indicate others' levels of the two types of sexism. They found that ratings of others' BS and HS were negatively correlated (r = -.59). This result provides the strongest evidence yet that there is an "illusion of antagonism" (p. 276) between HS and BS. However, Rudman and Fetterolf's study did not include mediators or moderators to enable identification of the psychological mechanism underpinning this illusion. Further, it employed a correlational design, and therefore stops short (strictly speaking) of establishing

that people infer that BS and HS are antagonistic to each other. Some third factor may cause metaperceptions of BS and HS to increase in opposite directions. Stronger evidence would be provided by showing that protagonists experimentally described as high (vs. low) in one type of sexism are perceived as low (high) in the other.

A limitation of most research on people's understanding of sexism so far has been the focus on male protagonists (although see Rudman & Fetterolf, 2014 for an exception). In these studies, participants are presented with male protagonists who display varying types or levels of sexism or are asked to ascribe sexism to male protagonists (Barreto & Ellemers, 2005; Kilianksi & Rudman, 1998; Bohner et al., 2010). This emphasis is in keeping with the special ideological significance of men's endorsement of BS. Findings indicate that men who display benevolent sexism are rated favourably (e.g., Barreto & Ellemers, 2005; Good & Rudman, 2010; Viki, Abrams & Hutchinson, 2003). Men who offer benevolent justifications for restrictions on women's behaviour are seen as kind and caring toward women (Moya, Glick, Exposito, de Lemus & Hart, 2007). In contrast, men who express hostile sexist attitudes are more readily identified as sexists (Barreto & Ellemers, 2005; Swim, Mallet, Russo-Devosa & Strangor, 2005).

Thus far, then, research has established that people do not always understand the relationship between HS and BS correctly (Glick & Fiske, 2001; Jackman, 1994; Rudman & Fetterolf, 2014), although there are some contrary findings (Bohner et al., 2010). Theory suggests that people are especially unlikely to understand this relationship when it is displayed by men. Men who sign up to BS are indispensable for the legitimacy of the wider gender system and are likely to be valorised as self-sacrificing providers and protectors (Glick & Fiske, 2001; Jackman, 1994; 2005). This suggests that when it is displayed by men, BS may be especially likely to be perceived as a straightforwardly altruistic and beneficial

attitude. In turn, this suggests that perceptions of warmth may play a special role in the misunderstanding of BS.

The Role of Warmth in people's understanding of benevolent sexism

From the preceding discussions, it is clear that at least men who express hostile (HS) and benevolent (BS) sexist attitudes are evaluated differently. In this next section, I argue that the departure in affective tone between HS and BS may account for the assumed negative association between the two forms of sexism. In other words, the perceived warmth of benevolent sexism is central to the illusion of antagonism and misperceptions of benevolent sexism more broadly. Indeed, warmth is considered the cardinal trait in impression formation and it organises how people see one another (Abele & Wojciske, 2014; Cuddy, Fiske & Glick, 2008; Ybarra et al., 2008). As such, it represents a potential key dimension on which men who hold benevolent and hostile sexist attitudes will be seen to vary. Further, since perceivers tend towards consistency in their attributions about others (Heider, 1958a), I expect that benevolent sexists will be seen as having warm and positive beliefs and attitude more generally.

Fundamental dimensions of social perception

Warmth, together with competence, is considered to be one of the "Big Two" dimensions in social cognition. Research has shown that these are key dimensions in judgements about the self, others, groups of others, and nations (Abele, Uchronski, Suitner & Wojciszke, 2008; Fiske, Cuddy & Glick, 2007; Paulhus & Trapnell, 2008). According to the Stereotype Content Model (Fiske, Cuddy, Glick & Xu, 2002), warmth and competence are universal dimensions of social perception to the extent that they correspond to key questions for human survival. First, an individual wants to understand unknown others' intentions toward them. Warmth provides such information about an individual or groups' cooperative tendencies toward the self – are they are an ally or an enemy? Research shows that warmth is

composed of two subdimensions: sociability and morality (Brambilla & Leach, 2014; Brambilla, Rusconi, Sacchi & Cherubini, 2011; Goodwin, 2015). An individual's sociability is represented by traits such as friendly and kind. A person's morality is conferred by traits such a sincere and trustworthy. Second, individuals want to understand whether others' have the ability to carry out their intentions. Competence confers such information and is measured by traits such as intelligence, confidence and skilful (Abele et al., 2016; Fiske et al., 2002).

Numerous labels have been used in the literature to describe essentially the same two dimensions of social perception. Wojciszke and colleagues have labelled their dimensions as morality and competence (Wojciszke, 2005; Wojciszke, Bazinska, & Jaworski, 1998). Competence in this case is very close to the SCM version of competence (e.g. clever, efficient, and intelligent). Morality on the other hand is conceptualised slightly differently than warmth in the SCM, omitting the sociability element. It is measured using traits such as sincere, generous and fair. Likewise, an additional configuration of the two dimensions is communion and agency (Bakan, 1956; Abele & Wojciszke, 2007). In contrast to the SCM, Bakan conceptualised communion and agency as reflecting two states of being: communion representing existing in relation to others and agency for existing as an individual. These two are perhaps the most frequently used labels in the study of gender stereotypes, with communality being equated with femininity and agency with masculinity (see Eagly & Steffans, 1984; for a review, Rudman & Glick, 2008).

While some inconsistencies exist between the various conceptualisations, research has shown that these are largely superficial. Abele and Wojciszke (study 1, 2007) asked Polish adults to rate 300 traits on dimensions of communality, agency, femininity, masculinity, morality, competence individualism and collectivism. Groups of 20 participants rated all traits only on a single dimension. A two-factor structure was expected to best account for the data. As predicted a two factor-solution was found, accounting for 89% of the variance. The

first factor contained traits representing warmth (i.e. communion, morality, femininity, collectivism) and accounted for majority of the item variance (66.19%). The other factor comprised traits representing competence (i.e. agency, masculinity, individualism) and accounted for a third of the variance. These results indicate that regardless of labelling the two basic components of social perception are related to warmth (communion) and competence (agency). I will refer to these constructs as warmth and competence throughout this thesis.

While research evidence is clear that competence is an important dimension in impression formation, I do not consider it central to understanding benevolent sexism for two reasons. The first is that an individual or group's warmth is inferred from a clear lack of competition with the observer's interests (Fiske, et al., 2002). According to AST (Glick & Fiske, 1996), benevolent sexism presents men's interests in line with, rather than in competition with women's (as in the case for HS). In contrast, competence is about an individual or group's ability to undertake their intentions. This is important because AST does not suggest BS and HS differ on this dimension. In fact, both HS and BS imply that men are more competent than women. The second is that BS and HS are blatantly divergent in affective evaluations of women. Early research on AST shows that BS uniquely predicts positive attributions about women as kind, warm and sweet. In contrast, clearly negative attributions about women as cold, sly and selfish are predicted by HS (Glick et al., 1997: Glick et al., 2000, 2004). Taken together, it is clear that BS presents gender relations as cooperative and espouses a positive affective tone toward women, both of which indicate the relevance of warmth in perceptions of BS.

Causal attribution, cognitive consistency and the power of valence

Theorising and research indicates that that knowing something about an individual's warmth is adaptive, in a similar fashion knowing about the causal relationship between entities is adaptive. Causal relations are central to the perception of social actions (Read & Miller, 1989; Schank & Abelson, 1977). If causal relationships can be predicted with some accuracy then people can enhance their understanding of the world around them and increase adaptivity (Fösterling & Rudolph, 1988). Some of the earliest treatments of cause and effect come from Heider (1958a). Heider was influenced by the Gestalt principles of perception, in particular, the law of Pragnanz which proposed that perceivers are motivated to organise their perceptions into simple and consistent wholes (Crandall Silvia, N'Gbala, Tsang & Dawson, 2007; Rock & Palmer, 1990). The propensity to structure complex and multiple perceptions into simple "units" allows individuals to seek and identify the underlying cause of these perceptions (i.e. observed actions, behaviours, or outcomes). Heider's attribution theory was based on three steps: observing the action, identifying the intention behind the action and finally making an attribution about the action (Walther & Weil, 2012). For example, attributions can be made internally - there is something about the actor which caused the observation (i.e. traits, intentions, goals); or externally, some aspect of the situation (i.e. social context, peer pressure) resulted in the observed action (Gilbert, 1998; Ross, 1977). Such inferences allow a perceiver to explain observations in a parsimonious way, and achieve a unifying and consistent view of the world. Heider reasoned that because of this motivation toward consistency, people are more likely to attribute cause to fixed intrinsic properties such as traits.

Since Heider, many researchers have sought to understand the processes underlying causal attribution. One early conjecture – correspondent inference theory, posited that people rely on three factors when delineating internal and external attributions (Jones & Davis, 1965). These are the actor's choice (or not) to enact the behaviour, the intended goal of the

action and whether the behaviour was normative within the context (e.g. owing to role expectancy). The model has gained empirical support (see Jones & Harris, 1967; Erickson & Krull, 1999), however, Kelley's (1967) covariation model provided a more explicit explanatory process. Kelley suggested that people make attributions on the basis of co-occurrence between the property and action, and likewise the absence of the property when the action does not occur. Kelley's model proposed the influence of three factors on casual inference: consensus (i.e. whether others respond in the same way), distinctiveness (i.e. is the behaviours a distinct pattern) and consistency (i.e. the stability of the behaviour across occasions). This model still remains a cornerstone of attribution research and has been built on by numerous others, integrating the influence of control and emotions (Weiner, 1985), and goals (Read, Jones & Miller, 1990).

In addition to making causal inferences among objects, early theorising and research in social psychology found that people are also motivated to maintain consistency in their attitudes. Heider (1958b) proposed one of the first models of cognitive consistency with his *balance theory*. Like his attribution theory, balance theory was similarly influenced by Gestalt principles of harmony and structure. Heider reasoned that because attitudes represent knowledge structures which help people understand and predict the social world they ought to be consistent and unified. He believed there are two types of relations: unit relations and sentiment relations. Unit relations refer to the belief that two things go together. Perceptions of a unit relation between objects is influenced by perceptions of causality, similarity and proximity among others (Walther & Weil, 2012). Sentiment relations refer to judgements about the objects. For example, valence toward an object (i.e. degree of positivity or liking). When attitudes, beliefs or behaviours within a system are consistent with one another they are balanced. A system is unbalanced if attitudes are not consistent with one another. The typical example used by Heider is a triad in interpersonal relations. For example, there might be two

actors (A and B) and an attitude object (e.g. support for abortion). Actor A likes actor B, and Actor B does not support abortion, but actor A does. This triad is unbalanced to the extent that the product of these sentiment relations is negative. If Actor A liked actor B and both opposed abortion – then the product would be positive and the system would be balanced. Heider's theory of balanced interpersonal relations has received support from numerous empirical studies (Aronson & Cope, 1968; Curry & Emerson. 1970; Gawronski, Walhter & Blank, 2005; Insko, Songer and McGarvey 1974). Likewise, balance theory has been extended to more complex system structures, first by Cartwright and Harary (1956) and more recently by Read and Miller's (1994; 1989) parallel constraint satisfaction model of social perception.

From Heider's perspective (1958a, 1958b) consistency is central to attribution and attitude formation. Because we tend to see objects in unit relations with one another, we are likely to extend our evaluations of an individual (as positive or negative) to all objects that they are in a unit with – for example, their beliefs, attitudes or behaviours. In other words, the tendency towards balance results in the propensity to form univalent impressions of others and their related attitudes.

Central to the structuring of such unit relations are impressions of valence (Asch, 1946; Wimer & Kelley, 1982). Similarly, research shows that attributions are made on the basis of initial impressions about the target. That is, if the initial impression is positive of a target subsequent negative behaviour will be attributed externally rather than internally (Crocker, Hannah & Weber, 1983; Regan, Strauss & Fazio, 1974; Sande, Goethal, Ferrari & Worth, 1989). These results indicate that it might be difficult to understand actions which are divergent in valence. As such, it could be difficult for people to make sense of benevolent sexists. For example, if perceivers accept a positive attribution about a benevolent sexists'

beliefs or behaviours (i.e. that he is warm), it will be difficult for them to accept that a negative attribution is also true (i.e. that he agrees with HS or is sexist).

In support of this reasoning, Roese and Morris (1999) found that when two explanations are put forward for an observed behaviour – for example success on a test, people are liking to engage in discounting (e.g. ignoring one explanation, in favour of another; see Kelley, 1967, 1973) when the explanations have incompatible valence (e.g., ability versus cheating). When the two explanations had the same valence (e.g., ability and effort), attributions were made in a conjunctive fashion (i.e. the combination of both explanations was more satisfactory than either alone; see Leddo. Abelson & Gross, 1984). Likewise, an earlier study by Hull and West (1982) found a similar effect of valence on discounting attributions, but this investigation focused on the valence of the behavioural consequence, rather than global impression valence. Together, these findings indicate that because perceivers tend toward consistency in their attributions, they will likely see others as holding univalent attitudes.

The role of consistency in impression formation is clearly demonstrated in Asch's (1946), now classic, test of a possible "central trait" in person perception. In this key experiment (Study 1), participants rated a man described as highly competent (i.e. intelligent, skilful), but varying in his levels of warmth (either warm or cold). The manipulation of warmth led people to evaluate the warm man more favourably than the cold man. Asch concluded that his findings suggested the existence of a central trait in impression formation. This basic effect was replicated by numerous others, showing that varying warmth information influences related perceptions in a global fashion including perceptions of intelligence, sociability, role effectiveness and even perceived humanity (Kelley, 1950; Nisbett & Wilson, 1977; Widmeyer & Loy, 1988; Zanna & Hamiliton, 1972).

Influence of warmth in impressions of sexism

Since these early studies of impression formation, social psychologists have understood that warmth is perhaps the most general and influential dimension on which a person can be perceived. It has a bidirectional causal relationship with other social perceptions. That is, perceiving a person as warm leads to inferences about their other more concrete actions and attributes. Conversely, it is also readily and automatically inferred from more concrete behaviours and dispositions, such as smiling, donating to charity, or being free of prejudice (Bayes, 1972; Cuddy et al., 2008; Fiske et al., 2002). It is possible then that people who display benevolent sexism may be seen as warm and this perception could extend to attributions about a wide array of their attitudes, behaviours and character traits, including but not limited to its relationship with HS.

Indirect support for this conjecture comes from empirical findings suggesting that warmth is inferred from behaviour which benefits others (not the self), akin to paternalism. For example, in a study by Russell and Fiske (2008) participants were asked to complete warmth ratings of targets who they supposedly interacted with (in study 1) and actual interaction partners (in study 2). In both studies, targets who were perceived as cooperative (versus competitive) were considered warmer. In addition, participants were more likely to (incorrectly) attribute their trait ratings dispositionally to their interaction partner, when in fact the attribution was actually external (i.e. due to the cooperation manipulation). However, the manipulation of cooperation in these studies is restricted to a prisoner's dilemma paradigm and can hardly be considered comparable to complex interpersonal interactions.

In a related study, Cislak and Wojciske (2008) asked polish students to read a mock newspaper article about a politician who either acted in self-interest (i.e. for personal financial gain) or in the interest of others (i.e. for the town's gain). Compared to the self-interested politician, participants rated the politician acting in the interest of others as warmer. Likewise, in two separate experimental studies participants rated high warm (i.e.

sincere, trustworthy) targets as more likable than low warm targets and this effect was mediated by perceptions that the warm target was more likely to act in the interest of others (Wojciske, Abele & Baryla, 2009). Based on these findings and the theoretical reasoning of the SCM (Fiske et al., 2002) we could expect that because BS men's interests are presented as cooperative (rather than competitive) with women's they will be considered warm.

More direct support for this assertion comes from a related line of research investigating people's attribution of positive valence to benevolent sexist men and negative valence to hostile sexist men (Barreto & Ellemers, 2005; Moya, et al., 2007; Swim, et al., 2005). According to the functionalist perspective of warmth (Fiske et al., 2002; Cuddy et al., 2008), attributions about warmth are made based on whether the intentions of others are positive toward the self and are therefore likely to elicit positive affective (i.e. liking) responses. As discussed earlier in this chapter, a study by Baretto and Ellemers (2005) was one of the first to demonstrate the greater likability of benevolent sexists compared to hostile sexists.

More recently, this effect was replicated by Good and Rudman (2010) using a different experimental paradigm. In their study participants read a supposed interview script between a male interviewer and a female interviewee. The responses of the male interviewer were manipulated so as to represent BS, HS or non-sexist beliefs. For example, in the BS condition the interviewer states "this job requires familiarity with moving bulk products. But that can be a little dangerous – the guys would probably be happy to help a nice young lady like you". Participants then rated the favourability of the interviewer including how positive (i.e. kind, caring, compassionate) and negative (i.e. rude, offensive, sexist, hostile) they considered him to be. Results indicated that participants believed the BS interviewer was significantly less rude, sexist, offensive and hostile than the HS interviewer (albeit more negative than the non-sexist man). Importantly, the BS interviewer was seen as significantly

more kind, caring and compassionate than the HS interviewer, however there were no differences with the non-sexist man in ratings of positivity. This means that BS men were perceived as warm as non-sexist men, and less sexist than HS men, suggesting that BS men may benefit from enhanced perceptions of positivity and warmth which allows them to go unnoticed as prejudiced. More evidence still comes from Moya et al. (2007) who found that, compared to HS, BS men are considered more chivalrous, and their justifications for restricting women's behaviour was attributed to positivity toward women (e.g. he feels protective of me, he worries about me). Together, these findings indicate that benevolent sexists are not considered prejudiced (at least in the typical sense) and that they benefit from positive perceptions about them and their attitudes toward women.

Theory and experimental evidence are clear that benevolent sexists should be and are evaluated more positively than hostile sexists. The attribution of warmth to benevolent sexists has clear implications for how people understand benevolent sexism more broadly. One possibility is that the warmth of benevolent sexism will make it difficult for people to understand it accurately – that is, as an ideology with propagates gender inequality. Based on the principle of cognitive consistency in social cognition (Heider, 1958a, 1958b) people will (mis)perceive benevolent sexism and the men who enact it as not sexist, will be less likely to protest it and be less likely to see it as associated (positively) with HS, traditional gender role attitudes and outcomes which are antagonistic to women's interests. Importantly, through these processes people may actually see benevolent sexism (erroneously) as positively related to support for equality.

The present research

Concerted efforts have been made in the last two centuries to achieve parity in gender relations. Such efforts have resulted in large scale political, legal and societal change

(Jackson, 2006). Indeed, the Women's Movement is considered by some the "only successful revolution of the twentieth century" (p.392, Denby, 1996). This legacy has given rise in recent years to grassroots movements against sexual harassment, assault, overtly sexist remarks and discrimination against women, including #MeToo (Lawton, 2017) and the Everyday Feminism Project (Bates, 2012). These movements have been hailed as important steps toward equality in gender relations. Nonetheless, progress is slower than might be expected, given that for decades, gender equality has been pursued by governments, NGOs, and thousands of activists, and is enshrined as a principle of international law (OECD, 2017). As such, further investigation into the psychological processes underlying the maintenance and legitimisation of gender inequities is needed.

Psychological theorising and research suggest that alongside overt misogyny, paternalistic ideology works in tandem to perpetuate gender inequality. According to Ambivalent Sexism Theory (Glick & Fiske, 1996) gender inequality is maintained through an ideological system which derogates (Hostile Sexism), but also reveres women (Benevolent Sexism). Research suggests that these ideologies operate a complementary "carrot and stick" system of social control (Glick & Fiske, 1996, 2001). Indeed, the warm and sweet tone of benevolent sexism is thought to conceal from women its deleterious correlates and consequences. This include its positive relationship with hostile sexism, and also a host of group level, relational and intrapersonal outcomes. Two accounts have been put forward in the literature to explain *how* benevolent sexism acts to reduce women's resistance to the status quo. According to the *knowing bargain hypothesis* women accept BS as protection from men's hostility and compensation for their subordination, despite understanding that BS may ultimately contribute to their subordination. In contrast, the *false consciousness* account suggests that benevolent sexism is essentially a confidence trick which women accept because they do not appreciate its consequences.

Both of these perspectives have gained indirect support, but few studies have investigated people's understanding of BS directly. Early research findings have focused on whether people see BS as sexism and whether it is positively related to HS. Research evidence is clear that people do not identify BS as prejudice (Baretto & Ellemers, 2005; Swim et al., 2005). However, evidence is more mixed in respect of whether people appreciate its positive relationship with HS (Bohner et al., 2010; Kilianski & Rudman, 1998). Further, there has been no direct attempt to find out why people might incorrectly perceive an inverse relationship between BS and HS (Rudman & Fetterolf, 2014).

According to AST, a key dimension on which BS and HS differ is their warmth. Considered the primary dimension in impression formation warmth connotes an individual's cooperative (or competitive) tendencies toward the self. (Abele & Wojciske, 2014; Cuddy et al., 2008; Fiske et al., 2002). As such, it represents an important point of divergence for benevolent and hostile sexists – benevolent sexism casts men and women's interests as intimately interdependent. By comparison, hostile sexism presents gender relations as competitive. This difference is reflected in evaluations of benevolent and hostile sexists. Specifically, compared to HS men, BS men are seen as likable, caring and not sexist (Barreto & Ellemers, 2005; Good & Rudman, 2010). As such, warmth may make it difficult for people recognise benevolent sexism for what it is – an ideology that propagates inequality.

This potential influence of warmth in perceptions of benevolent sexism may arise from the tendency towards consistency in social cognition. Specifically, people organise their impressions of others into Gestalts – simple and unified wholes, which are consistent (i.e. compatible in valence) with one another (Heider, 1958a, 1958b). Because people see objects in unit relations, they are likely to extend their evaluations (either positive or negative) of an object to all others it is relation with (Crocker, Hannah & Weber, 1983; Regan, Strauss & Fazio, 1974; Sande, Goethal, Ferrari & Worth, 1989). As such if people perceive benevolent

sexists as warm they will also consider them likely to have warm and positive attitudes, beliefs and behaviours. By the same logic, people may find it hard to believe that a benevolent sexist would also hold attitudes or engage in actions which are divergent in valence (e.g., believing women are trying to control men, sexually harassing or catcalling women). In short, because people tend towards unified and consistent impressions of others, they will likely see others as holding univalent attitudes and thus make potentially erroneous judgements about benevolent sexism.

Such processes of cognitive consistency and the central role of warmth in impression formation have important implications for how people make sense of benevolent sexism. Therefore the aim of this thesis is to integrate research and theorising on cognitive consistency and warmth in person perception to investigate people's understanding of benevolent sexism. Specifically, each of the empirical chapters examines how perceptions of benevolent sexism's warmth influences the identification of BS as prejudice, reactions to BS including protest, the illusion of antagonism with HS and more broadly its relationship with group-level, relational and intrapersonal outcomes. Throughout these chapters, my studies test the central thesis benevolent sexism's warmth leads people to see it as inconsistent with and therefore negatively related to outcomes which are antagonistic to women's interests. These outcomes include the belief that it is not sexism, and is negatively related to HS, traditional gender role attitudes, blaming of rape victims, justification of domestic violence, controlling pregnant women's choices and enjoyment of sexist humour. By the same logic, I expect that people will see benevolent sexism (because of its warmth) as consistent with and positively related to outcomes in the interest of women including support for gender equality and abortion rights.

Outline of the following chapters

Chapter 2 addresses the potential role of warmth in shaping women's (under)reactions to benevolent sexism. In Study 1, a qualitative content analysis of posts from a popular anti-sexism website showed that women are less likely to protest experience of BS, relative to HS or gender stereotyping (Study 1). In Study 2, I asked women to recall their experiences of HS or BS. Women reported experiencing BS more frequently than HS, also reported protesting it less often. This effect was mediated by the relative warmth of BS. In Study 3, I experimentally manipulated the type of sexism displayed towards them in a hypothetical scenario, and asked female participants to rate their likelihood of protesting such an experience. Women perceived benevolently (vs. hostilely) sexist behaviour to be warmer, and subsequently indicated that they would be less inclined to protest it. Together the studies in Chapter 2 suggest women do not protest benevolent sexism, in part because they see men who endorse it as warm.

Chapter 3 examines the role of warmth in the so called "illusion of antagonism" (Rudman & Fetterolf, 2014) between BS and HS. Studies 4 and 5 manipulated protagonists' levels of BS behaviours or attitudes and measured their perceived levels of HS, support for equality and a whole host of outcomes related to BS. In both studies, male protagonists who expressed BS were seen as less likely to endorse HS or other outcomes considered antagonistic to women's interests (e.g. blaming of rape victims, justifying domestic violence). Benevolent sexist male protagonists were also seen as more likely to support gender equality and other outcomes in the interests of women (e.g. supporting a woman's right to choose a termination). In all cases, warmth mediated the relationship between BS and these outcomes. Also, in Study 5 these effects were tested with female protagonists, but the results were more mixed. People demonstrate some understanding of how BS relates to outcomes for women, such as engaging in self-objectification, but little evidence of the illusion of antagonism with HS. In Study 6 the causal role of warmth in the illusion of antagonism was tested. Describing

male protagonists as warm (vs cold) lead to increased perceptions of BS and reduced perceptions of HS. Further, the effect extends to many other outcomes associated with BS, including support for equality. In sum, studies in Chapter 3 suggest that people do not accurately understand the relationship between BS and HS, because of the greater warmth attributed to benevolent sexists. Likewise, the influence of warmth seems to extend to other related outcomes of BS.

Chapter 4 seeks to unpack the warmth Gestalt to better understand its influence in perceptions of benevolent sexism. Studies in Chapter 2 and 3 conceptualised warmth in global terms (as Gestalt), and operationalised it either as trait warmth or warm attitudes to women. Theoretically, warm attitudes toward women represents a more proximal predictor of benevolent sexism than trait warmth. Thus Study 7 tested whether trait warmth was sufficient to influence perceptions of BS, or whether it was only distally related via attitudinal warmth. Further, Study 8 orthogonalized trait and attitudinal warmth to disentangle their unique influence on perceptions of BS. Findings from Chapter 4 suggest that both trait and attitudinal warmth are important in perceptions of BS, but trait warmth is a more distal and warm attitudes toward women a more proximal predictor of BS.

Chapter 2:

Recognising and protesting benevolent sexism: the role of warmth

Despite concerted political and social efforts to reduce inequality following Second Wave Feminism of the 1960s, women and girls still experience significant discrimination across the life-span (The World Bank, 2012). Recently, we have seen a renewed interest in feminism and the pursuit of gender equality with the likes of #MeToo and TimesUp generating global awareness of the harassment and discrimination still experienced by women and girls (Almukhtar, Gold & Buchanan, 2018; Thorpe, 2017). These developments are tantamount to a collective rejection of overt hostility toward women.

It is less clear that women are resisting more subtle, benevolent forms of sexism. Group-based antipathy is easily identifiable to observers and targets as discrimination (for a review see Barreto, 2014; Barreto & Ellemers, 2015). These blatant forms of prejudice elicits sufficient anger responses to provoke actions to change inequality (Ellemers & Barreto, 2009; see also Van Zomeren, Spears, Fischer & Leach, 2004). On the other hand, more subtle forms of prejudice can be difficult to recognise (Dovidio & Gaertner, 1986; Ellemers & Barreto, 2009; Pettigrew & Meertens, 1995), which reduces individual efforts to challenge group-based stereotypes and discrimination (Barreto, Ellemers, Piebinga & Moya, 2010; Ellemers & Baretto, 2009). Likewise, subtle types of prejudice do not generate the necessary affective responses to promote change and therefore often go unchallenged (Barreto & Ellemers, 2005b; Swim et al., 2001). Benevolent sexism as a more subtle form of

discrimination proves exceptionally difficult to identify (Fischer, Becker, Kito & Nayir, 2017; Riemer, Chaudoir & Earnshaw, 2014; Swim et al., 2005). It is unlikely then, that the current cultural consciousness and rejection of hostility toward women will extend to benevolent sexism.

This presents a real barrier in the pursuit of gender equality, as reducing inequality is most successfully achieved through accurately recognising discrimination and engaging in collective actions (Becker, Zawadzki & Shields, 2014). It follows that if people, and in particular women cannot identify BS as sexism, then they will not challenge it. Previous theorising has suggested that the warm affective tone of BS might obscure its detrimental effects for women and influence their reactions to it (Glick & Fiske, 1996; 2001). Indeed, some indirect support for this hypothesis comes from research showing that compared to hostile sexists, women evaluate benevolent sexists more positively (i.e. kinder, compassionate, likable, protective and caring). Moreover, they are less likely to identify their attitudes as prejudice and this effect is mediated by benevolent sexists' greater likeability (Barreto & Ellemers, 2005a; Good & Rudman, 2010; Moya et al., 2007; Riemer et al., 2014).

In a more recent investigation of women's reactions to benevolent sexism, Fischer, Becker, Kito and Nayir (2017) asked women in Germany, Turkey and Japan to read about a BS and HS scenario. They then measured their positive and negative perceptions, protest intentions and support for the behaviours. Consistent with previous research, experiences of BS were perceived as more positive (and less sexist) than HS in Germany, Turkey and Japan. Likewise compared to HS, women were less likely to engage in collective action against BS in Germany and Turkey, but no differences were found in Japan. Albeit, collective action intentions were well below mid-point for both types of sexism in this sample. Fischer et al. also reported an unexpected finding for BS: women in Turkey responded to BS with greater intentions to protest than support (i.e. accepting and expressing gratitude for BS help) such

treatment. Conversely, in the Japanese and German samples greater support for rather than protesting BS was observed (although this difference was marginal in the German context). The authors attribute this unexpected finding to two possibilities. The first is that women may be more likely to protest benevolent sexism when it comes from a subordinate (as was the case in their scenario) in order maintain their position in the social hierarchy. Second, they cite cultural shifts and political policies in Turkey over the last two decades which explicitly punish non-traditional women (Kandiyoti, 2015). As such, forcing women to engage in traditional roles, rather than encouraging them to do so through benevolent praise may elicit resistance. Taken together, current research findings indicate that women largely fail to understand BS as prejudice, and this can be explained (in some case) by the greater likability of benevolent sexist men and the perceived positivity of their intentions. Further, cross cultural evidence suggests that benevolent sexism may be beginning to be rejected by women in certain contexts, however the extent of this rejection remains unclear.

The Present Research

Recent global cultural shifts in public opinion and collective actions have led to increases in identification and rejection of hostility toward women. However, research evidence suggests that these reactions do not extend to benevolent sexism, which still goes largely unnoticed and unchallenged as sexism. According to AST, the warm affective tone of BS may be responsible for such reactions to it (Glick & Fiske, 1996; 2001). As of yet though no direct test of warmth's effect on reactions to BS has been conducted. Therefore, the present chapter examines women's reactions to benevolent sexism and for the first time tests the role of warmth in in explaining women's misperceptions of and (under)reactions to BS. In Study 1, I conducted a qualitative content analysis of the frequency of women's experiences of benevolent sexism compared to other types of sexist treatment, from a popular internet sharing platform "The Everyday Sexism" blog. In Study 2, I asked women to recall the

frequency of their sexist (HS or BS) experiences, and how often they protested these experiences. Finally, in Study 3 I manipulated the type of sexism experienced (HS or BS) and measured the perceived sexism, warmth and intentions to protest such treatment.

Study 1: "Everyday Sexism" is Seldom Benevolent Sexism

The Everyday Sexism Project is an online crowd-sharing platform set up by British journalist Laura Bates (2012), and operates across 24 countries with 50,000 users. Women are invited to post their experiences of sexism on the platform, which is open to the public. For various reasons, this website may be regarded as an ideal opportunity to overcome the obstacles that confront women and girls in challenging sexism, by providing a space for recognizing sexism when it occurs, confronting sexism safely, and generating sufficient collective energy and action around the issue.

One primary obstacle to challenging sexism is failing to recognise sexism when it occurs, and as we have seen, BS is particularly difficult to recognise (Becker et al., 2014). Becker and Swim (2012) found that women's ability to recognise BS as sexism was improved by informing them about its prevalence and effects – information that may be gleaned from this platform through exposure to other women's experiences of sexism. Moreover, Becker and Swim (2011) found that women were better able to recognise BS after keeping a diary whereby they logged instances of sexist behaviour in their own lives. Since the Everyday Sexism Project effectively crowdsources the diarizing of experiences of sexist treatment, and offers an outlet for the public to learn about the prevalence, various forms, and consequences of sexism, this platform ought to help people recognise BS for what it is.

Another obstacle to challenging sexism is the social costs to people who do so, perhaps paying an even higher price than those who confront racism (Czopp & Monteith, 2003). Some research indicates that women who challenge benevolent sexism may elicit particularly adverse reactions (Becker, Glick, Ilic & Bohner, 2011). Since the Everyday

Sexism Project anonymizes posts, normalizes opposition to sexism, does not allow trolling, and does not require women to confront perpetrators of sexism directly, it protects women from some of the social costs that might otherwise be incurred by confronting sexism.

A third obstacle to challenging BS in particular is that it does not necessarily produce sufficiently immediate or intense experiences of anger to motivate them to action (Salomon, Burgess, & Bosson, 2015). However, the sheer volume of posts on the Everyday Sexism Project, and the apparent ubiquity of sexism it uncovers, has the potential to generate the collective anger required for collective action – and potentially also the collective identity and efficacy to go along with it (Pruchniewska, 2016). While there has been some scholarly analysis of the platform in gender, media, and social studies (Drüeke & Zobl, 2016; Whitley & Page, 2015), the contents of the website have not been systematically examined with a social psychological lens.

In the present study, I report a content analysis of posts to the Everyday Sexism Project. To my knowledge, the present study is the first observational examination of women's (and girls') responses to sexist treatment. Also to my knowledge, it is the first empirical study of the social sharing of experiences of sexism more generally – and in particular, an analysis of experiences of benevolent sexist treatment versus other forms of sexism. If women do not recognise or object to benevolent sexism because of its warmth, it follows that women will be less likely to report it, compared to other forms of sexism. Accordingly, I analysed posts based on whether they reported instances of treatment consistent with BS, HS, or generic gender discrimination and stereotyping. I predicted that fewer posts would record instances of benevolent treatment, compared to hostile or other types of sexist treatment.

Method

A quantitative content analysis was conducted for this study. The sample was composed of randomly selected text entries (N = 297) from the Everyday Sexism website, including tweets originally posted on Twitter, but which appeared on the Everyday Sexism website. Sampling was restricted to entries posted on the English language versions of the website from January 2013 – December 2014.

Materials and Procedure

The present sample of extracts was downloaded from the Everyday Sexism website by the author. The Everyday Sexism website contains hundreds of text entries organised in blocks of 10 per internet browser page. Given the large number of text entries on the Everyday Sexism website and the functionally basic user interface of the website it was unfeasible to download all text entries on the website and then randomly sample from these as is common practice in qualitative content analysis (Krippendorf, 2004; White & Marsh, 2005). Instead, two-three extracts per browser page were randomly selected and copied into a Microsoft Excel file. An initial sample of 300 (150 each from the years 2013 and 2014) extracts was collected, with six cases later merged with other cases as the same author was identified. There is little consensus on adequate sample size for content analysis in the literature (Kolbe & Burnett, 1991; Neuendorf, 2017). With that in mind, while the present sample was restricted by resource availability, I did include entries from all majority English speaking countries (e.g., UK, US, Canada, South Africa, Australia, and New Zealand) featured on the website in an attempt to make the sample representative.

The author and a research assistant coded the sample of extracts. The research assistant was provided with a coding scheme and trained to use the system prior to data coding. The coding scheme provided definitions of hostile and benevolent sexism from Glick and Fiske (1996), and examples of hostile and benevolent sexist treatment of women adapted from Becker and Swim (2011).

The behaviours described on Everyday Sexism Project posts were coded as reflective of *BS* if they referred to unsolicited and/or patronising help, offers of protection, paternalistically justified restrictions on choice, and verbalizations of stereotypes explicitly embraced by BS including the view that women are especially moral, refined, and worthy of reverence and protection. Examples of behaviours coded as BS were "Guys that come in to pick up their items from my oilfield warehouse say that they can get the stuff and I shouldn't help so I don't hurt myself" and "My pathway in my High School is Computer Engineering […] in my grade there are four girls total, against about 15 or so boys. Often times we will be taking apart computers […] I will get the odd comment about 'don't strain yourself' or 'want me to help you get that out? I'm sure it's hard for you'".

Behaviours were coded as reflective of *HS* if they referred to explicitly gendered violence, harassment, insults, slurs, and negative comments about women consistent with stereotypes explicitly embraced by HS, including the view that women are manipulative, out to trap men in heterosexual relationships, or that they use feminism to usurp men. Instances of sexism coded as HS included "Wolf whistled and told I was a nice piece of meat..."and "momentarily separated from my friends, I unfortunately fell in a puddle […] a man helped me up and offered to walk with me to the next pub […] we had a nice chat and I gave him my number. When he text me the next day […] he'd said that he 'deserves' to take me for a drink, after 'all that help.' When I pointed out that I didn't actually OWE him anything […] he told me to forget it because 'you clearly just wanna sleep around, I don't want that kind of girl anyway.'".

Instances of gender discrimination (e.g. being ignored, patronised or excluded) and stereotyping that could not be clearly identified as motivated by hostile or benevolent ideologies were coded as *general sexism* (GS). Extracts coded as *general sexism* (GS) included "I went to [a car dealership] to ask about a car I was interested in. I had picked my

father up on the way, as we were going to lunch afterwards. Although I asked all the questions, and it was clear I was the one buying the car, the salesman answered every single question not to me, but across the table to my father (note: I am in my 30s!)*"* and, "When talking to some 5 year olds - I told them that I was going to be a doctor. They danced around saying "Girls can't be doctors" laughing their heads off. It was pretty cute, and pretty depressing".

If a coder felt that an entry contained more than one type of sexism (e.g. HS and BS, or HS and GS) they could select both categories. Further, if the coder felt an entry could not be coded, it was marked as *unable to code*, which occurred in instances where the presence of a male voice was clear in the entry or the extract did not describe sexism. Inter-rater reliability was adequate (kappa > .65; Krippendorf, 2004). For HS, $\kappa = .75$, 95% CI [0.65, 0.85], $p < .001$, BS, $\kappa = .68$, 95% CI [0.46, 0.89], $p < .001$, and general sexism, $\kappa = .72$, 95% CI [0.62, 0.84], $p < .001$. Extracts that were rated as unable to code by either rater ($n = 49$) were removed from the sample, leaving a final sample of 248 extracts for analysis. For further details of the coding scheme and its development see Appendix A.

Results

Descriptive analysis of the extracts revealed varying categories of sexist treatment: Most of the extracts described hostile sexism ($n = 176$, 71%), with fewer describing instances of general sexism ($n = 55$, 22.2%), benevolent sexism ($n = 8$, 3.2%), ambivalent sexism (presence of HS and BS; $n = 5$, 2%), and general hostility (presence of HS and GS*;* $n = 4$, 1.6%). In addition, men were identified as the perpetrators most frequently ($n = 206$, 83%), compared to women ($n = 16$, 6.5%), or gender-unspecified perpetrators ($n = 26$, 10.5%).

To make direct comparisons between categories, a series of one-sample Chi-square tests were conducted. Note, some cases were excluded from analysis because they mentioned more than one kind of sexist treatment. This included 5 cases (2%) that indicated both HS

and BS, and 4 cases (1.6%) that mentioned both HS and GS. The first Chi-square test compared BS and HS, then BS and GS, and finally HS and GS (all comparisons where conducted using the *select cases* command in SPSS). As expected, (see Figure 1), BS was described significantly less often than HS, $\chi^2(1) = 153.39$, $p < .001$, and GS, $\chi^2(1) = 35.06$, $p < .001$. Similarly, GS was described significantly less often than HS, $\chi^2(1) = 63.38$, $p < .001$. As expected, these findings suggest that women report benevolent forms of sexist treatment less often than hostile forms of sexist treatment or more general sexism.

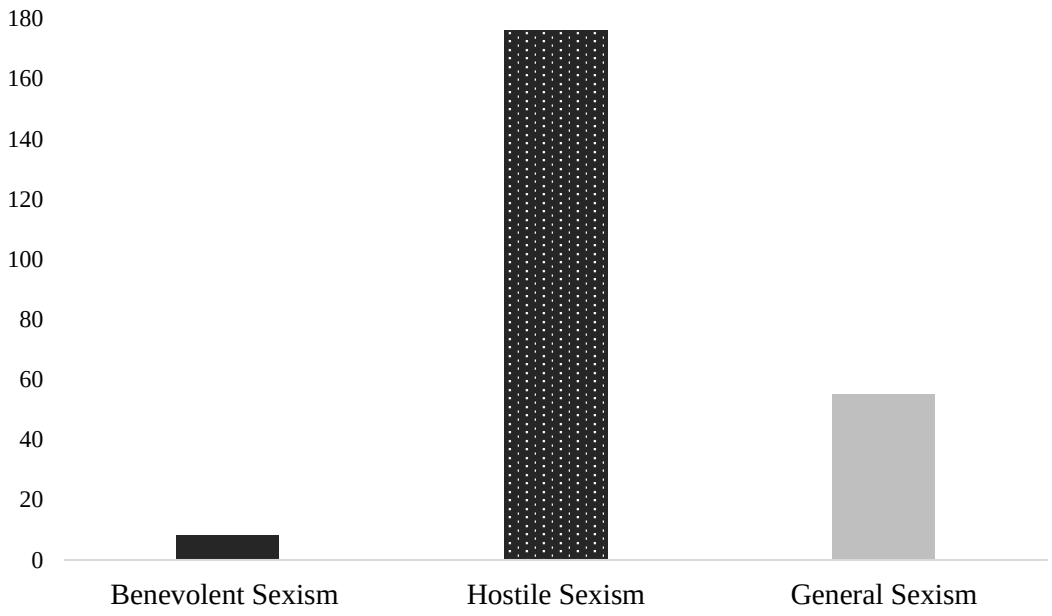

Figure 1. $N = 239$. Observed frequencies of benevolent sexism, hostile sexism and general sexism in posts to the Everyday Sexism Project. All frequencies were significantly different at $p < .001$. Extracts coded as two categories simultaneously ($N = 9$) were not included in these analyses (Study 1).

Discussion

Study 1 indicated that women are less likely to go online to report their experiences of benevolent sexism compared to hostile sexism or general sexism (e.g., gender discrimination and stereotyping). These findings are consistent with the overarching thesis that BS presents traditional gender roles and their associated inequalities less harshly, which may obscure the

sexist nature of the treatment, and make it seem less offensive (Jackman, 1994). The results also suggest the utility of initiatives such as Everyday Sexism Project might be constrained by the relative rarity with which women recognise and confront BS.

Although the present study provides unique observational insight into the frequency with which women describe different kinds of sexism, it has two key limitations. Critically for this thesis, the extracts did not allow for the possibility to code for perceived warmth (trait or attitudinal), and therefore the role of warmth can only be inferred, rather than observed. Also, the data cannot exclude the possibility that women describe benevolent treatment less often because they experience it less often. I address these limitations in Study 2 by asking women how often they have experienced either BS or HS interactions with men, and directly measuring the perceived warmth toward women of these men. I also asked women how often they protested such experiences.

Study 2: Experiences of Sexism are Experiences of Benevolent Sexism.

Study 1 demonstrated that women go online to report fewer experiences of benevolent than hostile sexism. Yet, it is unclear whether this effect is explained by differences in the frequency of BS and HS, or differences in the desire to protest them. In this second study, I asked women to recall how often they had experienced various hostile or benevolent behaviours from men, and the perceived warmth of those men and their attitudes toward women. I also asked women how often they had responded to these behaviours by complaining about them to family and friends, sharing them online (e.g. social media/blogs) or confronting the perpetrators. Note that as outlined by Becker, Barreto, Kahn and de Oliveria Laux (2015) individual reactions to sexism can be considered as collective protest actions once the purpose is to reduce sexism for women as a group. As such I conceptualise these three responses to sexist experiences as protest actions. I expected that women would report experiencing BS more than HS, since it is endorsed more than HS (Glick et al., 2000),

is more normatively acceptable (Barreto & Ellemers, 2005a), and plays an important role in the day-to-day texture and long-term course of heterosexual relationships (Hammond & Overall, 2017; 2015). In contrast and in keeping with my thesis, I predicted that women would report protesting HS more often than BS. Further, I predicted an indirect effect by which reporting instances of BS (compared to HS) could be statistically accounted for by the greater warmth of its perpetrators.

Method

Participants

Participants were 252 British Women (M_{age} = 38.73, *SD* = 11.79), recruited via online crowdsourcing platform Prolific Academic. Sensitivity analyses indicated that this sample could detect an effect size of $\eta^2_p = 0.03$ with 80% power and alpha of .05. Participants were predominantly White British (94.4%), Black British (2.4%), Asian British (1.2%), and other ethnicities (2.0%). Participants were compensated for their time based on Prolific Academic pay standards (min. £6 per hour).

Materials and Procedure

Participants were randomly assigned to one of two groups, in which they were asked to recall the frequency of experiencing three sexist interactions with men which were either benevolent sexist (e.g. "Had men try to help you because of your gender (e.g. by offering to carry bags)", or hostile sexist (e.g. "Been the target of offensive behaviour from men because of your gender (e.g. name calling or jokes)". See Appendix B for all example interactions. The Frequency of Sexism responses were the dependent variable and were recorded for three different time frames (e.g. in the "last week", "last month" and "last twelve months"), on scale from *never* (scored as 1), *1-2 times* (scored as 2), *3-4 times* (scored as 3), *5-10 times* (scored as 4) and *more than 10 times* (scored as 5). Example interactions were adapted from the Study 1 coding scheme and Becker and Swim (2011). Participants were then asked to

rate the interactions on the two additional dependent measures in a random order. All items across the three time frames were averaged to create a composite score, with higher scores indicating a greater mean frequency of sexist experiences.

Warmth. Participants were asked to rate the trait warmth e.g. "In your experience, how much do you like men who behave in the following ways:" (1 = *Dislike*, 7 = *Like*), and the attitudinal warmth e.g. "In your experience, how much do men who behave in the following ways like women:" (1 = *Dislike women*, 7 = *Like women*), for each of three example behaviours. These items were averaged to create a mean perceived warmth score, with higher scores indicating greater perceived trait and attitudinal warmth (to women) of men who enact these behaviours[2] (α = .92; see Appendix C for exploratory factor analyses).

Protest Sexism. Participants were asked how often have you "complained to people you know (e.g., friends, family)", "complained online (e.g., on social media, blogs)" and "confronted men who" followed by the same three example behaviours. Responses were recorded for the same three time frames (in the last week, month, twelve months) from *never* (scored as 1) to *more than 10 times* (scored as 5).

Data Preparation. The individual Frequency of Sexism and Protesting Sexism scores were recoded to more accurately reflect the data labels from a 1-5 scale to a zero to 11 scale (i.e. *Never* = 0, *1-2 times* = 1.5, *3-4 times* = 3.5, *7-10 times* = 7.5, *10 or more times* = 11). In addition, prior to analysis the distribution of the data was investigated, and a strong positive skew was observed for the frequency of sexism, warmth and protesting sexism dependent variables. To reduce the positive skew in the dependent variables a log

[2] Although a person's overall (trait) warmth and their warmth towards women (attitudinal) can be separated conceptually, these items were positively correlated (*r* from .46 to .93) and comprised a reliable scale (α = .92). When the composite score is substituted for either the trait warmth or attitudinal warmth (to women) scores all analyses hold, except the indirect effect of Sexism Type on protesting sexism by Confronting the Perpetrator via Attitudinal Warmth, *indirect b* = -0.15[-0.33, 0.01].

transformation was used (i.e. Log10(?) + 1; Howitt & Kramer, 2007). These log transformed variables were then used in data analysis.

Results

Frequency of Sexist Interactions

Means and standard deviations are presented in Table 1. First, I conducted a one-way ANOVA to investigate differences in Frequency of Sexism experienced by women, as a function of the Type of Sexism (BS or HS). To investigate the influence of Type of Sexism on frequency of experiencing sexist interactions a mixed 2 (Type of Sexism: HS, BS) x 3 (Frequency of Sexism: Week, Month, Year) ANOVA was conducted with repeated measures on the last factor. There was no main effect of Type of sexism, $F(1, 250) = 2.69$, $p = .102$, $\eta^2_p = .01$. However, there was a significant main effect of Frequency of Sexism, $F(1.52, 380.55)$[3] $= 410.19$, $p < .001$, $\eta^2_p = .62$, with participants experiencing more sexism over the last year, relative to week or month. Further, this effect was qualified by a significant Type of Sexism x Frequency of Sexism interaction, $F(1.52, 380.55) = 15.39$, $p < .001$, $\eta^2_p = .06$. Simple effects showed BS ($M = 0.59$, $SD = 0.33$) was experienced more than HS ($M = 0.46$, $SD = 0.31$) over the last year $F(1, 250) = 8.90$, $p = .003$, $\eta^2_p = .03$, but not over the week or month time frames. Respectively: $F(1, 250) = 0.28$, $p = .598$, $\eta^2_p = .00$ and $F(1, 250) = 1.41$, $p = .236$, $\eta^2_p = .01$. Given the presence of this unexpected interaction effect, I recalculated the Frequency of Sexism dependent variable to reflect a mean score for only the Year time frame (i.e. "in the last twelve months"). Further for parsimony between dependent variables and further significant effects of time[4], I recalculated all protest items to reflect a mean score for the Year time frame only. All further analyses used these new dependent variables.

[3] Greenhouse-Geisser correction was used in response to a significant Mauchly's test of Sphericity.

[4] Other significant effects of Time frame were found for protesting sexism by complaining to family/friends. A mixed 2 (Sexism: HS, BS) x 3 (Time: Week, Month, Year) ANOVA was conducted with repeated measures on the last factor. There was a main effect of Type of sexism, $F(1.40, 349.80) = 100.02$, $p < .001$, $\eta 2p = .29$, which was qualified by an interaction with Time, $F(1.40, 349.80) = 5.07$, $p = .015$, $\eta 2p = .02$. Participants were more likely to complain to family/friends about HS experiences, relative to BS at the year time frame (HS: $M = 0.26$, $SD = 0.30$ vs. BS: HS: $M = 0.16$,

Protesting Experiences of Sexism

To investigate the influence of Type of Sexism on frequency of protesting such experiences a mixed 2 (Type of Sexism: HS, BS) x 3 (Protesting Sexism: Family, Online, Confront) ANOVA was conducted with repeated measures on the last factor. As expected, participants were more likely to protest experiences of HS sexism than BS, $F(1, 250) = 6.07$, $p = .014$, $\eta^2_p = .02$. Participants also reported a greater frequency of protesting sexism by complaining to family and friends, than complaining online or by confronting the perpetrator, $F(1.94, 485.85) = 40.74$, $p < .001$, $\eta^2_p = .14$. Further, the Sexism Type x Protesting Sexism interaction was non-significant ($F = 2.51$, $p = .084$), however upon investigation of the simple effects participants reported a greater frequency of complaining to family/friends about HS, compared to BS ($p = .004$). Additional analyses adjusting for the Frequency of Sexism observed a significant main effect of Sexism Type, $F(1, 249) = 22.87$, $p < .001$, $\eta^2_p = .08$, women protested experiences of HS more, relative to BS. Further, this was qualified by a significant Sexism Type x Protesting Sexism interaction, $F(2, 498) = 5.68$, $p = .004$, $\eta^2_p = .02$. Participants were more likely to protest about HS relative to BS by complaining to family and friends ($p < .001$), sharing experiences online ($p = .025$), and by confronting the perpetrator, ($p = .006$). Note these effects were replicated when I used non-log transformed variables[5].

SD = 0.24) but not at week and month, respectively: $F(1, 250) = 8.39$, $p = .004$, $\eta^2_p = .03$, $F(1, 250) = 3.56$, $p = .061$, $\eta^2_p = .01$ and $F(1, 250) = 4.07$, $p = .045$, $\eta^2_p = .02$.

[5] All variables were entered as before. A main effect of Type of Sexism was observed, women were more likely to protest HS, compared to BS interactions, $F(1, 249) = 15.19$, $p < .001$, $\eta^2_p = .06$. This was qualified by a significant Sexism Type x Protest interaction, $F(1.84, 457.44) = 8.29$, $p < .001$, $\eta^2_p = .03$. Investigation of simple main effects revealed that compared to BS, women were more likely to protest HS by complaining to family/friends ($p < .001$), but differences were only marginal for complaining online ($p = .09$), and confronting the perpetrator ($p = .05$).

Table 1

Study 2 Means and Standard Deviations for each of the Dependent Variables by Type of Sexism.

	Hostile sexism *M*(*SD*)	Benevolent sexism *M*(*SD*)
Frequency of Sexism: Week	0.18_a(0.21)	0.17_a(0.16)
Frequency of Sexism: Month	0.30_a(0.27)	0.34_a(0.25)
Frequency of Sexism: Year	0.46_a(0.31)	0.59_b(0.33)
Warmth	0.49_a(0.12)	0.76_b(0.09)
Protest:		
Complain family/friends	0.29_a(0.30)	0.14_b(0.24)
Complain online	0.10_a(0.22)	0.04_b(0.18)
Confront perpetrator	0.19_a(0.24)	0.12_b(0.24)

Note. $N = 252$. All scores are log transformed. Protest variables are mean score for the Year only, and means are adjusted for frequency of sexist experience. Perceived warmth of attitudes is a composite score of the likes women and likeability. Standard deviations are in parentheses. Different subscripts indicate means are significantly different at $p < .05$.

Mediation analyses.

To further investigate the relation among Type of Sexism, Warmth and Protesting Sexist Experiences, I tested a mediation model using the Process macro (Model 4; Hayes, 2017) with 95% bias-corrected and accelerated confidence intervals and 10,000 bootstrap resamples. Type of sexism (HS = -1; BS = 1) was entered as the independent variable (X), warmth as the mediator (M), and each of the protesting variables were entered as the dependent variable (Y). A significant indirect effect from Type of Sexism to complaining to family/friends, *indirect b* = -0.07 [-0.12, -0.02]; sharing online, *indirect b* = -0.07 [-0.10, -0.03], and confronting the perpetrator, *indirect b* = -0.04 [-0.08, -0.01] was observed via Warmth. In addition, a direct effect was only observed from Type of Sexism to sharing

online, b = .05, SE = .02, t = 2.50, p = .013 (all others bs < .02, ps > .328). Taken together these findings suggest that women are less likely to protest experiences of BS because of its greater perceived warmth relative to HS. Additional models showed that most of these effects were also observed when adjusting for the frequency of sexist experiences[6]. See Figure 2 for individual (a and b) paths.

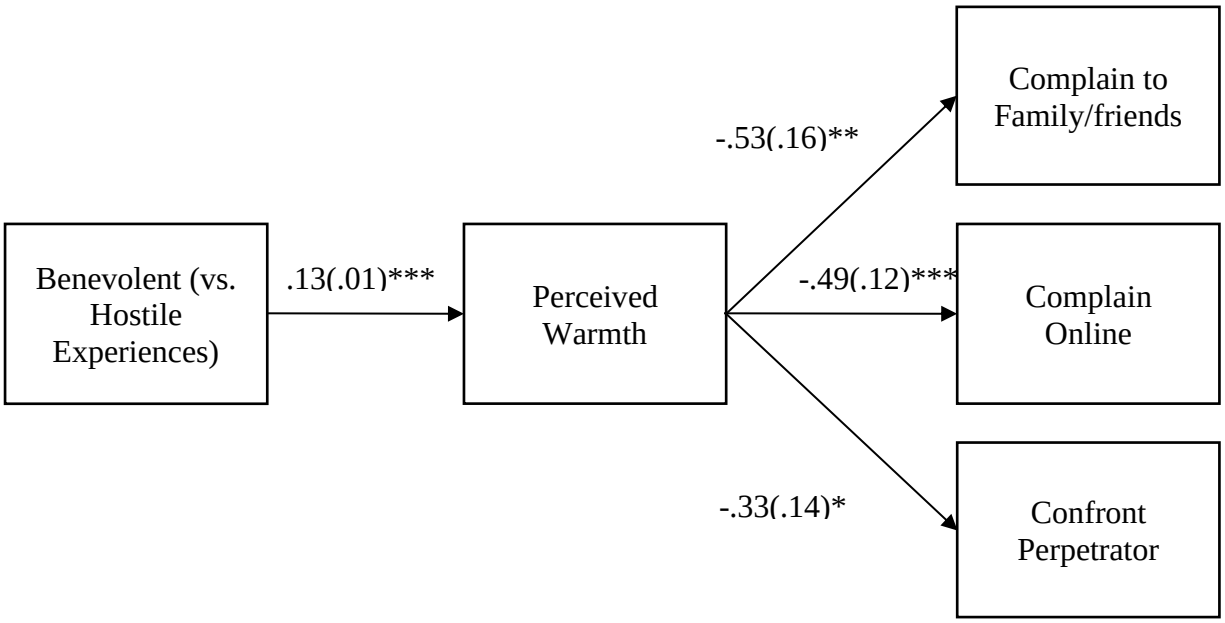

Figure 2. Mediation of the relation between Type of Sexism (Hostile = -1, Benevolent = 1), Warmth as proposed mediator, and Protesting Sexist Experiences (frequency scores) in three ways: by Complaining to Family/friends, Complaining Online and Confronting the Perpetrator. Statistics for each path are unstandardized estimates with standard error in parentheses. ***p < .001. ** p < .01. * p < .05. (Study 2).

[6]All variables were entered as before. In addition, the Frequency of Sexism was entered as a covariate. While this covariate did affect some individual paths within the models, I report their influence on the indirect (a*b) and direct pathways only. When controlling for the Frequency of Sexism, Type of Sexism predicted complaining to family/friends through Warmth, *indirect b* = -0.05 [-0.10, -0.01] and the direct effect of Type of Sexism on complaining to family/friends was non-significant, b = -.02, SE = .02, t = -1.05, p = .293. In addition, when controlling for Frequency of Sexism, Type of Sexism predicted Sharing online via Warmth, *indirect b* = -0.06 [-0.09, -0.03], and the direct effect was non-significant, b = .03, SE = .02, t = 1.67, p = .098. Finally, Type of Sexism did not predict Confronting the perpetrator when the Frequency of Sexism was controlled for, *indirect b* = -0.03 [-0.07, 0.00], and there was no direct effect of Type of Sexism on Confronting the Perpetrator, b = -.01, SE = .02, t = -0.22, p = .822. These results are indicative of mediation through Warmth for Complaining to Family/friends and Sharing Online, but not for Confronting the Perpetrator.

Discussion

Study 1 examined posts on the Everyday Sexism Project and found that few of them protested experiences of BS while many protested experiences of HS and other instances of gender prejudice. However, this archival investigation could not exclude the possibility that this pattern arises because women perceive BS as relatively rare. Study 2 resolved this interpretive difficulty. I asked women to recall their experiences of sexism, and found they recalled BS more often than HS. Despite experiencing BS more often than HS, women reported protesting it less, consistent with Study 1. Whereas the archival methodology of Study 1 provided no measure of warmth, Study 2 also produced evidence that the tendency to protest BS less often was mediated by its perceived warmth. This pattern of findings suggest that the greater frequency and warmth of BS experiences lead women to see it as unworthy of reporting to others, and challenging both indirectly, via online sharing platforms or directly, by confronting the perpetrator.

Although Study 2 provides the first direct evidence that the inclination to challenge BS is lowered by its warmth, it has an important limitation: women's recall of their experiences may be biased. For example, protesting experiences involves cognitive rehearsal and social sharing of those experiences, and can therefore be expected to increase and distort recall (Hirst & Echterhoff, 2012; Reis & Wheeler, 1991). In Study 3, I address these limitations by employing an experimental methodology that is not reliant on recall.

Study 3: The Role of Warmth in Suppressing Protest about Benevolent Treatment

Studies 1 and 2 demonstrated that women share experiences of benevolent sexism online less often than experiences of hostile sexism, but that they experience benevolent sexism in greater frequency over a one year period. Further, the greater perceived warmth of

BS influences women's willingness to protest BS. In the Study 3, I presented female participants with behaviours that exemplified either benevolent or hostile sexism by a male protagonist, and asked them to rate the perceived warmth of the male protagonist, and then to indicate whether the behaviours were sexist. I also asked women whether they would protest these sexist behaviours if they were ever to personally experience them. I predicted that women would be less likely to perceive benevolent (vs. hostile) behaviours as sexist, and that this finding would be mediated by the perceived warmth of the benevolent behaviours. Further, I predicted that women would be less likely to protest experiences of benevolent versus hostile sexism, and that this effect would be mediated sequentially by perceived warmth and perceived sexism.

Method

Participants

Participants were 219 British Women (M_{age} = 40.74, *SD* = 11.97) recruited via the crowd-sourcing platform Prolific Academic. Based on an effect size of $\eta^2_p = .04$, a power analysis using GPower recommended a sample size of 198 to detect an effect at 80% power. This was increased to 220 to allow for incomplete responses and exclusions based on failed attention checks, and one case was removed due to a failed attention check. Further, sensitivity analyses using GPower indicated that at this sample size there was sensitivity to detect an effect size of $\eta^2_p = .03$ with 80% power and alpha equal to .05. Participants were predominantly White British (90.9%), Black British (3.7%), Asian British (3.2%), and other ethnicities (2.3%). Only participants who had greater than 90% of their submissions approved on Prolific Academic were eligible to take part. All participants were compensated for their time based on Prolific Academic pay standards (minimum £6 per hour).

Materials and Procedure

Participants were randomly assigned to one of two conditions, in which they were presented either with three instances of benevolent or hostile sexist treatment of women, adapted from Becker and Swim (2011). For benevolent sexism, the behaviours included: "A man goes out of his way to carry heavy shopping bags for women", "A man complements women, e.g., "You're so kind and generous – and you're a great mother", and "A man insisting on paying for his girlfriend's meals." For hostile sexism, the behaviours included: "A man sexually harassing women by ogling at them and catcalling", "A man using "bitches" and "chicks" to refer to women", and "A man expressing the belief that female managers are not as effective as their male counterparts". Participants were asked to rate the three example behaviours on the four dependent measures described below. All dependent measures were randomly presented. Finally, participants provided demographic information, and were then debriefed, thanked, and paid.

Warmth. Participants responded to two questions about how much they would like someone who behaved in these ways (e.g. "Please indicate how much you would like someone who acted in these ways?"; *Trait warmth*) and how that person feels toward women (e.g. "Please indicate how much you would think someone who acted in these ways likes women?"; *Attitudinal warmth*). These items were rated on a seven-point scale ranging from *not at all* (1) to *very much* (7) and averaged to create a mean perceived Warmth score (α = .90), with higher scores indicating greater perceived warmth[7].

Perceived sexism. Participants responded to two questions about whether they perceived the behaviour as sexist (e.g., "Please indicate how much you think the following behaviours are sexist.") and prejudiced ("Please indicate how much you think the following

[7] Although a person's overall (trait) warmth and their warmth towards women (attitudinal) can be separated conceptually, these two items were positively correlated (r = .67) and comprised a reliable scale (α = .90). The reported results hold when the composite scale is substituted by either the single item measuring overall warmth, or the item measuring warmth toward women.

behaviours are prejudiced against women."). These items were rated on a seven-point scale ranging from *not at all* (1) to *very much* (7). All items were averaged to create a mean perceived sexism score ($\alpha = .97$), with higher scores indicating greater perceived sexism.

Protesting Sexism. Participants also responded to a question about whether they would protest these experiences if they were the target of such behaviour: "How likely would you be to complain about such treatment (e.g. by going on a website in which women share their experiences of sexism)?" These items were rated on a seven-point scale ranging from *not at all* (1) to *very much* (7).

Results

Effect of Sexism Type on Dependent Measures

A series of one-way ANOVAs were conducted to investigate differences in the perception of hostile and benevolent behaviours on the dependent measures. Means and standard deviations are presented in Table 2. In each ANOVA, Sexism Type was entered as the independent variable and Warmth, Perceived Sexism, or Protesting Sexism as the dependent variable. As expected, BS was perceived as significantly greater in warmth compared to HS, $F(1, 217) = 346.18$, $p < .001$, $\eta^2_p = .62$. In addition, participants were significantly more likely to perceive HS as sexist relative to BS, $F(1, 217) = 696.24$, $p < .001$, $\eta^2_p = .76$. Finally, participants were significantly more likely to protest sexist experiences about HS than BS, $F(1, 217) = 242.02$, $p < .001$, $\eta^2_p = .53$.

Table 2.

Study 3 Means and Standard Deviations for each of the Dependent Variables by Type of Sexism.

	Hostile sexism *M*(*SD*)	Benevolent sexism *M*(*SD*)
Perceived Sexism	6.00_a(1.14)	1.91_b(1.43)
Warmth	2.17_a(0.86)	4.52_b(1.00)
Protesting Sexism	4.30_a(1.54)	1.83_b(0.64)

Note. $N = 219$. Perceived Sexism is a composite score of the sexism and prejudice items, and Warmth is a composite score of likes women and likability. Standard deviations are in parentheses. Different subscripts indicate means are significantly different at $p < .001$.

Mediation analyses

To further test the relation among Type of Sexism, Warmth, Perceived Sexism and Protesting Sexism, I tested a sequential mediation model using Model 6 of the Process macro (Hayes, 2018) with 95% bias-corrected and accelerated confidence intervals and 10,000 bootstrap resamples. Type of sexism (HS = -1; BS = 1) was entered as the independent variable (X), and warmth and perceived sexism were entered as the mediators, in that order (M_1 & M_2), and protesting was entered as the dependent variable (Y). A significant indirect effect was observed from Type of Sexism to Protesting Sexism via, in turn, Warmth and Perceived Sexism, *indirect b* = -0.19 [-0.34, -0.09]. See Figure 3 for individual (*a* and *b*), direct and total paths. This finding suggests that women who experience BS are less likely to protest about such experiences owing to BS's greater perceptions of warmth, and lower perceptions of sexism.

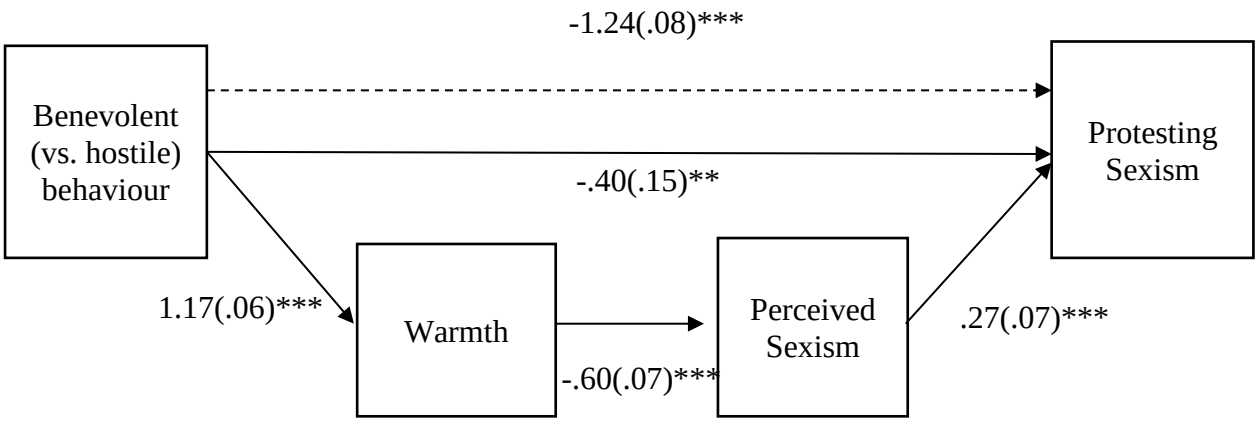

Figure 3. Mediation model showing the effect of Sexism Type (benevolent vs. hostile behaviour) on intention to protest experiences of sexism (in an online forum), as mediated by perceived warmth of the protagonist, and perceptions of the behaviour as sexist (or not). Statistics for each path are unstandardized estimates with standard error in parentheses. Dashed line indicates the total effect of type of sexist behaviour on complaining. $^{**}p < .01$, $^{***}p < .001$. (Study 3)

Discussion

Study 3 showed that women perceived benevolent behaviours as less sexist and perceived benevolent sexist men as warmer toward women, compared to hostile behaviours and the men who enact them. This finding replicated and extended Barreto and Ellemers' (2005) findings by showing that BS attitudes are viewed as more likeable and subsequently less sexist compared to HS. Further, it indicated that in turn, women were less likely to protest BS publicly. One limitation of the present investigation is the use of likelihood measures of protesting sexism, which have been shown to be susceptible to overestimation in previous studies (Swim & Hyers, 1999; Woodzicka & LaFrance, 2001). However, given the reduced costs of protesting sexism through online sharing platforms as outlined in Study 1, it is possible the effects of overestimation may be minimal. Of course, future research might wish to include a behavioural measure of protesting sexism in this way.

General Discussion

Taken together, Studies 1-3 suggest that women are less likely to perceive experiences of benevolent sexism as reflecting instances of sexism, and this pattern is attributable to the warmth attached to benevolent sexist treatment. Study 1 demonstrated that women react to experiences of BS, by sharing it online, significantly less often compared to other types of sexism. Of course, these findings were constrained by the absence of frequency information, determining how often women experience BS treatment, relative to HS. Study 2 addressed this gap by asking women to recall how often they had experienced examples of BS or HS. Consistent with hypotheses and the normative acceptability of BS, women recalled experiencing BS more often than HS. Importantly though they reacted to it less often. That is, when women recalled experiencing BS, rather than HS, they reported protesting it less often by complaining to family and friends, and sharing the experience online. Finally, Study 3 tested the possible underlying mechanism for this effect by asking women to imagine experiencing BS or HS, and to rate their perceptions of and reactions to such an experience. Women who imagined experiencing BS, relative to HS, perceived these interactions as less sexist and greater in warmth. Both of which indirectly predicted lower intentions to protest such treatment by sharing it online.

These findings add to our understanding of how women interpret and react to benevolent sexism when they experience it. Indeed, women's failure to identify BS as prejudice and their lower recall and self-rated likelihood of protesting BS do not support the knowing-bargain hypothesis, but rather indicate a failure to appreciate BS's true nature. This is consistent with the false-consciousness perspective. Further, the present findings are consistent with previous investigations of perceptions of benevolent sexism showing that, compared to HS, BS behaviours and the men who enact them are perceived as less sexist and more likable (Barreto & Ellemers, 2005a; Fischer et al., 2017; Swim et al., 2001). Likewise,

the findings are consonant with research on reactions to BS which demonstrates that exposure to BS beliefs or treatment reduces intentions to protest and actual collective actions against such treatment (Becker & Wright, 2011; Fischer et al., 2017).

In addition, the present findings are consistent with research on the perceptions of warmth more generally. For example, previous research on person perception has found that describing a target as communal increases the perceived benevolence of a protagonist's actions (e.g. the belief that their actions are good for others) and their likability (Wojciske, Abele & Baryla, 2009). Similarly, manipulating the benevolence of a target's actions increases the perceived communality (i.e. warmth) and likeability of the target (Cislak & Wojciske, 2008; Russel & Fiske, 2008).

Studies in this chapter focus on women's reactions to BS and whether these are influenced by warmth. The findings suggest that benevolent sexism goes largely unnoticed as sexism because the men who enact it are perceived as nice guys with warm attitudes toward women. As such, the warmth of benevolent sexism may serve to disarm acts of resistance in the form of protest and confrontation. Generally, the findings in this chapter are indicative of an illusion of antagonism between BS and HS. For example, women tend to rate BS as lower, and HS as higher in sexism (and prejudice). Likewise, the tendency for women to see BS as warmer than HS gives some indication that warmth might be important in such perceptions. However, the present studies do not directly investigate the perceived relationship between benevolent and hostile sexism, nor the possible role of warmth in the illusion of antagonism. As such these relationships can only be inferred. Therefore, this will be tested directly in the next chapter.

Chapter 3: The Illusion of Antagonism

Findings from Chapter 2 were consistent with the thesis that perceptions of warmth affect women's interpretation of benevolent sexism and alters their reactions to it. Specifically, compared to HS women are less likely to report experiences of BS online or to see it as sexist even though they recall experiencing BS more frequently. Importantly, findings showed that greater perceptions of warmth attributed to BS, relative to HS, indirectly influence intentions to protest BS. In Chapter 3, I examine more closely how warmth organises perceptions of BS. This includes its relationship to HS, gender role attitudes and a host of other outcomes affecting gender equality.

Previous investigations of perceptions of BS have typically focused on whether people understand its positive correlation with HS. The term "illusion of antagonism" was coined by Rudman and Fetterolf (2014) to describe the tendency to erroneously believe that HS and BS are negatively related. As discussed in Chapter 1, this has been investigated only in a few studies, with mixed results (see Barreto & Ellemers, 2005a; Bohner et al., 2010; Kilianski & Rudman, 1998). To date the strongest evidence of this illusion comes from Rudman and Fetterolf's (2014) investigation of sexist meta-perceptions. Participants were asked to complete the ASI twice, once for themselves and subsequently as they thought an average member of the other gender would. As expected, a negative relationship was observed between others' perceived BS and HS. Strictly speaking, conclusions drawn from this study are limited by the cross-sectional nature of the data. A definitive test of this "illusion" needs to experimentally manipulate one type of sexism and measure perceptions of the other. Furthermore, these earlier investigations provide no test of the possible underlying mechanism of such an effect. The examination of possible causal factors is an important

empirical question in its own right, but more practically it is also critical for the pursuit of gender equality.

According to my central thesis warmth represents one such underlying mechanism. Specifically, warmth is important in perceptions of sexism, because it confers information about an individual's intentions toward the self (Fiske et al., 2007; Cuddy et al., 2008). More importantly, warmth is a central dimension on which hostile and benevolent sexism differ. Hostile sexism is decidedly cold, referring to women as manipulative and calculated in their pursuit of unfair advantage. In contrast, BS is patently warm – conferring unique and positive characteristics to women, who are delicate and in need of male protection and reverence (Glick & Fiske, 1997; 2001). According to the SCM (Fiske, et al., 2002), warmth is inferred from a clear absence of competition with the observers' interests. As such, women in particular might see benevolent sexists as warm, because this ideology casts men and women's interests as intimately intertwined. In contrast, HS explicitly refers to competition between men and women in a zero-sum "battle of sexes" way. Moreover, research findings reflect this divergence in warmth showing that the two types of sexism predict distinctly negative and positive stereotypes about women (Glick et al., 1997). Likewise, women perceive BS to be more positive (e.g. warmer, kinder, caring) than HS (see study 3; also Barreto & Ellemers, 2005; Good & Rudman, 2010). Thus, warmth is inextricably linked to perceptions of sexism and represents a possible underlying mechanism in the illusion of antagonism.

The role of warmth in misperceptions of benevolent sexism is aided by the tendency toward cognitive consistency in person perception. Specially, research on impression formation suggest that people have a tendency to form balanced (i.e. consistent) and simple unit relations between entities (Heider, 1958a, 1958b). When we form an impression of someone (positive or negative) we are likely to extend this evaluation to other entities which

we consider to go with this person. For example, their attitudes, beliefs or behaviours (Crandall et al., 2007). Further, if we encounter additional information which is divergent in valence, we will likely discount this information to maintain consistency in our cognitions (Kelley, 1973; Roese & Morris. 1999). In respect of benevolent sexists then, perceivers will likely find it difficult to make sense of the relationship between BS and HS because of their divergent valence. More specifically, encountering a man who is a benevolent sexist (e.g. thinks women should be cherished and protected), will lead to a positive attribution about this man (e.g. he is nice guy, with warm attitudes to women). Because of the tendency toward consistency, people will assume this benevolent sexist has univalent attitudes. As such, this will make it difficult to accept any new information which is divergent in valence (e.g. that he thinks women are trying to control men). On the other hand, the tendency toward consistency will make it likely that information of the same valence will be more readily accepted (e.g. that he supports gender equality). Thus, the tendency toward consistent unit relationships between entities and the powerful influence of warmth in person perception are likely to influence misperceptions of benevolent sexist's attitudes, beliefs and behaviours.

Present Research

In the present Chapter, across three studies using correlational and experimental methods, I extended my investigation of BS to its relationship with HS and other known correlates. In addition, I tested the role of warmth in the perceived relationship between BS and these variables. Study 4 (N = 296) manipulated the sexism (BS, HS or no sexism) of a male protagonist, and participants rated the man's sexism (attitudes and behaviours), warmth, support for equality and traditional gender role attitudes. In Study 5 (N = 283), protagonists' endorsement of BS (rejecting or endorsing) was manipulated and their perceived agreement with known correlates of BS was measured. Studies 4-5, measured protagonists' warmth and tested whether it was implicated in the hypothesized effects. Finally, Study 6 (N = 211)

manipulated protagonists' warmth to examine its causal role. The results are discussed in respect of the knowing-bargain and false consciousness hypotheses of BS, and implications for how to reduce inequality are also discussed.

Study 4: Warmth in the Illusion of Antagonism

Study 4 examined whether the perceived warmth of a sexist perpetrator may be responsible for the so-called "illusion of antagonism" between BS and HS – that is, the belief that BS is negatively related to HS. Given the findings from Study 3 that women perceive BS to be warm and HS to be cold, and the results of other studies investigating the illusion of antagonism (Barreto & Ellemers, 2005; Kilianski & Rudman, 1998; Rudman & Fetterolf, 2014; but see Bohner et al., 2010), the present study aimed to clarify both the robustness and the psychological basis of the illusion. In particular, Study 4 provides the most direct experimental test of this illusion to date, by portraying a male protagonist as high in either HS or BS, and examining whether it causes him to be perceived as low in the complementary aspect of sexism. Thus, participants were presented with a man who displayed benevolent, hostile, or neither type of behaviours toward women. Dependent measures included evaluations of the male perpetrators' warmth, BS and HS attitudes, likelihood of displaying the complementary type of behaviours (in the benevolent condition, this was hostile behaviours, and in the hostile condition, this was benevolent behaviours; participants in the control condition rated the likelihood of both), and traditional gender role attitudes. I also asked participants whether they thought the man would support gender equality.

The first hypothesis was that men who engaged in benevolent (vs. control) behaviours would be perceived as lower in HS, less likely to enact HS, more supportive of equality, and less supportive of traditional gender roles. My second hypothesis was that conversely, men who engaged in hostile (vs. control) behaviours would be seen as lower in BS, less likely to enact BS, less likely to support equality and more supportive of traditional gender roles.

These predictions entail that being perceived as high in one form of sexism causes men to be perceived as lower in the other form of sexism. The third hypothesis was that this effect would be mediated by warmth, since it is related in opposing directions to BS and HS. See Figure 4 for a conceptual diagram of the expected relationships between variables.

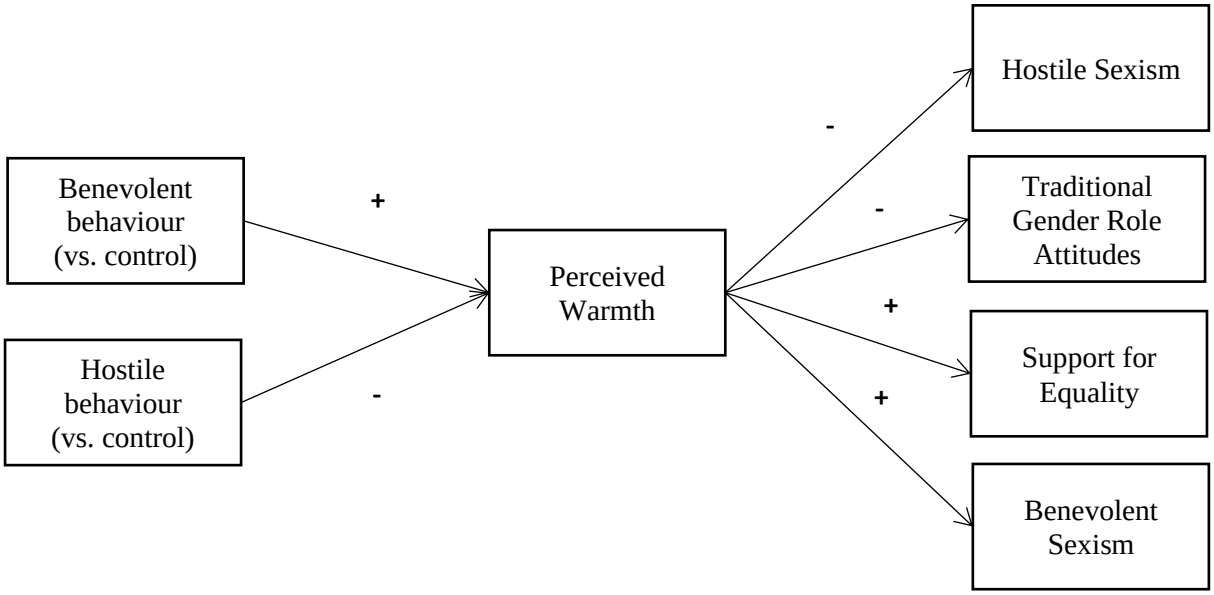

Figure 4. Conceptual diagram for the relation between type of sexist behaviour (Benevolent or Hostile compared to Control) and perceived Hostile Sexism (attitude and behaviour), Traditional Gender Role Attitudes, perceived Support for Equality and perceived Benevolent Sexism (attitude and behaviour) via perceived Warmth (Study 4).

Method

Participants

Participants were 296 American Mturk workers[8], including 170 men (M_{age} = 34.36, *SD* = 10.84) and 126 women (M_{age} = 40.57, *SD* = 13.30). Based on this sample size, sensitivity analysis indicated a sensitivity to detect an effect size of η^2_p = .03 with 80% power and alpha equal to .05. Only workers who had completed over 500 HITs and had a HIT

[8] An original sample of 301 was collected, but five cases were removed owing to a failed attention check (e.g. "At the beginning of this this survey, which of the following was Mike observed doing?". Responses were recorded as correct if the participant chose the behaviour, either HS, BS or non-sexist control, that they had read at the beginning of the study).

approval rate of greater than 95% were eligible to complete this study. Participants were compensated for their time in line with pay conventions for online crowdsourcing platforms. The majority of the sample was White (81.8%), Black (7.8%) and Asian (4.7%). The remaining 5.8% included Hispanic, Native American, Pacific-Island and other ethnicities.

Materials and Procedure

Participants read a vignette about a "30-year-old heterosexual man, Mike" who was described as engaging in three behaviours that constituted hostile (e.g. "Sexually harassing women by ogling at them and catcalling"), benevolent (e.g. "Going out of his way to hold heavy doors open for women"), or neither type of sexism (e.g. "call a female colleague "ignorant" because she belongs to a different political party to him"), adapted from Becker and Swim (2011). In the control condition, one behaviour was negative, one behaviour was positive, and one behaviour was neutral toward women (e.g. "Playing tennis with his girlfriend"). Participants then completed the first dependent measure described below, followed by all others in a random order. Finally, they provided demographic information, and were debriefed, thanked, and paid. See Appendix D for all items.

Complementary behaviours. Participants rated the likelihood that Mike would engage in the complementary sexist behaviours (in the benevolent condition, this was hostile behaviours, $\alpha = .84$; and in the hostile condition, this was benevolent behaviours, $\alpha = .76$; participants in the control condition rated the likelihood of both, HS: $\alpha = .85$, BS: $\alpha = .70$), using a seven-point scale ranging from *very unlikely* (scored as 1) to *very likely* (scored as 7).

Perceived BS and HS attitudes. Participants completed the 22-item ASI (Glick & Fiske, 1996) as they believed Mike would complete it using a Likert scale (1 = *strongly disagree*, 6 = *strongly agree*). Higher scores indicated higher levels of HS and BS (HS: "Women seek to gain power by getting control over men", $\alpha = .95$; BS: "Women should be cherished and protected by men", $\alpha = .92$).

Warmth. Participants completed 12 items to evaluate Mike's trait warmth (e.g., "Mike's behaviour suggests that he is kind.") and attitudinal warmth to women as a group (e.g., "Mike's behaviour suggests that he likes women."; 1 = *not at all, 7 = very much*). Exploratory factor analysis using maximum likelihood extractions revealed that the 12 items together comprised a single factor accounting for 84.99% of the variance ($\alpha = .98$).

Perceived support for equality. Participants completed six items ($\alpha = .89$) to assess Mike's perceived support for equality (e.g., "Mike's behaviour suggests that he is feminist."; 1 = *not at all, 7 = very much*). See Appendix E for exploratory factor analyses.

Endorsement of traditional gender roles. Participants completed the 15-item Attitudes towards Women Scale (AWS; Spence, Helmreich & Stapp, 1973) assessing perceptions of Mike's traditional views of women's roles in society (e.g., "The intellectual leadership of a community should be largely in the hands of men"; 1 = *not at all, 7 = very much*). These items were averaged to create an overall mean score, with higher scores indicating greater endorsement of traditional gender roles ($\alpha = .92$).

Results

Means and standard deviations for all study variables are displayed in Table 3. The effects generally were not moderated by participant gender[9], and therefore I collapsed across participant gender and performed a series of one-way ANOVAs with three levels of sexism (benevolent, hostile, and control) to test the hypotheses. Significant main effects were followed up with planned analyses of simple effects that contrasted the Benevolent and the Control conditions, and the Hostile and Control conditions. As shown in Table 3, the

[9] A significant Gender x Behaviour Type interaction was found on HS, $F(2,290) = 6.72$, $p < .001$, $\eta^2_p = .04$, and Traditional gender roles, $F(2,290) = 5.28$, $p = .006$, $\eta^2_p = .04$. Simple main effects revealed that both male and female participants rated the protagonist as lower on HS (men $p < .001$, women $p < .001$) and traditional gender role attitudes (men $p = .006$, women $p < .001$) in the BS (vs. control condition) and higher on HS (men $p < .001$, women $p = .006$) and traditional gender roles (men $p < .001$, women $p < .001$) in the HS (vs. control) condition. In general, male (vs. female) participants differentiated more strongly between BS and control men, and less strongly between HS and control men. All other interaction effects of gender were non-significant ($p > .233$).

experimental manipulation of sexism type was successful: higher BS scores were reported for Mike when he displayed benevolent behaviours compared to the control condition, and higher HS scores were reported for Mike when he displayed hostile behaviours compared to the control condition.

Consistent with predictions, significant main effects for Sexism Type were observed across each variable (see Table 3). Planned contrasts showed that compared to the control condition, when Mike displayed benevolent behaviours he was rated as having warmer attitudes to women, $t(196) = 14.32$, $p < .001$, $d = 2.19$, as being less likely to endorse HS attitudes, $t(196) = -10.22$, $p < .001$, $d = 1.45$, more supportive of equality, $t(196) = 6.11$, $p < .001$, $d = 0.86$, and less supportive of traditional gender role attitudes, $t(196) = -6.37$, $p < .001$, $d = 0.89$. Conversely, compared to the control condition, when Mike displayed hostile behaviours he was rated as having less warm attitudes to women, $t(194) = -15.88$, $p < .001$, $d = 2.44$, as being less likely to endorse BS attitudes, $t(194) = -7.73$, $p < .001$, $d = 1.08$, less supportive of equality, $t(194) = -11.23$, $p < .001$, $d = 1.54$ and more supportive of traditional gender role attitudes, $t(194) = 7.94$, $p < .001$, $d = 1.15$.

Complementary behaviours

I examined whether people perceived displays of HS and BS as antagonistic to each other by testing whether displays of one form of sexism were related to displays of the other form. A one-way ANOVA with two levels (BS vs. control) showed that when Mike displayed benevolent behaviours he was perceived as less likely to display hostile behaviours, $F(1, 193) = 92.48$, $p < .001$, $\eta^2_p = .32$. Also, when Mike displayed hostile behaviours he was perceived as less likely to display benevolent behaviours, $F(1, 193) = 259.01$, $p < .001$, $\eta^2_p = .57$, compared to the control condition.

Table 3.

Study 4 Means and Standard Deviations for Each Dependent Variable across Conditions

	Behaviour towards women				
	Benevolent (n = 101)	Control (n = 96)	Hostile (n = 99)	F (2, 290)	η_p^2
Warmth	6.11_a(0.76)	4.20_b(0.99)	1.99_c(0.82)	578.50*	.80
Benevolent Sexism	4.78_a(1.06)	3.77_b(1.02)	2.60_c(1.09)	101.18*	.41
Hostile Sexism	3.00_a(0.99)	4.58_b(1.17)	5.82_c(1.35)	147.89*	.51
Likelihood of Benevolent Behaviour[1]		5.68_a(1.08)	3.13_b(1.12)	259.01*	.57
Likelihood of Hostile Behaviour[1]	2.95_a(1.05)	4.64_b(1.40)		92.48*	.32
Support for Equality	4.53_a(1.11)	3.50_b(1.15)	1.87_c(0.94)	159.47*	.52
Traditional Gender Role Attitudes	3.31_a(0.85)	4.20_b(0.94)	5.24_c(0.96)	112.46*	.44

Note. Standard deviations are in parentheses. Higher means indicate greater levels of the dependent variable. Different subscripts indicate means are significantly different at $p < .05$. [1]Degrees of freedom for likelihood of benevolent or hostile behaviour were (1,193). *$p < .001$.

Mediation analyses

Next, I tested a mediation model using the PROCESS macro (Model 4; Hayes, 2017) to examine the indirect effect of sexist behaviours on these outcomes through warmth[10]. Type of Sexism displayed was dummy coded as (BS/HS = 1; Control = 0) and entered as the independent variable (X), warmth was entered as the mediator (M), and each of the four dependent variables (i.e. sexist attitudes, sexist behaviours, support for gender equality, traditional gender roles attitudes) was entered in a separate model (Y). Significance of the

[10] Note that all mediation analyses held when either trait or attitudinal warmth were entered as mediators.

indirect path was assessed using 95% bias-corrected and accelerated confidence intervals with 10,000 bootstrap resamples. As predicted, Mike's display of benevolent behaviours predicted greater perceived warmth compared to the control condition, b = 1.92 [1.68, 2.16], and Mike's display of hostile behaviours predicted lower perceived warmth compared to the control condition, b = -2.21, [-2.45, -1.97].

For each dependent variable, indirect effects via warmth conformed to the predictions as outlined conceptually in Figure 3. Via warmth, displays of BS led the male protagonist (compared to the control condition) to be perceived as: less prone to endorse HS statements, *indirect b* = -0.90 [-1.21, -0.62]; less likely to display HS behaviours, *indirect b* = -1.32 [-1.74, -0.89; more supportive of gender equality, *indirect b* = 1.20 [0.95, 1.48]; and lower in traditional gender roles, *indirect b* = -0.87 [-1.10, -0.66]. Conversely, displays of HS led the male protagonist to be perceived as: less prone to endorse BS statements, *indirect b* = -0.69 [-1.02, -0.40]; less likely to display BS behaviourally, *indirect b* = -1.35 [-1.81, -0.96]; less supportive of gender equality, *indirect b* = -1.39 [-1.72, -1.09]; and lower in traditional gender roles, *indirect b* = 1.01 [0.74, 1.30]. In addition, direct effects were only present for complementary sexist attitudes, hostile attitudes b = -.67, t = -3.14, SE = .21, p = .002, and benevolent attitudes, b = -.48, SE = .21, t = -2.26, p = .023; and benevolent behaviours, b = -1.20, SE = .22, t = -5.52, p < .001 (hostile behaviours: p > .099). No direct effects were observed for perceived support for equality or traditional gender role attitudes, all ps > .157.

Discussion

The results of Study 4 provide direct evidence for the illusion of antagonism between BS and HS (Rudman & Fetterolf, 2014; see also Kilianski & Rudman, 1998). When a male protagonist displayed benevolent behaviours, he was judged to endorse hostile sexism less, compared to the control condition. Conversely, when a male protagonist displayed hostile behaviours, he was judged to endorse benevolent sexism less, compared to the control

condition. Moreover, this study provided evidence for perceived warmth of the benevolent behaviours as the psychological mechanism underlying the illusion of antagonism, and highlighted other misunderstandings of benevolent sexism. Notably, benevolent sexist behaviours led to evaluations of the male protagonist as more progressive than the ideology warrants—that is, the male protagonist was viewed as being less likely to support traditional gender roles and more likely to support feminist causes in support of gender equality. A limitation of this study, however, is that only male protagonists were presented. The next study investigates whether HS and BS are also perceived as antagonistic among women.

Another limitation, is that participants' understanding of BS was only been tested in relation to HS, gender role attitudes, and support for gender equality. As we have seen, BS is related to a host of other factors that are also antagonistic to gender inequality. If people fundamentally misunderstand BS, then people should generally be unable to grasp the relationship between BS and other adverse outcomes for women. The next two studies were designed to further test this possibility.

Study 5: The Scope of (mis)Understanding of Benevolent Sexism

In Study 4, when men display BS, they are seen as warmer, and subsequently they are seen as less sexist, less likely to endorse HS, and more supportive of gender equality. Given the conservative policy positions and traditional beliefs that co-occur with BS (Christopher & Mull, 2006; Jost & Kay, 2005; Osbourne & Davies, 2012; Radke, Hornsey, Sibley, & Barlow, 2017), this perception that BS reflects a more progressive attitude toward women demonstrates a fundamental misunderstanding of BS. The present study further examined whether people understand BS in two specific ways.

First, I sought to examine whether the illusion of antagonism applies, and applies as strongly, to female protagonists. The existing empirical literature is not clear about whether sexism is evaluated and perceived to function in the same way for male and female

protagonists. In the only known study to report on protagonist gender, Rudman and Fetterolf (2014) found that ratings of BS and HS were negatively correlated regardless of whether the protagonists were male or female. Nonetheless, there are theoretical and empirical grounds to predict that the illusion of antagonism will be stronger for men. First, since BS explicitly obliges men to be loving and altruistic toward women, men who endorse this ideology are likely to be seen as loving and prosocial. In contrast, endorsing BS may not make women seem as warm because they are not tacitly signing up to the same obligations. Second, most protests about sexism refer to male perpetrators (Study 1). Men are rated as higher in HS and lower in BS (Rudman & Fetterolf, 2014; Sibley et al., 2009). HS is strongly associated with "sexism" as commonly understood (Barreto & Ellemers, 2005), whereas learning that a man acts in a benevolent fashion toward women leads people to see him as less sexist (Study 4). This suggests that for men (but not women), endorsing BS may serve to defuse a default perception that they are prone to affectively negative, sexist attitudes and behaviours toward women. I therefore expected that BS and HS would be seen as more antagonistic among male than female protagonists, and that this effect would be mediated by perceived warmth.

Additionally, I sought to broaden the scope of my inquiry by examining whether the misunderstanding of BS extends beyond its perceived relationship with HS and gender equality. Much of the research on BS has focused on the correlates of endorsing BS for both women and men. The chosen variables reflect an exhaustive investigation of the literature and represent important outcomes for women's social, political and personal equality. As such, if people accurately understand BS as an ideology which legitimises gender differences and related inequalities I would expect their evaluations to be in the direction specified in the research. If, however people do not understand BS I would not expect them to understand how it relates to the described outcomes, in this case I would expect a null evaluation or an evaluation in the opposite direction specified in the research. To understand which

evaluations would denote an accurate understanding please see the review of benevolent sexism's effects in Chapter 1. In the following section I will merely summarise the expected effects for each of the dependent variables. Note that dependent variables (as keeping with Chapter 1) are organised in respect of the group-level, relational and intrapersonal nature of each.

Present Study and Summary of Hypotheses

Participants read about a male and female protagonist (within-subjects), both of whom either rejected or endorsed benevolent sexism (between-subjects). Following this, they rated the protagonists' perceived agreement with HS, their warmth and endorsement of the other outcomes related to BS. The first set of hypotheses relate to the replication of study 4 effects and whether these held for female protagonists. I expected that endorsement of BS would increase perceptions of warmth and decrease perceptions of HS. In addition, I expected that this effect will be mediated by perceived warmth, and stronger amongst male than female protagonists.

The second set of hypotheses relate to other known correlates of BS. I will briefly summarise the relationship between BS and each of these variables. For group level variables, BS is negatively related to *public support for gender equality* (Becker & Wright, 2011), and support for *elective and traumatic abortions* (Huang et al., 2016); is unrelated to *domestic support for equality* (Sudkämper et al., 2018); and is positively associated with *disapproval of public breastfeeding* (Acker, 2009), *acceptance of the gender status quo* (Jost & Kay, 2005), *blaming of rape victims* (Viki & Abrams, 2002), *justification of domestic violence* (Glick et al., 2002), *acceptance of paternalistic restrictions on pregnant women's behaviour* (Sutton et al., 2011), and *enjoyment of sexist humour* (Eyssel & Bohner, 2007). For relational variables, BS is positively associated with *endorsement of traditional(thin) beauty ideals* (Forbes et al., 2004; Swami et al., 2016), *acceptance of paternalistic*

justifications for behaviour restrictions (Moya et al., 2007), *unrealistic relationship expectations* (Hammond & Overall, 2013), and a *preference for men to initiate dating* (Paytner & Leaper, 2016). Finally, at an intrapersonal level BS is positively associated with *life satisfaction* (Hammond & Sibley, 2011; Napier et al., 2010), greater *psychological entitlement* (Hammond et al., 2014), *self-objectification and body shame* (Calogero & Jost, 2011), and *reduced academic/career goal pursuit* (Farkas & Leaper, 2016; Montañés et al., 2012).

On the one hand, participants' evaluations of the relations between BS and these variables in the directions specified here would reflect an understanding of the functions of BS. Notably, an understanding notably of its role as part of a system of social control that does not support the interests of women as individuals or as a group (aside from its objective positive correlation with life satisfaction). On the other hand, participants' evaluations of the relations between BS and these variables in the opposite directions from what is specified here (or evaluations of no relationship between them) would reflect a misunderstanding of the functions of BS as a form of social control and a misguided belief that BS does support the interests of women. I also expected BS would have a stronger effect on the perceived warmth of men in particular and would thus lead to more misunderstandings of the functions of BS.

Method

Participants

Participants were 283 undergraduate psychology students at a University in the south east region of England[11], including 43 men (M_{age} = 20.44, SD = 3.51), 239 women (M_{age} = 20.21, SD = 3.90) and one transgender person (M_{age} = 20.00). Based on this sample size, sensitivity

[11] The original sample was 297, but fourteen participants were removed owing to multiple failed attention checks, leaving a final sample of 283 for analyses.

analysis using GPower indicated a sensitivity to detect an effect size of $\eta^2_p = .01$ with 80% power and alpha of 0.05. The sample was White/White British (72.4%), Asian/Asian British (11.7%), Black/Black British (8.1%), or Other ethnicity (7.8%).

Materials and Procedure

Participants read two randomly presented vignettes, about a male and female protagonist (within-subjects) who either rejected (low sexist) or endorsed (high sexist) a set of benevolent sexist statements (between-subjects). Three statements were drawn from the Benevolent sexism subscale of the ASI (Glick & Fiske, 1996) for this purpose: "Men are incomplete without women", "Men should cherish and protect women", and "Women have a quality of purity that few men possess." Participants then completed the dependent measures by rating the likelihood that the protagonists would endorse each dependent measure. Specifically, participants were instructed to "please indicate to what extent each of these statements are likely to be accurate descriptions of [the protagonist]". All dependent measures were randomly presented, and rated using an eight-point scale ranging from *not at all* (scored as 1) to *very much* (scored as 8). The dependent measures were adapted from published research findings on the correlates and experimental effects of benevolent sexism. Participants completed 15 dependent measures each for both the male and female protagonists, and one additional measure for male and five additional measures for female protagonists (totalling 36 dependent measures). Finally, participants provided demographic information, were debriefed, thanked and given course credit.

Warmth. Participants evaluated the level of warmth of both protagonists separately on 6-items measuring warmth toward women (e.g., "is warm toward women", "likes women", "has positive attitudes toward women") and personal warmth (e.g., "is a warm person", "is nice", "is likable"), using an eight-point scale (1 = *not at all*, 8 = *very much*). Scale reliability was good for both the male and female protagonists (Male: $\alpha = .95$, Female:

α = .91). Exploratory factor analyses using maximum likelihood extraction, with oblimin rotation suggested a single factor was underlying these items for male protagonists (mean item loading .87; range .77 to .92). For female protagonists, two factors were suggested, with mean item loadings of .88 (range .85 to .94) and .83 (range .76 to .91), however given the high level of correlation between items (range from r = .51 to .81) and very good reliability of these items a composite score of warmth was also created for female protagonists (see Appendix F for full reporting of EFA).

Hostile sexism. Participants evaluated each protagonist's level of hostile sexism (3 items: e.g., "believes that most women interpret innocent remarks or acts as sexist"). All items were drawn from the ASI (Glick & Fiske, 1996) and scale reliability was very good for both the male and female protagonists (Male: α = .94, Female: α = .91).

Other Dependent Measures

Group level variables. Participants responded on a scale from 1 (*not at all*) to 8 (*very much*) to the following Group-level items: "willing to protest, sign petitions and take other action to support equality for women" (*Public Support for Equality*; Becker & Wright, 2011), "willing to split housework equally with their wives/partners" (*Domestic Support for Equality*; Sudkämper et al., 2018), "Supports a woman's legal right to have an abortion on grounds other than to protect her physical health (e.g., poverty, does not want a child, has no partner)" (*Supports Elective Abortion*; Huang et al., 2016), "Supports a woman's legal right to have an abortion when it is essential for her physical health" (*Supports Traumatic Abortion*; Huang et al., 2016), "disapproves of breastfeeding in public" (*Disapproval of Public Breastfeeding*; Acker, 2009), "believes that the relationship between men and women is fair and equal" (*Acceptance Gender Status Quo*; Jost & Kay, 2005), "would blame a woman for being raped by a man with whom she is having an extramarital affair" (*Blaming of Rape Victims*; Viki & Abrams, 2002), "Minimizes and justifies domestic violence perpetrated

by men against their wives/partners" (*Justification of Domestic Violence*; Glick et al., 2002), "would try to prevent pregnant women from doing what they want, if (s)he thinks their choices could harm the fetus/baby" (*Acceptance of Paternalistic Restrictions on Pregnant Women*; Sutton et al., 2011), and "Laughs at sexist jokes and doesn't find them offensive" (*Enjoyment of Sexist Humour*; Eyssel & Bohner, 2007).

Relational variables. Similarly, participants responded using the same response scale to these Relational items: "rates thinner women as more attractive" (*Endorsement of Traditional(thin) Beauty Ideals*; Forbes et al., 2004), "accepts protective justifications for restrictions on their behaviour (e.g., a job may be dangerous for women)" (*Acceptance of Paternalistic Justifications for Behaviour Restrictions*; Moya et al., 2007), "believes potential relationship partners are either destined to get along or they are not", "when she and her partner disagree, she feels like their relationship is falling apart", "believes a partner should know what she is thinking and feeling without her having to tell them"(*Unrealistic Relationship Expectations,* 3-items; Hammond & Overall, 2013; Female only: $\alpha = .63$), and "believes that men should take control and initiative in dating (e.g., decide where the date is)" (*Preference for men to initiate dating*; Paytner & Leaper, 2016).

Intrapersonal variables. Finally, participants responded using the same scale to these Intrapersonal and well-being items: "is better psychologically adjusted and satisfied with life" (*Life Satisfaction*; Hammond & Sibley, 2011), "feels entitled to more of everything", "feels (s)he deserves more things in life", "demands the best because (s)he is worth it" (*Psychological Entitlement,* 3-items; Hammond et al., 2014; Male: $\alpha = .90$; Female: $\alpha = .82$), "values appearance-based attributes (e.g. physical attractiveness) to be more important than non-observable competence-based attributes (e.g., energy levels)" (*Self-Objectification*; Calogero & Jost, 2011), "experiences shame about her appearance and body"

(*Body Shame*; Calogero & Jost, 2011), and "has less ambitious career goals" (*Academic/Career Goal Pursuit*; Montañés et al., 2012).

Results

Means and standard deviations for all dependent variables are reported in Tables 4 and 5. To investigate the hypotheses, 2 (Benevolent Sexism: endorse, reject) x 2 (Protagonist Gender: male, female) mixed ANOVAs were conducted with repeated measures on the last factor for each of the dependent variables measured for both protagonists[12]. Consistent with predictions, a significant main effect of BS was observed for all of the dependent variables, except for acceptance of the gender status quo, psychological entitlement, and life satisfaction (all *p*s > .260). Protagonists who endorsed (vs. rejected) BS were seen as higher in warmth, public and domestic support for gender equality, and support for elective and traumatic abortion, and seen as lower in hostile sexism, blaming of rape victims, justification of domestic violence, and enjoyment of sexist humour.

As predicted, I also observed significant BS x Protagonist gender interactions for most of the dependent variables. Crucially, both men and women who endorsed BS (vs. rejected BS) were perceived as warmer, but this effect was significantly more pronounced for men. Among the group-level variables the same interaction was observed: participants perceived male and female protagonists who endorsed BS to be less likely to endorse HS and more likely to publicly support gender equality, and this effect was stronger for male protagonists. Male protagonists who endorsed BS were incorrectly perceived to be more inclined to support abortion rights, and less inclined to disapprove of public breastfeeding, blame rape victims, justify domestic violence, enjoy sexist humour, all of which reflect a misunderstanding of the functions and consequences of BS. A significant interaction was

[12] Please note that where a dependent variable was only tested for either the male or female protagonist a one-way ANOVA was conducted with BS (high vs low) as the independent measures.

also observed for acceptance of the gender status quo, in which simple effects showed a trend for male protagonists endorsing BS to be seen as system justifiers and female protagonists endorsing BS to be system rejecters, but neither of these simple effects attained significance. Of the group level variables, only paternalistic restrictions on pregnant women's behaviour showed a main effect of BS endorsement with no moderation by protagonist gender: participants perceived that benevolent sexists would be more inclined to restrict pregnant women's behaviour. In addition, perceived domestic support for gender equality, measured only for the male protagonist, was perceived (incorrectly) to be higher when BS was endorsed.

The effects for the relational variables reflected an understanding of some functions and consequences of BS and a misunderstanding of others. Endorsers of BS were (incorrectly) perceived to be less likely to endorse traditional (thin) beauty ideals (although a marginal interaction and simple effects analysis suggested that this effect was stronger for or confined to male protagonists). Among the other relational variables, assessed only for female protagonists, women who endorsed BS were (correctly) perceived to be more likely to accept paternalistic restrictions from their male spouses, and (correctly) to harbour more unrealistic relationship expectations. Finally, the other relational variable assessed for both male and female protagonists showed a BS x Protagonist Gender interaction effect, in which endorsing BS (correctly) increased the extent to which female protagonists were perceived to believe men should take the initiative in dating (although this effect was not significant for male protagonists).

The intrapersonal variables assessed for both male and female protagonists also showed interaction effects. Endorsing BS increased perceptions of greater life satisfaction for male protagonists but made no difference to the perceived life satisfaction of women. Endorsing (vs. rejecting) BS led women to be perceived as feeling more entitled, and men to

be perceived as feeling less entitled. For variables assessed only for female protagonists (because previous research on these objective correlates of BS was confined to female participants), endorsing BS led women to be (correctly) perceived as higher in self-objectification, body shame, and to harbour less ambitious career goals. Together, the effects for the intrapersonal variables reflected an understanding of the consequences of BS, especially for women.

Table 4.

Study 5 Means, Standard Deviations, Main Effects of Benevolent Sexism and Interaction Effects between Benevolent Sexism and Protagonist Gender for the Group Level Dependent Variables.

		Male Protagonist		Female Protagonist		Main Effect BS endorsement			BS x Protagonist gender		
		Rej BS	End BS	Rej BS	End BS	*F* (1, 281)	*p*	η^2_p	*F* (1, 281)	*p*	η^2_p
Group-Level	Warmth	$4.71_a(1.65)$	$6.18_b(1.18)$	$5.05_a(1.33)$	$5.58_b(1.26)$	57.08	.001	.17	32.60	.001	.10
	Hostile Sexism	$4.35_a(1.15)$	$2.97_b(1.34)$	$3.56_a(1.41)$	$3.17_b(1.25)$	53.55	.001	.16	28.49	.001	.09
	Public Support Equality	$3.99_a(2.01)$	$5.50_b(1.92)$	$5.16_a(1.89)$	$5.74_b(1.78)$	31.79	.001	.10	13.16	.001	.04
	Domestic Support Equality	$4.53_a(2.08)$	$5.35_b(1.76)$			12.71	.001	.04			
	Support Elective Abortion	$4.44_a(1.79)$	$5.32_b(1.85)$	$5.62_a(1.72)$	$5.79_a(1.72)$	8.26	.004	.03	12.43	.001	.04
	Support Traumatic Abortion	$4.76_a(1.86)$	$5.94_b(1.77)$	$5.66_a(1.89)$	$6.20_b(1.62)$	22.69	.001	.08	7.02	.008	.02
	Disapprove Pub. Breastfeeding	$3.94_a(2.05)$	$2.98_b(1.86)$	$3.02_a(1.68)$	$2.71_a(1.76)$	11.77	.001	.04	8.23	.004	.03
	Gender Status Quo	$4.47_a(1.84)$	$4.87_a(1.99)$	$4.01_a(1.63)$	$3.75_a(1.65)$	0.21	.649	.00	4.54	.034	.02
	Blame Rape Victim	$3.76_a(2.08)$	$2.53_b(1.66)$	$2.62_a(1.62)$	$2.46_a(1.73)$	16.57	.001	.06	15.93	.001	.05
	Justify Domestic Violence	$3.64_a(2.09)$	$2.76_b(2.02)$	$2.88_a(1.68)$	$2.49_a(1.79)$	12.47	.001	.04	3.74	.054	.01
	Pregnant Women's Choices	$4.21_a(1.87)$	$4.58_a(2.03)$	$3.69_a(1.83)$	$4.11_a(2.03)$	4.16	.040	.02	0.043	.836	.00
	Enjoy Sexist Humour	$4.56_a(2.13)$	$2.99_b(1.78)$	$3.42_a(1.94)$	$2.95_a(1.90)$	31.83	.001	.10	15.18	.001	.05

Note. $N = 283$. Rej = Reject. Pub. = Public. Rel. = Relationship. Pregnant Women's Choice = Paternalistic Restrictions on Pregnant Women's choice. Standard deviations are in parentheses. Higher means indicate greater levels of that variables except where the direction of the measure is explicitly indicated. Means with different subscripts are significantly different within condition at $p < .01$.

Table 5.

Study 5 Means, Standard Deviations, Main Effects of Benevolent Sexism and Interaction Effects between Benevolent Sexism and Protagonist Gender for the Relational and Intrapersonal Dependent Variables.

		Male Protagonist		Female Protagonist		Main Effect BS endorsement			BS x Protagonist gender		
		Rej BS	End BS	Rej BS	End BS	*F* (1, 281)	*p*	η^2_p	*F* (1, 281)	*p*	η^2_p
Relational	Traditional(thin) Body Ideal	4.30_a(1.99)	3.71_b(1.93)	3.76_a(1.71)	3.58_a(1.94)	4.01	.050	.01	3.18	.076	.01
	Accepts Paternalistic Justifications			3.59_a(1.77)	4.53_b(1.89)	19.85	.001	.06			
	Unrealistic Rel. Expectations			4.09_a(1.18)	4.71_b(1.27)	17.76	.001	.06			
	Men Initiate Dating	4.60_a(2.03)	4.96_a(1.92)	3.46_a(1.85)	4.81_b(2.00)	19.67	.001	.07	15.12	.001	.05
Intrapersonal	Life Satisfaction	4.31_a(1.61)	4.92_b(1.63)	4.70_a(1.53)	4.45_a(1.51)	1.06	.304	.00	19.47	.001	.07
	Psych Entitlement	4.38_a(1.63)	3.67_b(1.45)	4.37_a(1.52)	5.24_b(1.42)	0.15	.699	.00	44.21	.001	.14
	Self-objectification			3.88_a(1.71)	4.12_b(1.79)	1.34	.249	.01			
	Body Shame			3.94_a(1.66)	4.17_b(1.78)	1.24	.269	.00			
	Reduced Career goals			2.92_a(1.57)	3.27_b(1.86)	2.81	.095	.01			

Note. $N = 283$. Rej = Reject. Rel. = Relationship. Standard deviations are in parentheses. Higher means indicate greater levels of that variables except where the direction of the measure is explicitly indicated. Means with different subscripts are significantly different within condition at $p < .01$.

Mediation analyses

Having found that endorsement of BS had significant effects on each of the dependent variables, for male protagonists, female protagonists, or both, I then turned to examining the mediating role of warmth in these effects. For preliminary correlational analyses linking warmth to each dependent variable for each protagonist, consult Appendix G. In my final set of analyses, I tested perceived warmth as the mediating mechanism linking BS to this array of dependent variables. Specifically, I tested a series of mediation models using the Process macro (Model 4) to examine the direct and indirect effect of BS on the dependent variables through perceived warmth separately for each protagonist gender. BS was dummy coded (Endorse = 1; Reject = -1) and entered as the independent variable (X), perceived warmth was entered as the mediator (M), and each dependent variable was entered separately into its own model (Y). Significance of the indirect path was assessed using 95% bias-corrected and accelerated confidence intervals with 10,000 bootstrap resamples. All effects are reported in Tables 6 and 7, but the indirect effects through perceived warmth of the protagonist were of greatest theoretical interest, and therefore I focus on those effects here.

The results indicated that of the 35 mediation models tested, there were only six models in which perceived warmth did not operate as a mediating mechanism linking BS to dependent variables[13]. Specifically, there was no significant indirect effect through perceived warmth on acceptance of the gender status quo and paternalistic restrictions on pregnant women's behaviour for the male or female protagonists. For male protagonists, I did not observe a significant indirect effect on preferring that men initiate dating. For female

[13] Note that all mediation analyses held when the male protagonist's trait and attitudinal warmth were substituted for the warmth composite score. For the female protagonist most, indirect effects via Trait warmth held except for preference for acceptance of paternalistic restrictions on pregnant women's behaviour, indirect *b* = -0.02 [-0.07, 0.01]; traditional(thin) beauty ideals, indirect *b* = -0.03 [-0.10, 0.00]; men to initiate dating, indirect *b* = -0.02 [-0.08, 0.02], and self-objectification, indirect *b* = -0.02 [-0.08, 0.01].

protagonists, I also did not observe a significant indirect effect on unrealistic relationship expectations, psychological entitlement, body shame, and only weakly on self-objectification.

For the remaining variables assessed for each protagonist gender, the perceived warmth of the protagonist significantly linked the endorsement of BS to these group-level, relational and intrapersonal outcomes, even in the absence of any direct (or total) effects of BS on these variables. Collectively, these findings implicate the perceived warmth of the protagonist as a critical psychological basis for misunderstanding the function of BS. This was particularly relevant for the group-level variables whereby perceived warmth seemed to mask the social reality that BS upholds socially conservative beliefs and policy positions that constrain women's civil rights.

Table 6.

Study 5 Multiple Indirect Effects for the Relation between Level of Benevolent Sexism (Sexist Compared to Non-Sexist) and the Group-Level Dependent Variables via Perceived Warmth of the Protagonist. Statistics for each Path are Standardized.

Dependent Variables		Benevolent Sexism (reject vs. endorse)					
		Male Protagonist			Female Protagonist		
		Total	Direct	Indirect	Total	Direct	Indirect
Group-level	Hostile sexism	-0.49***	-0.36***	-0.13 [-0.20, -.06]	-0.15**	-0.07	-0.08 [-0.14, -0.03]
	Public Support Equality	0.36***	0.03	0.33 [0.25, 0.41]	0.17**	0.02	0.14 [0.06, 0.21]
	Domestic Support Equality	0.21***	-0.15**	0.36 [0.27, 0.45]			
	Support Elective Abortion	0.23***	-0.04	0.28 [0.20, 0.36]	0.05	-0.08	0.13 [0.06, 0.21]
	Support Traumatic Abortion	0.31***	-0.02	0.33 [0.25, 0.41]	0.15**	0.02	0.13 [0.06, 0.21]
	Disapprove Public Breastfeeding	-0.24***	-0.01	-0.23 [-0.32, -0.15]	-0.09	0.01	-0.10 [-0.17, -0.04]
	Gender Status Quo	0.10	0.12	-0.02 [-0.10, 0.06]	-0.08	-0.10	0.02 [-0.01, 0.05]
	Blame Rape Victim	-0.31***	-0.03	-0.28 [-0.36, -0.19]	-0.05	0.05	-0.10 [-0.17, -0.04]
	Justify Domestic Violence	-0.21***	-0.11	-0.10 [-0.18, -0.03]	-0.11^{+}	-0.05	-0.07 [-0.13, -0.03]
	Pregnant Women's Choices	0.09	0.12†	-0.03 [-0.12, 0.04]	0.11^{+}	0.13*	-0.02 [-0.06, 0.01]
	Enjoy Sexist Humour	-0.37***	-0.14**	-0.23 [-0.32, -0.15]	-0.12*	-0.05	-0.07 [-0.13, -0.03]

Note. $N = 283$. Pregnant Women's Choice = Paternalistic Restrictions on Pregnant Women's choice. Standard deviations are in parentheses. Where the direction of the measure is not explicitly indicated, assume a positive direction (e.g. Gender Status Quo = endorses the gender status quo). $^{*}p < .05$. $^{**}p < .01$. $^{***}p < .001$. $^{†}p > .058$

Table 7.

Study 5 Multiple Indirect Effects for the Relation between Level of Benevolent Sexism (Sexist Compared to Non-Sexist) and the Relational and Intrapersonal Dependent Variables via Perceived Warmth of the Protagonist. Statistics for each Path are Standardized.

Dependent Variables		Benevolent Sexism (reject vs. endorse)					
		Male Protagonist			Female Protagonist		
		Total	Direct	Indirect	Total	Direct	Indirect
Relational	Traditional(thin) Body Ideal	-0.15**	-0.03	-0.12 [-0.21, -0.05]	-0.05	-0.01	-0.04 [-0.09, -0.01]
	Accepts Paternalism				0.26***	0.30***	-0.03 [-0.08, -0.01]
	Unrealistic Rel. Expectations				0.24***	0.26***	-0.02 [-0.06, 0.01]
	Men Initiate Dating	0.09	0.16*	-0.07 [-0.15, 0.01]	0.33***	0.37***	-0.04 [-0.09, -0.01]
Intrapersonal	Life Satisfaction	0.19**	-0.12*	0.31 [0.23, 0.40]	-0.08	-0.21***	0.12 [0.06, 0.20]
	Psych Entitlement	-0.23***	-0.02	-0.21 [-0.31, -0.12]	0.28***	0.27***	0.01 [-0.02, 0.05]
	Self-objectification				0.07	0.10	-0.03 [-0.07, -0.00]
	Body Shame				0.07	0.09	-0.02 [-0.06, 0.01]
	Reduced Career Goals				0.10	0.16**	-0.07 [-0.12, -0.03]

Note. $N = 283$. Rel. = Relationship. Psych = Psychological. Standard deviations are in parentheses. Where the direction of the measure is not explicitly indicated, assume a positive direction (e.g. Body Shame = greater body shame). $*p < .05$. $**p < .01$. $*** p < .001$.

Discussion

Study 5 confirmed that participants misunderstand the psychosocial correlates of BS, especially when endorsed by men, and that this misunderstanding extends well beyond its antagonistic relation with HS and explicit attitudes toward gender equality. Believing that men endorsed (vs. rejected) BS caused participants to see those men as less likely to endorse HS, disapprove of public breastfeeding, blame rape victims, justify domestic violence, and enjoy sexist humour. Men who endorsed BS were also seen as more likely to support and take action to support gender equality – whether by participating in collective action such as protests, or by contributing equally to domestic duties in their homes, and to support elective and traumatic abortion. In all cases, these perceptions can be said to be mistaken insofar as they are contradicted by research into the objective correlates of BS, and in all cases, they were mediated by perceptions that men who endorse BS are warm and have warm attitudes toward women.

The present study also provides evidence that participants misunderstood many of the consequences of *women's* endorsement of BS, especially on group-level variables. Women who endorsed (vs. rejected) BS were seen as lower in HS, providing support for the illusion of antagonism among women. This effect was also mediated by the perception that women who endorsed BS were warmer. Further, women who endorsed BS were also seen as less likely to support women's right to abortion on medical grounds (i.e., "traumatic" abortion). As for male protagonists, these misperceptions were mediated by warmth, and even when simple effects were not significant, women's endorsement of BS indirectly affected perceptions of their greater justification of domestic violence and endorsement of traditional (thin) beauty ideals. However, effects for female protagonists were generally less pronounced. Notably, participants generally did not misunderstand the relational and intrapersonal implications of BS for women. Benevolent sexist women were seen as higher

in life satisfaction, but also more likely to accept paternalistic instructions from their partners, more likely to be concerned about their appearance (self-objectification) and to experience body shame, and less likely to have ambitious academic/career goals.

The present results indicate that participants are especially likely to misunderstand the group-level functions of BS. Further, they are especially likely to misunderstand the functions of men's BS. The perception that benevolent sexist men are nice guys with warm attitudes toward women appears to be powerful enough to derail the understanding of sexism. I suggest this perception is rooted in the belief that such men are willing to assume the self-sacrificial, protective role that the ideology requires of them, as seen in the ratings of BS men as feeling less entitled, for example. Since BS does not explicitly require women to make sacrifices for men, people seem less inclined to moralise women's endorsement of BS. Women's BS is not only less strongly associated with warmth, but it is also rather accurately perceived to be associated with traditionally feminine values and ambitions. Of course, an important limitation of these findings, like those of Studies 2-4, is that the role of warmth as a mediator can only be inferred from patterns of correlation. In the final study, I set out to address this limitation.

Study 6: The Causal Role of Warmth

In the previous studies I have *measured* perceived warmth and found that it varies as a function of sexism displayed by protagonists, increasing with BS and decreasing with HS (Studies 2-5). I also found that perceived warmth co-occurs with an array of group-level, relational, and intrapersonal variables previously linked to the endorsement of BS. Mediation analyses suggested that warmth may intervene in relations between BS and HS, as well as support for equality and an array of other attitudes and behaviours toward women. In the next and final study, I *manipulated* perceived warmth in order to test whether it plays a *causal* role in people's misunderstandings of the functions of BS.

Participants read vignettes about a male and female protagonist described as either warm or cold toward women, and then rated the protagonists on the same dependent variables as in Study 5. I expected that describing a man as warm (vs. cold) would cause him to be seen as simultaneously higher in BS and lower in HS. These simultaneous effects would indicate that warmth is causally responsible for the perceived negative correlation between BS and HS (i.e., the illusion of antagonism). I also expected manipulations of warmth to affect other perceptions of the man's attitudes and behaviours concerning women, since these were each correlated with warmth in Study 5. This implies that correlations between BS and other attitudes and behaviours will be attenuated when the manipulated level of warmth is partialled out.

As in Study 5, I included male and female protagonists. Analysis of protagonist gender and the results of Studies 5 suggested that effects may hold only among male protagonists. However, to avoid difficulties of predicting the null hypothesis, I analysed male and female protagonists separately to test whether the effects held for each gender. I also tested whether protagonist gender moderated the effect of warmth on perceived BS, predicting a larger effect for male compared to female protagonists, and in an exploratory fashion, also examined whether protagonist gender moderated the effect of warmth on each of the dependent variables.

Method

Participants

Participants were 211 British adults, including 110 men[14], 100 women, and 1 transgender person, recruited via the crowd sourcing platform Prolific Academic. Only participants with an approval rating greater than 90% were eligible to complete the study.

[14] A human error during data collection meant that no data was collected on participants' age. Prolific Academic (2017) reports that the majority (62%) of their participants are in aged between 20-35 years, with a range from 18 – 91.

Based on an effect size $\eta^2_p = .04$ a priori power analysis for a within-subjects design using GPower recommended a sample size of 172 at 80% power. This was increased to 212 to allow for incomplete responses and exclusion based on attention check questions. One participant was removed owing to multiple failed attention checks. Sensitivity analyses (using GPower) with a final sample size of 211, indicated a sensitivity to detect an effect size of $\eta^2_p = .02$ with 80% power and alpha equal to .05. The sample was ethnically White/White British (91%), Asian British/Asian (6.2%), Black British/Black (1.4%) and other ethnicities (1.4%).

Materials and Procedure

Participants read two randomly presented vignettes containing the warmth manipulations separately, one about a male and the other about a female protagonist (within-subjects). Participants then completed the dependent measures, in a random order, by rating the likelihood that the protagonists would endorse each dependent measure. Finally, participants provided demographic information, were debriefed, thanked and paid.

Warmth manipulation. To manipulate perceived warmth, protagonists were described as having warm or cold attitudes toward women (between-subjects). Three statements were adapted from the dependent measure of Study 3 and were similar in content to other measurements of warmth in the literature (see Fiske et al., 2002; Fiske et al., 2007). For high warmth, protagonists were described as "(s)he likes women, has warm feelings, and positive attitudes toward them". For low warmth, protagonists were described as "(s)he dislikes women, has cold feelings, and negative attitudes toward them".

Benevolent sexism. Participants evaluated both protagonists on benevolent sexism. Items were taken from the ASI (e.g., "Women have a quality of purity that few men possess"; Male: $\alpha = .87$; Female: $\alpha = .71$) and were measured on eight-point scales (1 = *not at all* to 8 = *very much*).

Dependent variables. As in Study 5, participants indicated the extent to which each statement was an accurate description of the protagonist, using an eight-point scale (1 = *not at all,* 8 = *very much*). All dependent measures were identical to Study 5 (including HS). Participants completed 15 dependent measures each for the male and female protagonists, and one further measure for male protagonists and five further for female protagonists (totalling 36 dependent measures).

Results

Means and standard deviations for all dependent variables are reported in Tables 8 and 9. Separate 2 (Warmth: high, low) x 2 (Protagonist gender: male, female) mixed ANOVAs were conducted with repeated measures on the last factor for each of the dependent variables measured for both protagonists. Consistent with the expectation that warmth exerts a causal influence on perceptions of BS and other attitudes and behaviours toward women, a significant main effect of warmth was observed for all dependent variables. Protagonists described as high (vs. low) in warmth were perceived as more likely to endorse those dependent measures that operate in support of women's interests (e.g., showing public support for gender equality) and less likely to endorse those dependent measures that operate against the interests of women (e.g., blaming rape victims; see Table 8 and 9 for full Warmth x Protagonist Gender interaction statistics). Crucially, and as expected, protagonists described as high (vs. low) warmth were perceived as higher in BS, and lower in HS, and this pattern was observed for both male and female protagonists, although it was more pronounced for male protagonists.

To test the prediction that the warmth manipulation will alter correlations between perceptions of BS and the dependent variables, I conducted bivariate correlations among all of the study variables (see Tables 10 and 11). Consistent with predictions, the pattern of zero-order correlations across conditions revealed positive associations between BS and those

variables that would serve women's interests. As well as negative associations between BS and those variables that would operate against women's interests (including HS). Then I adjusted for the warmth manipulation (-1 = low warmth, 1 = high warmth) and observed an attenuation of these correlations among many of the group-level variables (e.g., blaming rape victims, justification of domestic violence), relational variables (e.g., preference for men to take the initiative in dating), and intrapersonal variables (e.g., psychological entitlement). These attenuated correlations indicate that perceived warmth causally contributed to the misunderstanding of such relations, especially for male protagonists. In fact, these attenuated associations did not emerge when adjusting for perceived warmth in the female protagonist conditions.

Table 8.

Study 6 Means, Standard Deviations, Main Effects of Perceived Warmth and Interaction Effects between Perceived Warmth and Protagonist Gender for each of the Group Level Dependent Variables.

	Dependent Variables	Male Protagonist		Female Protagonist		Main Effect Warmth			Warmth x Protagonist gender		
		Lo warmth *M*(*SD*)	Hi warmth *M*(*SD*)	Lo warmth *M*(*SD*)	Hi warmth *M*(*SD*)	*F*(1, 209)	*p*	η^2_p	*F*(1,209)	*p*	η^2_p
Group level	Benevolent sexism	$2.30_a(1.32)$	$4.87_b(1.71)$	$3.46_a(1.50)$	$3.76_a(1.70)$	58.15	.001	.22	115.44	.001	.36
	Hostile sexism	$6.78_a(1.09)$	$2.89_b(1.49)$	$5.97_a(1.19)$	$2.29_b(1.25)$	633.12	.001	.75	01.29	.257	.01
	Public Support Equality	$1.64_a(1.26)$	$5.04_b(1.99)$	$2.50_a(1.68)$	$6.45_b(1.64)$	353.85	.001	.63	05.27	.023	.03
	Domestic Support Equality	$2.03_a(1.28)$	$5.91_b(1.61)$			378.93	.001	.65			
	Support Elective Abortion	$2.43_a(1.63)$	$5.97_b(1.79)$	$3.53_a(1.99)$	$6.31_b(1.91)$	201.46	.001	.49	10.16	.002	.05
	Support Traumatic Abortion	$2.93_a(1.96)$	$6.40_b(1.81)$	$3.88_a(2.01)$	$6.65_b(1.88)$	182.6	.001	.47	07.30	.007	.03
	Disapprove Pub. Breastfeeding	$6.53_a(1.78)$	$2.39_b(1.50)$	$6.05_a(1.97)$	$1.86_b(1.28)$	481.7	.001	.70	00.04	.836	.00
	Gender Status Quo	$3.55_a(2.33)$	$5.29_b(1.76)$	$4.30_a(1.74)$	$4.32_a(2.04)$	16.73	.001	.07	25.70	.001	.11
	Blame Rape Victim	$6.47_a(1.77)$	$1.78_b(1.15)$	$5.50_a(2.01)$	$1.53_b(1.19)$	530.64	.001	.72	10.83	.001	.05
	Justify Domestic Violence	$5.78_a(1.94)$	$1.90_b(1.60)$	$4.58_a(1.93)$	$1.63_b(1.31)$	252.22	.001	.55	21.29	.001	.09
	Pregnant Women's Choices	$5.22_a(1.88)$	$3.81_b(2.09)$	$4.79_a(1.84)$	$3.31_b(2.09)$	39.56	.001	.16	00.08	.785	.00
	Enjoy Sexist Humour	$7.17_a(1.27)$	$3.46_b(1.97)$	$5.73_a(1.73)$	$2.60_b(1.72)$	300.56	.001	.59	08.68	.021	.03

Note. $N = 211$. Lo = Low. Hi = High. Pub. = Public. Pregnant Women's Choice = Paternalistic Restriction on Pregnant Women's choice. Standard deviations are in parentheses. Higher means indicate greater levels of that variables except where the direction of the measure is explicitly indicated. Means with different subscripts are significantly different within condition at $p < .01$.

Table 9.

Study 6 Means, Standard Deviations, Main Effects of Perceived Warmth and Interaction Effects between Perceived Warmth and Protagonist Gender for each of the Relational and Intrapersonal Dependent Variables.

Dependent Variables		Male Protagonist		Female Protagonist		Main Effect Warmth			Warmth x Protagonist gender		
		Lo warmth *M*(*SD*)	Hi warmth *M*(*SD*)	Lo warmth *M*(*SD*)	Hi warmth *M*(*SD*)	*F*(1, 209)	*p*	η^2_p	*F*(1,209)	*p*	η^2_p
Relational	Traditional(thin) Body Ideal	5.70_a(2.09)	4.01_b(1.87)	4.68_a(2.16)	3.49_b(1.91)	35.52	.001	.15	03.41	.066	.02
	Accepts Paternalism			4.61_a(1.97)	2.93_b(1.63)	45.20	.001	.18			
	Unrealistic Rel. Expectations			4.68_a(1.20)	3.90_b(1.32)	19.89	.001	.09			
	Men Initiate Dating	6.27_a(1.76)	4.17_b(1.80)	5.16_a(1.80)	2.77_b(1.73)	131.83	.001	.39	00.10	.321	.01
Intrapersonal	Life Satisfaction	2.87_a(1.79)	5.22_b(1.57)	3.02_a(1.57)	5.14_b(1.77)	126.08	.001	.38	0.94	.333	.00
	Psych Entitlement	6.32_a(1.45)	3.61_b(1.46)	5.25_a(1.55)	3.76_b(1.70)	123.11	.001	.37	46.44	.001	.18
	Self-objectification			4.60_a(1.91)	3.22_b(1.87)	27.95	.001	.12			
	Body Shame			4.50_a(1.80)	3.32_b(1.76)	23.43	.001	.10			
	Reduced Career Goals			3.64_a(1.84)	2.39_b(1.55)	28.48	.001	.12			

Note. $N = 211$. Lo = Low. Hi = High. Pub. = Public. Rel. = Relationship. Standard deviations are in parentheses. Higher means indicate greater levels of that variables except where the direction of the measure is explicitly indicated. Means with different subscripts are significantly different within condition at $p < .01$.

Table 10.

Study 6 Pearson's Product Moment Correlations for Benevolent Sexism and each of the Group-Level Dependent Variables, and Partial Correlations Removing the Variance of the Independent Variable Perceived Warmth.

		Male		Female	
		BS (zero-order)	BS (partial)	BS (zero-order)	BS (partial)
Group-level	Hostile Sexism	-.50***	.09	-.02	.11
	Public Support equality	.58***	.21**	.31***	.38***
	Domestic Support equality	.64***	.26***		
	Support Elective Abortion	.67***	.40***	.24***	.23***
	Support Traumatic Abortion	.66***	.40***	.24***	.23***
	Disapprove Public Breastfeeding	-.55***	-.10	-.10	-.04
	Gender Status Quo	.41***	.22***	.09	.09
	Blame Rape Victim	-.60***	-.13	-.08	-.02
	Justify Domestic Violence	-.49***	-.03	-.12	-.08
	Pregnant Women's Choices	-0.12	.14†	.21**	.26***
	Enjoy Sexist Humour	-.44***	.08	-.04	.03

Note. $N = 211$. Where the direction of the measure is not explicitly indicated, assume a positive direction (e.g. Gender Status Quo = endorses the gender status quo). **$p < .01$. ***$p < .001$. †$p = .047$.

Table 11.

Study 6 Pearson's Product Moment Correlations for Benevolent Sexism and each of the Relational and Intrapersonal Dependent Variables, and Partial Correlations Removing the Variance of the Independent Variable Perceived Warmth.

		Male		Female	
		BS (zero-order)	BS (partial)	BS (zero-order)	BS (partial)
Relational	Traditional(thin) Body Ideal	-.10	.21**	.17**	.20**
	Accepts Paternalism			.22***	.29***
	Unrealistic Rel. Expectations			.46***	.52***
	Men Initiate Dating	-.17**	.24***	.24***	.36***
Intrapersonal	Life Satisfaction	.63***	.42***	.32***	.33***
	Psych Entitlement	-.33***	.20**	.39***	.46***
	Self-objectification			.26***	.31***
	Body Shame			.11	.15**
	Reduced Career Goals			.18**	.23***

Note. $N = 211$. Rel. = Relationship. Where the direction of the measure is not explicitly indicated, assume a positive direction (e.g. Body Shame = greater body shame). $^{**}p < .01$. $^{***}p < .001$.

Discussion

In Study 6, the manipulation of perceived warmth affected perceptions of the male protagonist's levels of sexism in opposing directions. Across warmth conditions, perceptions of BS and HS were negatively correlated, whereas this correlation was null when perceived warmth was adjusted for. In contrast, for female protagonists, HS was lowered by the warmth manipulation, but BS was not significantly affected. The correlation between BS and HS was null for female protagonists, whether or not I adjusted for perceived warmth. This result indicates that the illusion of antagonism between BS and HS is stronger for, and may be unique to, male protagonists. Further, extending Study 5, this study indicates that the illusion can be causally attributed to the perceived warmth that is ascribed to BS for male (but not female) protagonists.

Also extending the previous studies, participants' misunderstanding of the relationship between BS and those variables that served or undermined women's interests was evident for all but two variables – acceptance of the gender status quo and life satisfaction. That is, although the research literature on benevolent sexism has demonstrated that men who report higher levels of BS are more likely to disapprove of public breastfeeding, blame rape victims, justify domestic violence, enjoy sexist humour and believe men should initiate dating, participants associated BS men with lower levels of these variables. The illusory antagonism between BS and each of these variables was strengthened by the perception that these attitudinal and behavioural displays corresponded with men who were low (vs. high) warmth toward women. In the same vein, previous research has indicated that men higher on BS are no more likely than men lower on BS to take action to support gender equality (such as sharing domestic duties equally or participating in collective action; Drury & Kaiser, 2014; Sudkämper et al., 2018), and are less likely to support abortion rights (Huang et al., 2016), Nonetheless, in this study, perceptions of BS were positively

associated with these characteristics, because they were seen to be displayed by men with warm attitudes toward women.

In contrast, although mean levels of BS differed across the warmth conditions in the expected direction for female protagonists, this difference was not significant. Since women's warmth did not affect their perceived endorsement of BS, I did not examine the hypothesis that warmth was responsible for incorrect tacit perceptions of the functions of BS for women. However, it is noteworthy that participants revealed an understanding of the functions and consequences of BS related to the relational and intrapersonal variables, including the perceived negative associations with unrealistic relationship expectations, acceptance of paternalism, self-objectification and reduced career goals (all of which were negatively affected by warmth), and the perceived positive association with life satisfaction (which was positively affected by warmth). These findings suggest that people are capable of recognising some consequences of BS – notably among women, whose personal warmth is not strongly associated with their BS in observers' minds. Further work might include a control condition (no information about warmth) and examine whether perceiving a protagonist as warm, or as cold, exerts a greater influence on their understanding of BS.

General Discussion

For the first time, studies in the present chapter experimentally demonstrated the illusion of antagonism between BS and HS. Specifically, in studies 4-5, when BS was manipulated, male protagonists were perceived as lower in HS. In each study, this effect was mediated by benevolent sexism's greater perceived warmth (relative to HS). Moreover, study 6 demonstrated for the first time the causal role of warmth in the illusion of antagonism. Attitudinal warmth toward women moved perceptions of BS and HS in opposite directions. Further this effect was attenuated when the warmth manipulation was adjusted for.

In addition, the present findings showed that the influence of warmth is important in understanding benevolent sexism's relationship not only with HS and gender equality, but with a host of other psycho-social outcomes. Specifically, Studies 5-6 provide an insight into how people understand BS more generally. The present findings suggest that people mostly misunderstand the relationship between BS and group-level variables, such as support for abortion rights and justification of domestic violence. While research evidence suggests that BS is negatively associated with support for abortion, people assumed protagonists high in BS would support a women's right to abortion. Similarly, research shows a positive relationship between BS and the justification of domestic violence, yet people misperceived a negative relationship between these. Together, these findings suggest that people do not understand BS, especially when it is espoused by men.

These findings then, are largely consistent with the false-consciousness characterisation of benevolent sexism. The false-consciousness perspective suggests that lower status groups such as women, will accept legitimising myths about gender differentiation as means of alleviating the negative effects related to the awareness of structural inequality (Marx & Engels, 2017; Jackman, 1994; Jost & Banaji, 1994). The evidence reported in this Chapter is consistent with previous research indicating that BS, and the greater warmth it elicits manifests a false-consciousness for people (Hammond & Sibley, 2011; Jost & Kay, 2005). As such people do not grasp the veridical nature of BS and its implications, such as its relation with traditional gender role ideology, opposition to abortion rights and the justification of domestic violence. Further, this effect is most pronounced for male protagonists. Notably, people seem to more accurately understand BS when it is espoused by women, at least when it comes to relational and intrapersonal outcomes.

While these findings build on the current scientific understanding of sexism, they also have important implications for efforts to reduce sexism. Namely, the warmth of BS masks

its positive association with HS, and other outcomes opposed to equality, creating the illusion that it is related to support for equality. These findings are consistent with previous assertions that BS is seen as a "profemale ideology" (p. 276, Rudman & Fetterolf, 2014), and that it can be reduced through consciousness raising about its harmful effects (cf. Becker & Swim, 2011). Such interventions might be enhanced by making women (and men) aware of the positive affective reactions which may be elicited by BS and the tendency to (erroneously) associate it with support for equality.

A clear limitation of the present studies is the somewhat general conceptualisation of warmth up to this point. As discussed in Chapter 1, theorising and empirical work suggests that warmth operates in a global way (Asch, 1946; Heider, 1958). Studies in this Chapter have largely reflected a global operationalisation of warmth. In study 4, warmth was operationalised as both warm traits and warm attitudes (toward women). In studies 5 and 6, warmth was operationalised as only warm attitudes toward women. The empirical effects held regardless of whether trait warmth, attitudinal warmth or a composite score of both were included in analyses. However, theoretically these operationalisations of warmth represent different levels of psychological distance from benevolent sexism. Trait warmth is the more distal and attitudinal warmth the more proximal predictor of BS. As such, from the present findings it still remains unclear whether information about both, or only one is really driving perceptions of the illusion of antagonism. Likewise, can psychologically distal information (trait warmth) influence perceptions of BS and its related outcomes to the same extent as more proximal information? The studies reported in Chapter 4 address these remaining questions.

Chapter 4: Unpacking the Influence of Warmth

Studies in Chapter 3 demonstrated the influence of warmth in misunderstandings of BS, including the "illusion of antagonism" with HS. Its findings were consistent with the thesis that warmth operates as a global impression, producing positive perceptions of benevolent sexist men and any object (e.g., outcomes such as a preference for inequality or intolerance of sexist humour) which is perceived to be in a unit relation with his warm attitudes (Heider, 1958; Thorndike, 1920). Consistent with this Gestalt perspective on warmth, trait and attitudinal warmth – how warm the man is as a person, and how warm he feels toward women – were hard to disentangle psychometrically and were effectively substitutable when measured as candidate mediators.

Nonetheless, trait and attitudinal warmth conceptually represent different levels of semantic and, likely, psychological distance from BS. Trait warmth as an individual dispositional characteristic refers to general characteristics of a person. It is relatively easy to reconcile the hypothesis that a person is globally warm with the hypothesis that they have cold attitudes to a specific object – whether it is a type of food, music, and ideology, or even a group of people. On the other hand, it is more difficult to reconcile the hypothesis that a person has warm attitudes to a group of people, with the hypothesis that they do not endorse subjectively warm beliefs about them – for example, they disagree that this group is worthy of reverence and protection.

Whereas Studies 4 and 5 included items referring to trait and attitudinal warmth, the critical Study 6, which demonstrated the causal role of warmth in misunderstandings of BS, employed a manipulation of attitudinal warmth only. From a theoretical and practical point of view, therefore, it is useful to examine whether its findings hold when trait warmth is manipulated. If a man is described as warm – a generally 'nice guy' – is he also seen as a

benevolent sexist, relative to a not-so-nice guy? Further, is this effect mediated by the inference that since he is a nice guy, he has warm attitudes toward women? That is, is there evidence that although trait and attitudinal warmth normally go together, hand-in-glove, is attitudinal warmth potentially the more proximal of the two components of warmth? Further, what happens when the 'default Gestalt' is broken – when a man is, for example, generally warm, or generally cold, except toward women? Is then only one of the two necessary aspects of warmth sufficient to make him seem like a traditionally benevolent sexist? These are the questions addressed by this final empirical chapter.

Trait versus attitudinal warmth

In Studies 2-6 warmth has been operationalised both as [a man's] attitudinal warmth toward women and as [his] trait warmth. Typically, people explain a behaviour by referring to the actor's underlying mental states, such as their intentions, beliefs, and desires (for simplicity here, their *attitudes*), or to their personality dispositions. Attitudes represent favourable or unfavourable responses to an object. Attitudes can be categorised as cognitive, affective or conative. Most important for the present argument are affective attitudes – defined as *feelings* toward an object, in this case women (Azjen, 2005; Bem, 1970; Eagly & Chaiken, 1993). Attitudinal warmth then can be defined as the presence (or absence) of warm and favourable attitudes toward women. High levels of attitudinal warmth are characterised by having warm feelings toward women, liking them and feeling positive toward them. In contrast, low levels of attitudinal warmth are characterised by cold feelings, disliking and feeling negative toward women.

In contrast, traits represent some intrinsic disposition, describing a response tendency rather than an evaluative judgement. For example, a tendency to respond in a kind, warm and sincere manner would represent an underlying warm disposition. Traits are related to an

individual, rather than an object. Compared to attitudes, traits are considered more static and are less likely to change with the presence of new input information (i.e. observations, verbal or non-verbal information; Azjen, 2005). Trait warmth then is defined as an individual's cooperative and prosocial tendencies. High levels of trait warmth are characterised by sincerity, trustworthiness, morality, kindness, warmth and friendliness. Conversely, low levels of trait warmth are inferred from the absence of such characteristics (i.e. being a cold, untrustworthy person; Abele & Wojciszke, 2014; Cuddy et al, 2008)

The distinction between trait and attitudinal warmth may be important when considering benevolent sexism. Benevolent sexist ideology requires that men make a sustained commitment to adore, protect and nurture women. Likewise, a willingness to make material sacrifice for the women in their lives in expected of BS men (Glick & Fiske, 1996; Glick et al., 1997). Considering the criteria incumbent on benevolent sexist men then, it is possible that merely holding positive attitudes to women (attitudinal warmth) is not sufficient to meet such qualifications. Hence, to really be considered a benevolent sexist a relevant psychological disposition (i.e. trait warmth) might also need to be inferred. Indeed, previous research demonstrates a link between acts of selflessness and inferences of trait warmth. Indeed, other-orientated behaviours, including a willingness to act in the interest of others and not the self are diagnostic of trait warmth (Abele & Wojciszke, 2007; Cislak & Wojciszke, 2008; Russell & Fiske, 2008).

Present Research

Findings from Chapters 2 and 3 present evidence in support of the influence of global warmth impressions in understanding benevolent sexism. Importantly, warmth, either trait or attitudinal and in some cases a combination of both influence perceptions of benevolent sexism. However, it remains unclear whether both types of warmth are necessary to

influence perceptions of benevolent sexism, or whether one type of warmth has primacy over the other in such perceptions. The studies in the present chapter were conducted to unpack the influence of trait and attitudinal warmth on perceptions of benevolent sexism demonstrated in previous chapters. Specifically, I wanted to investigate whether trait warmth directly and independently influences perceptions of BS, or whether this influence is indirect, via perceptions of attitudinal warmth. Note that since effects were stronger or held only for male protagonists in Studies 5 and 6, the studies in Chapter 4 focused only on male protagonists. Study 7 conceptually replicated Study 6 with a manipulation of trait warmth instead of attitudinal warmth. Perceptions of sexism and related gender attitudes were measured in addition to perceived attitudinal warmth. Finally, in Study 8 trait and attitudinal warmth were orthogonalized to examine their independent and combined effects on perceptions of benevolent sexism and its correlates.

Study 7: Manipulation of Trait Warmth

In Study 6 attitudinal warmth (i.e. the protagonist's warm attitudes toward women) was manipulated. Since trait warmth is psychologically more distant from perceptions of BS than attitudinal warmth, I wanted to test whether this effect of warmth on BS would hold for trait warmth. Further, I wanted to test whether the influence of trait warmth is only indirect through attitudinal warmth.

Both types of warmth might be important in inferences of benevolent sexism. On the one hand, benevolent sexism is decidedly about attitudes and feelings toward women. For example, items capturing the gender differentiation subcomponent of the scale reflect *attitudes about women*'s greater "moral sensibility", "purity", "culture and good taste" (Glick & Fiske, 1996). One the other, there is also an indication that BS might be about trait warmth. For example, items measuring the paternalism subcomponent reflect individual

characteristics of the benevolent sexist. He is someone who is willing to "rescue" and revere women, even if this means sacrificing his own wellbeing (Glick & Fiske, 1996). Indeed, research shows a warm and moral character is inferred from acts in the interests of others (and not the self; Cislak & Wojciszke, 2008). As such, it is possible that both types of warmth may be important in perceptions of from benevolent sexism.

However, given the greater psychological distance of trait warmth (relative to attitudinal warmth) it is possible that perceptions of BS may be only distally influenced by trait warmth, via attitudinal warmth. To test this, participants took part in a two groups between-subjects study, where the trait warmth of a male protagonist (either high or low) was manipulated. Participants then rated the protagonist's perceived levels of BS, HS, attitudinal warmth and a selection of items from Studies 5 and 6 (e.g. public and domestic support for equality).

If perceptions of BS are really about attitudinal warmth and if attitudinal warmth is not inferred strongly from trait warmth, then I would expect no effect of trait warmth. If perceptions of BS are actually about trait warmth, and not about attitudinal warmth I would expect only a significant effect of trait warmth, and no mediation effect via attitudinal warmth. If attitudinal warmth is the more proximal cause of perceived BS then I would expect a full mediation (i.e. no effect of trait warmth when attitudinal warmth is controlled for). Finally, if trait and attitudinal warmth are related but each exerts a unique influence on BS, I would expect a partial mediation (i.e. there is still an effect of trait warmth when attitudinal warmth is controlled for).

Method

Participants

Participants were 263 American Mturk workers, including 75 Women (M_{age} = 39.08, *SD* = 12.22), 139 men (M_{age} = 34.29, *SD* = 9.64), one Transgender person (Age = 32) and one prefer not to say (Age = 55). Owing to a technical problem gender and ethnicity data were not recorded for 48 participants (18.2%). Sensitivity analyses indicated that at this sample size I had the sensitivity to detect an effect size of η^2_p = .01 with 80% power and alpha of .05. Participants' ethnicity included White American (59.1%), African American (6.4%), Asian American (7.6%), Latino American (6.4%) and other ethnicities (2.3%). Participants were compensated for their time (minimum £6 per hour).

Materials and Procedure

Participants read a vignette about an American man called Matt who was described by those who know him very well as either warm "*kind, tolerant, warm, good-natured, sincere, and trustworthy*", or cold "*unkind, intolerant, cold, bad-natured, insincere, and untrustworthy*". This manipulation was adapted from Fiske et al. (2002). Next participants rated the extent to which "*each of the statements below are likely to be accurate descriptions of Matt"* followed by dependent variables (1 = *Not at all*, 8 = *Very much*). All dependent variables were presented in a random order.

Benevolent Sexism. Participants evaluated the protagonist's level of benevolent sexism on a 3-item scale (e.g., "Women have a quality of purity that few men possess", "Believes men are incomplete without women", "Believes men should cherish and protect women"; α = .80). Items were taken from the ASI (Glick & Fiske, 1996) and each item reflected one of subcomponents of BS, respectively: gender differentiation, heterosexual interdependence and paternalism.

Hostile Sexism. Likewise, participants rated the protagonist's level of hostile sexism using 3 items (e.g., "believes that most women interpret innocent remarks or acts as sexist"; α = .95).

Attitudinal Warmth. Protagonist's level of attitudinal warmth to women was measured with 3-items (e.g., "is warm toward women", "likes women", "has positive attitudes toward women"; α = .96)

Other Dependent Variables. Participants responded on the same scale to the following items: "willing to protest, sign petitions and take other actions to support equality for women" (*Public Support for Equality*; Becker & Wright, 2011), "willing to split housework equally with their wives/partners" (*Domestic Support for Equality*; Sudkämper et al., 2018), "disapproves of breastfeeding in public" (*Disapproval of Public Breastfeeding*; Acker, 2009), "would blame a woman for being raped by a man with whom she is having an extramarital affair" (*Blaming of Rape Victims*; Viki & Abrams, 2002), "Minimizes and justifies domestic violence perpetrated by men against their wives/partners" (*Justification of Domestic Violence*; Glick et al., 2002) and "Laughs at sexist jokes and doesn't find them offensive" (*Enjoyment of Sexist Humour*; Eyssel & Bohner, 2007).

Results

Effect of Trait Warmth on the Dependent Variables

To investigate the influence of the trait warmth manipulation on the dependent variables I conducted a Multivariate Analysis of Variance (MANOVA). Trait warmth (Cold = -1, Warm = 1) was entered as the independent variable and BS, HS, attitudinal warmth, public support for equality, domestic support for equality, approval of public breastfeeding, blaming of rape victims, justification of domestic violence or enjoyment of sexist humour were entered as the dependent variables. See Table 12 for means and standard deviations.

Conceptually replicating the results of Study 6, the warm (vs. cold) man was seen as higher in BS, $F(1, 261) = 81.38$, $p < .001$, $\eta^2_p = .24$ and lower in HS, $F(1, 261) = 424.80$, $p < .001$, $\eta^2_p = .62$. Likewise, effects for other variables were consistent with Study 6. The protagonist described as warm (vs. cold) was seen as greater in attitudinal warmth $F(1, 261) = 475.33$, $p < .001$, $\eta^2_p = .65$, more likely to publicly support equality $F(1, 261) = 179.42$, $p < .001$, $\eta^2_p = .41$, more likely to show domestic support for equality $F(1, 261) = 309.80$, $p < .001$, $\eta^2_p = .54$. Compared to the cold man, the warm man was also seen as less likely to disapprove of public breastfeeding, $F(1, 261) = 133.00$, $p < .001$, $\eta^2_p = .34$, to blame of rape victims $F(1, 261) = 360.44$, $p < .001$, $\eta^2_p = .58$, justify domestic violence $F(1, 261) = 246.58$, $p < .001$, $\eta^2_p = .49$ and enjoy of sexist humour $F(1, 261) = 324.15$, $p < .001$, $\eta^2_p = .55$.

Table 12.

Study 7 Means and Standard Deviations for each of the Dependent Variables by Trait Warmth Condition.

	Cold *M*(*SD*)	Warm *M*(*SD*)
Benevolent Sexism	$2.92_a(1.61)$	$4.67_b(1.52)$
Hostile Sexism	$6.41_a(1.41)$	$2.63_b(1.57)$
Attitudinal Warmth	$3.02_a(1.49)$	$6.78_b(1.30)$
Public Support Equality	$2.21_a(1.73)$	$5.19_b(1.88)$
Domestic Support Equality	$2.49_a(1.82)$	$6.30_b(1.68)$
Disapprove Public Breastfeeding	$5.65_a(2.08)$	$2.83_b(1.88)$
Blame Rape Victim	$6.05_a(1.82)$	$2.05_b(1.58)$
Justify Domestic Violence	$5.89_a(1.93)$	$2.27_b(1.80)$
Enjoy Sexist Humour	$6.66_a(1.63)$	$2.98_b(1.69)$

Note. $N = 263$. Standard deviations are in parentheses. Different subscripts indicate means are significantly different at $p < .001$.

Mediation Analyses

Next, I tested a mediation model using the Process macro (Model 4; Hayes, 2017) to examine the indirect effect of the Trait Warmth manipulation on these outcomes through

Attitudinal Warmth. Trait Warmth (Cold = -1, Warm = 1) was entered as the independent variable (X), attitudinal warmth was entered as the mediator (M), and each of the seven dependent variables was entered in a separate model (Y). Significance of the indirect path was assessed using 95% bias-corrected and accelerated confidence intervals with 10,000 bootstrap resamples. See Figure 5 for the individual *a* and *b* paths. As predicted, the protagonist's trait warmth (vs. coldness) predicted greater perceived attitudinal warmth toward women, $b = 1.88$ [1.71, 2.05]. Also, as predicted a significant indirect effect via attitudinal warmth was observed for BS, *indirect b* = 0.65 [0.39, 0.90]. Further, there was no direct effect, b = 0.22 [-0.08, 0.53]. These analyses indicate the effect of warmth on BS is mediated by the protagonist's attitudinal warmth toward women.

Other Dependent Variables.

For each of the correlates of BS, indirect effects via attitudinal warmth were observed. Via attitudinal warmth, trait warmth (compared to coldness) led the male protagonist to be perceived as: less likely to endorse HS statements, *indirect b* = -1.40 [-1.70, -1.15], more likely to publicly support equality *indirect b* = 1.23 [0.94, 1.52], more likely to show domestic support for equality *indirect b* = 1.60 [1.32, 1.89], less likely to disapprove of public breastfeeding, *indirect b* = -1.52 [-1.83, -1.22], less likely to blame rape victims *indirect b* = -1.58 [-1.85, -1.32], justify domestic violence *indirect b* = -1.55 [-1.96, -1.16], and enjoy of sexist humor, *indirect b* = -1.30 [-1.59, -1.03]. In addition, direct effects were only observed for HS $b = -0.49$ [-0.71, -0.27], domestic support for equality $b = 0.30$ [0.04, 0.57], blaming rape victims $b = -0.42$ [-0.67, -0.16] and enjoyment of sexist humor, $b = -0.54$ [-0.82, -0.26]. All other direct *bs* < 0.26, *ps* > .089. These results are consistent with the results of Study 7 demonstrating the influence of trait warmth on these outcomes. Further, they show that this influence occurs via an indirect effect of attitudinal warmth.

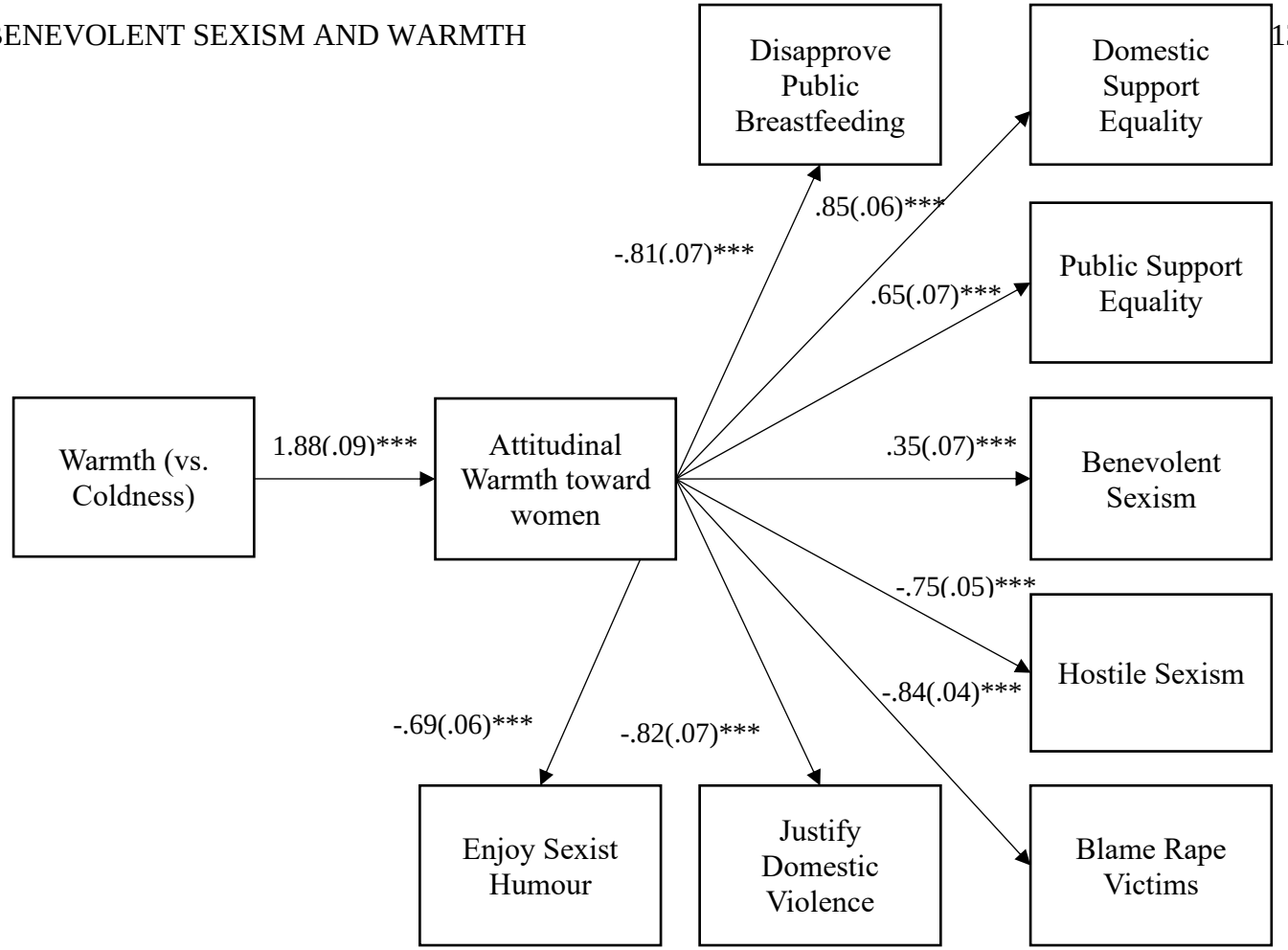

Figure 5. Mediation of the relation between Trait Warmth (Cold = -1, Warm = 1), Attitudinal Warmth toward women as proposed mediator and BS, HS, Public Support for Equality, Domestic Support for Equality, Disapproval of Breastfeeding, Blaming of Rape Victims, Justification of Domestic Violence and Enjoyment of Sexist Humour. Statistics for each path are unstandardized estimates with standard error in parentheses. ***$p < .001$.

Discussion

The present results, like Studies 4-6, demonstrate that warmth contributes to misunderstandings of BS, including the misperception that it is antagonistically related to HS and positively related to outcomes that are conducive to gender equality. It goes beyond those studies by showing that a manipulation of trait warmth is sufficient to elicit these effects. Further, the present results also indicate that the effects of trait warmth occur mostly indirectly, via attitudinal warmth. This provides some indication that although the two aspects of warmth are strongly related, attitudinal warmth may exert the more proximal, and trait warmth the more distal influence on perceptions of sexism. However, since the two aspects of warmth are so difficult to disentangle when one or both of them are measured (rather than manipulated), they were orthogonalized in the following experiment.

Study 8: Orthogonalizing Trait and Attitudinal Warmth

In this experiment I sought to examine the independent and combined causal influence of trait and attitudinal warmth on judgments of BS. To do this, I manipulated both constructs using the trait warmth manipulation of Study 7 and the attitudinal warmth manipulation of Study 6. Thus, the present study was a 2 (Trait Warmth: low, high) x 2 (Attitudinal Warmth: low, high) design. Dependent measures were the same as in Study 7. This design allowed a direct test of the influence of the different warmth operationalisations (trait versus attitudinal) on perceptions of BS. This artificial distinction breaks up the Gestalt perceptions of warmth for participants. In doing so, participants are forced to conceptualise trait and attitudinal warmth as being divorced from each other – at least in the incongruent conditions. If trait warmth exerts influence on BS and other dependent variables only distally, via attitudinal warmth, this implies that a main effect for attitudinal warmth should hold, and there would be no main effect for trait warmth, nor an interaction. In contrast, if trait warmth and attitudinal warmth each exert an independent influence, I can expect two

main effects. Finally, if trait and attitudinal warmth influence perceptions of BS in a combined multiplicative way I can expect an interaction effect.

Method

Participants

Participants were 198[15] American Mturk workers, including 75 Women (M_{age} = 37.44, *SD* = 11.48), 139 men (M_{age} = 35.65, *SD* = 12.02), and 2 Transgender people (M_{age} = 26.50, *SD* = 3.54). Sensitivity analyses indicated that at this sample size there was a sensitivity to detect an effect size of η^2_p = .01 with 80% power and alpha of .05. Participants were predominantly White American (81.3%), African American (8.1%), Asian American (5.1%), Latino American (2.5%) and other ethnicities (3.0%). All participants were compensated for their time (minimum £6 per hour).

Materials and Procedure

Participants read one of four vignettes about an American man called Matt which described a 2 (Trait Warmth: low, high) x 2 (Attitudinal Warmth: low, high) design. The manipulation of Trait Warmth was as in Study 7 and the manipulation of Attitudinal Warmth followed that of Study 6. For example, in the high Trait Warmth (warm) x low Attitudinal warmth (cold) condition participants read: "*Matt is an American man. He is regarded by those who know him very well as especially kind, tolerant, warm, good-natured, sincere, and trustworthy. Another thing about Matt is that he dislikes women and has cold feelings and*

[15] Participants answered two attention check questions about the warmth manipulations. For trait warmth, "At the beginning of the study, did you read that Matt was regarded by those who know him very well as:" (-1 = somewhat unkind, intolerant, cold, bad-natured, insincere, and untrustworthy 1 = especially kind, tolerant, warm, good-natured, natured, insincere, and trustworthy). For attitudinal warmth, "At the beginning of the study, did you read that Matt:" (-1 = dislikes women, and has cold feelings and negative attitudes toward them; 1 = likes women, and has warm feelings and positive attitudes toward them). Responses were correct if the participant chose the two options which corresponded to the descriptions they had read at the beginning of the study. Cross-tabs analysis identified *N* = 62 participants who inaccurately identified one or more categories. These people were removed from the sample, leaving a final sample of *N* = 198 that was analysed.

negative attitudes toward them". Following this, participants rated the extent to which "*each of the statements below are likely to be accurate descriptions of Matt"* followed by same dependent variables as in Study 8 (1 = *Not at all*, 8 = *Very much*). Finally, participants completed a manipulation check, provided demographics, were thanked and paid.

Dependent Variables. See Study 7 method section for details.

Manipulation Check. Participants answered two feeling thermometer questions about the warmth manipulations. For trait warmth "How warm is Matt as a person" and for attitudinal warmth "How warm are Matt's thoughts and feelings toward women?" (1 = *Extremely Cold*, 10 = *Extremely warm*).

Results

Manipulation Check

To confirm that the warmth manipulations had worked as intended two 2 (Trait Warmth: low, high) x 2 (Attitudinal Warmth: low, high) factorial ANOVAs were conducted for the trait warmth thermometer and attitudinal warmth thermometer measures. See Table 13 for means and standard deviations. For trait warmth, as expected participants who read about a male protagonist described as high (vs low) in trait warmth (e.g. *kind, tolerant, warm, good-natured, sincere, and trustworthy*) rated him as greater in trait warmth on the thermometer measure, $F(1, 194) = 182.71$, $p < .001$, $\eta^2_p = .49$. Likewise, there was significant main effect of attitudinal warmth $F(1, 194) = 112.31$, $p < .001$, $\eta^2_p = .37$. Male protagonists described as having warm (vs cold) attitudes to women were seen as greater in trait warmth. Further, this was qualified by a significant Trait x Attitudinal Warmth interaction, $F(1, 194) = 25.69$, $p < .001$, $\eta^2_p = .12$. Simple effects analyses indicated a multiplicative effect of the warmth manipulations. Protagonists described as high (vs low) in

trait warmth were seen as warmer when attitudinal warmth to women was both low, $F(1, 194) = 33.10$, $p < .001$, $\eta^2_p = .15$ and high, $F(1, 194) = 187.38$, $p < .001$, $\eta^2_p = .49$.

A similar pattern of results was observed for the attitudinal warmth thermometer. Participants who read that a protagonist had high (vs low) attitudinal warmth to women (e.g. *he likes women, and has warm feelings and positive attitudes toward them*) perceived him as greater in attitudinal warmth, $F(1, 194) = 545.49$, $p < .001$, $\eta^2_p = .74$. A significant, albeit smaller main effect of trait warmth was also present $F(1, 194) = 8.32$, $p = .004$, $\eta^2_p = .04$. Likewise, a significant Trait x Attitudinal Warmth interaction was observed $F(1, 194) = 6.12$, $p = .014$, $\eta^2_p = .03$. Simple effects showed that protagonists described as high (vs low) in attitudinal warmth were thought to have warmer attitudes to women, when trait warmth was both low $F(1, 194) = 217.43$, $p < .001$, $\eta^2_p = .53$ and high $F(1, 194) = 334.49$, $p < .001$, $\eta^2_p = .63$. Together, these results suggest that the warmth manipulations worked as intended. Although it appears that the attitudinal warmth manipulation exerted a stronger effect on ratings of trait warmth than vice-versa.

Effect of Warmth Manipulations of Benevolent Sexism

A 2 (Trait Warmth: low, high) x 2 (Attitudinal Warmth: low, high) one-way ANOVA with Benevolent Sexism as the dependent variable was conducted. Both warmth manipulations yielded significant main effects, albeit larger for attitudinal warmth $F(1, 194) = 72.75$, $p < .001$, $\eta^2_p = .27$, than for trait warmth $F(1, 194) = 8.96$, $p = .003$, $\eta^2_p = .04$. These effects were qualified by an interaction $F(1, 198) = 8.38$, $p = .004$, $\eta^2_p = .04$. Simple effects analyses showed that attitudinal warmth increased perceived BS whether the man was high ($M = 2.22$, $SD = 1.30$ vs 5.08, $SD = 1.89$), or low ($M = 2.08$, $SD = 1.58$ vs $M = 3.55$, $SD = 2.26$) in trait warmth: respectively, $F(1, 194) = 65.45$, $p < .001$, $\eta^2_p = .25$ and $F(1, 194) = 15.84$, $p < .001$, $\eta^2_p = .08$. Viewing the interaction differently, trait warmth increased BS

when the protagonist was high, but not low in attitudinal warmth: respectively, $F(1, 194) = 18.80$, $p < .001$, $\eta^2_p = .09$ and $F(1, 194) = 0.01$, $p = .946$, $\eta^2_p = .00$.

Table 13

Study 8 Means (and Standard Deviations) for all Dependent Variables by Trait Warmth and Attitudinal Warmth.

	Trait Warmth			
	Cold		Warm	
Attitudinal Warmth:	Lo (Cold) *M*(*SD*)	Hi (Warm) *M*(*SD*)	Lo (Cold) *M*(*SD*)	Hi (Warm) *M*(*SD*)
Benevolent Sexism	2.08_a(1.58)	3.55_b(2.26)	2.22_a(1.30)	5.08_c(1.90)
Hostile Sexism	7.26_a(1.00)	6.60_b(1.34)	6.87_a(1.39)	2.91_c(2.14)
Public Support Equality	1.58_a(1.40)	2.83_b(2.32)	1.98_a(1.67)	6.02_c(1.86)
Domestic Support Equality	1.76_a(1.31)	3.13_b(2.30)	2.22_a(1.70)	6.53_c(1.72)
Disapprove Public Breastfeeding	7.20_a(1.25)	6.57_a(1.50)	6.39_b(1.86)	2.78_c(2.26)
Blame Rape Victim	6.84_a(1.62)	5.89_b(1.93)	6.27_a(1.67)	2.65_c(2.27)
Justify Domestic Violence	6.66_a(1.72)	6.06_a(1.83)	5.46_b(2.05)	2.68_c(2.40)
Enjoy Sexist Humour	7.46_a(1.03)	6.79_b(1.30)	6.88_a(1.44)	3.03_c(2.25)
Trait Warmth Thermometer	1.46_a(1.89)	2.98_b(1.24)	3.78_c(2.72)	8.08_d(1.70)
Attitudinal Warmth Thermometer	1.06_a(1.75)	6.70_b(2.38)	1.17_a(3.51)	8.15_c(1.69)

Note. $N = 198$. Standard deviations are in parentheses. Different subscripts indicate means are significantly different within and between Warmth conditions at $p < .05$.

Effect of Warmth Manipulations on the Other Dependent Variables

To investigate the influence of the warmth manipulations on correlates on BS, I conducted a 2 (Trait Warmth: low, high) x 2 (Attitudinal Warmth: low, high) Multivariate Analysis of Variance (MANOVA), where Trait and Attitudinal Warmth were entered as the independent variables and HS, public support for equality, domestic support for equality, disapproval of public breastfeeding, blaming of rape victims, justification of domestic violence, or enjoyment of sexist humour were entered as the dependent variable. See Table 13 for means and standard deviations. As for BS, both manipulations yielded significant main effects on HS. Although, unlike BS, the effect for attitudinal warmth $F(1, 194) = 105.50$, $p < .001$, $\eta^2_p = .35$ and trait warmth, $F(1, 194) = 81.96$, $p < .001$, $\eta^2_p = .30$ were similar in size. These effects were qualified by an interaction $F(1, 194) = 53.58$, $p < .001$, $\eta^2_p = .22$. Simple effects analyses showed that attitudinal warmth decreased HS perceptions when trait warmth was high ($M = 6.87$, $SD = 0.25$ vs $M = 2.91$, $SD = 0.20$) and low ($M = 7.26$, $SD = 0.22$ vs $M = 6.60$, $SD = 0.23$), respectively: $F(1, 194) = 155.14$, $p < .001$, $\eta^2_p = .44$ and $F(1, 194) = 4.35$, $p = .038$, $\eta^2_p = .02$.

For outcomes in support of women's interests (i.e. support for equality) significant main effects were present for both trait and attitudinal warmth manipulations. Interaction effects were also present. For Public Support for Equality the main effect of attitudinal warmth, $F(1, 194) = 100.12$, $p < .001$, $\eta^2_p = .34$ was bigger than trait warmth $F(1, 194) = 45.91$, $p < .001$, $\eta^2_p = .19$. These main effects were qualified by a significant interaction, $F(1, 194) = 27.87$, $p < .001$, $\eta^2_p = .13$. Simple main effects analyses showed that protagonists' attitudinal warmth increased perceived support for equality when their trait warmth was both low, $F(1, 194) = 11.14$, $p < .001$, $\eta^2_p = .05$ and high $F(1, 194) = 117.13$, $p < .001$, $\eta^2_p = .38$.

Likewise, for Domestic Support for Equality attitudinal warmth yielded a bigger effect than trait warmth: respectively, $F(1, 194) = 123.01$, $p < .001$, $\eta^2_p = .39$ and $F(1, 194) = 56.93$, $p < .001$, $\eta^2_p = .23$. These effects were qualified by a significant interaction, $F(1, 194) = 33.08$, $p < .001$, $\eta^2_p = .15$. Simple effects for domestic support for equality showed that attitudinal warmth increased perceived domestic support for equality when trait warmth was low, $F(1, 194) = 14.22$, $p < .001$, $\eta^2_p = .07$ and high $F(1, 194) = 142.21$, $p < .001$, $\eta^2_p = .42$.

A similar pattern of results was found for the remaining variables in opposition to women's interests. Significant main effects of trait and attitudinal warmth were observed for disapproval of public breastfeeding: respectively $F(1, 194) = 80.52$, $p < .001$, $\eta^2_p = .29$ and $F(1, 194) = 68.14$, $p < .001$, $\eta^2_p = .26$; for blaming of rape victims: $F(1, 194) = 48.00$, $p < .001$, $\eta^2_p = .20$ and, $F(1, 194) = 68.68$, $p < .001$, $\eta^2_p = .26$; for justification of domestic violence: $F(1, 194) = 61.00$, $p < .001$, $\eta^2_p = .24$ and $F(1, 194) = 33.19$, $p < .001$, $\eta^2_p = .15$; and finally for enjoyment of sexist humour: $F(1, 194) = 86.75$, $p < .001$, $\eta^2_p = .31$ and $F(1, 194) = 94.17$, $p < .001$, $\eta^2_p = .33$. Main effects were similar in size for all variables except justification of domestic violence where trait warmth yielded a bigger effect than attitudinal warmth. These effects were all qualified by significant interactions: disapproval of public breastfeeding $F(1, 256) = 33.81$, $p < .001$, $\eta^2_p = .15$, blaming of rape victims $F(1, 194) = 23.53$, $p < .001$, $\eta^2_p = .11$, justification of domestic violence $F(1, 194) = 13.89$, $p < .001$, $\eta^2_p = .07$ and enjoyment of sexist humour $F(1, 194) = 46.43$, $p < .001$, $\eta^2_p = .19$.

Simple effects analyses showed that protagonists' attitudinal warmth decreased perceived disapproval with public breastfeeding when trait warmth was high $F(1, 194) = 99.24$, $p < .001$, $\eta^2_p = .34$, but not low $F(1, 194) = 2.97$, $p = .086$, $\eta^2_p = .02$. A similar pattern was observed for justification of domestic violence. In this

case, simple effects showed that attitudinal warmth decreased perceived justification of domestic violence but only when trait warmth was high $F(1, 194) = 45.13$, $p < .001$, $\eta^2_p = .19$, but not low $F(1, 194) = 2.06$, $p = .152$, $\eta^2_p = .01$.

Simple effects for blaming of rape victims showed that the protagonists' attitudinal warmth decreased blaming of rape victims both when trait warmth was high, $F(1, 194) = 86.53$, $p < .001$, $\eta^2_p = .31$ and low, $F(1, 194) = 5.89$, $p = .016$, $\eta^2_p = .03$. Finally, attitudinal warmth decreased perceived enjoyment of sexist humour when trait warmth was both high, $F(1, 194) = 136.79$, $p < .001$, $\eta^2_p = .41$ and low, $F(1, 194) = 4.17$, $p = .043$, $\eta^2_p = .02$, albeit this effect was stronger when trait warmth was high.

Discussion

The interaction effects observed in the present study show that it is not simply the case that trait warmth is the distal and attitudinal warmth the proximal influence on judgments of BS and other gender attitudes. Attitudinal warmth, for example, is not sufficient for judgments of BS. Rather, when orthogonalized, they combine additively and multiplicatively. The patterns of effects broadly suggest that trait and attitudinal warmth are jointly necessary for a man to be judged as high in BS. I can speculate that this might hold because BS requires men to adore, nurture, and protect women – which may be seen as difficult for a person who merely has warm and positive attitudes towards women without the grossly warm character traits required to be consistently altruistic. One final point deserves comment, which is that the main effect of attitudinal warmth was much larger than the main effect of trait warmth. This suggests that although both are necessary to promote perceptions of BS, attitudinal warmth may still be the more proximal of the two aspects of warmth.

Investigation of the patterns of simple effects across all dependent variables suggested that largely it was similar to what was found for BS. That is, attitudinal and trait warmth information work in a multiplicative way to influence perceptions of the dependent variables. For HS, as for BS it appeared that attitudinal and trait warmth were necessary to reduce perceptions of hostile sexism. In order to be perceived as low on HS, a man needs to be considered a nice-guy, who has warm attitudes to women. Similarly, in order to be perceived as supporting gender equality, either through engagement in protest or sharing domestic labour equally with a partner, men had to be both a nice guy and to have warm attitudes toward women. This pattern was replicated for some outcomes which are antagonistic to women's interests (i.e. enjoyment of sexist humour and likelihood of blaming rape victims). Interestingly, for two dependent variables – disapproval of public breastfeeding and justification of domestic violence knowing that a man has warm attitudes to women, only reduced perceptions of such when the man was also a nice guy. When he was a cold person, there was no influence of his attitudes toward women. These findings suggest that for some outcomes knowing that a man feels positively toward women cannot make-up for cold character.

A limitation of this study is the small sample size (N = 198). Participants (N = 62) were removed from the sample owing to multiple failed attention checks. As is always possible when using online crowdsourcing platforms participants may not have read the manipulations carefully enough to recall the specifics of the manipulations. In a similarly speculative fashion, it is possible that descriptions of trait and attitudinal warmth are just too close for participants to reliably recall incongruent conditions (i.e. low on trait warmth and high on attitudinal warmth or vice-versa). Examination of the patterns of incorrect responses showed lower error

rates for congruent (vs. incongruent) conditions. In fact, no errors were found in the warm-warm condition. This indicates participants found it particularly difficult to accurately recall warmth information which was not of the same valence. Future studies should seek to include boosted manipulations with behavioural observations of warmth, rather than just reading about a protagonist. It should be noted that despite this small sample size, the present study still had sufficient power to detect small effects.

General Discussion

The studies presented in this chapter show that information about trait and attitudinal warmth are both necessary for impressions of BS. In Study 7, when trait warmth was manipulated, measures of BS and attitudinal warmth increased. Further, in Study 8 when trait warmth and attitudinal warmth were orthogonalized, they combined additively and multiplicatively to inform judgments of BS. When taken together, these experiments provide some indication that attitudinal warmth exerts a more proximal influence and trait warmth a more distal influence on perceived BS. For example, in Study 7 the effect of trait warmth on BS occurred indirectly via attitudinal warmth. Further, in Study 8 the main effect of attitudinal warmth was much larger than that of trait warmth.

In addition, Studies 7 and 8 also included a selection of other variables (e.g., perceived HS, public support for equality, justification of domestic violence) and results conceptually replicated the results from Studies 4-6. In Study 7, trait warmth increased perceptions of outcomes in the interests of women, (i.e. support for equality) and decreased perceptions of outcomes which are antagonistic to women's interests (e.g. justifying domestic abuse). Attitudinal warmth also exerted a significant

indirect effect in all of these relationships. When attitudinal and trait warmth were manipulated (Study 8), both appeared to be important in perceptions of these dependent variables. Significant interaction effects for each of the dependent variables further indicated that both types of warmth work in combination. Like BS, for some variables including support for equality (public and domestic), main effects for attitudinal warmth were larger than for trait warmth – indicating that attitudinal warmth may be more proximal predictor. For all other variables, main effects were similar in size.

Together, these findings are consistent with the conceptualisation of warmth as a Gestalt which influences perceptions of benevolent sexists in a global fashion. That is, when information is gleaned about a target man's dispositional warmth or attitudinal warmth, they act in combination to influence attributions about his levels of benevolent sexism. These findings also indicate that warmth acts in global way to influence perceptions of HS and other correlates from the literature. Importantly, the pattern of results from Chapter 4 are congruous with theorising on reactions to impressions which are convergent in valence (Kelley 1973; Leddo, Abelson & Gross, 1984). When two impressions are compatible, as is the case when a target is a warm person with warm attitudes toward women, attributions will be made in a conjunctive fashion, producing the largest effects. These findings also extend previous empirical evidence showing that benevolent sexist behaviour is associated with attitudinal responses to women (i.e. lower prejudice; Barreto & Ellemers, 2005) and with trait attributions (i.e. perceived as kind, caring and compassionate; Good & Rudman, 2010).

Finally, these findings may have implications for promoting a veridical understanding of benevolent sexism and its relationship with misogyny. It appears as

though both types of warmth information are important for attributions of BS. Indeed, the pattern of means in Study 8, suggested that even removing one piece of warmth information reduced perceptions of BS. Future, studies might try to increase perceptions of BS as sexism by framing benevolent sexist men as cold. However, any such study would have to consider the possibility that perceptions of benevolent sexists' greater warmth are themselves actually based in reality (Hideg & Ferris, 2017; Kende & Shnabel, 2017; Shnabel, Bar-Anan, Kende, Bareket, & Lazar, 2016), and therefore, may be difficult to change. Likewise, these findings may also speak to further research seeking to disentangle the relationship between BS and romance. This is a point I will return to in the general discussion.

While the studies in Chapter 4 provide a coherent indication that trait and attitudinal warmth work in tandem to influence perceptions of benevolent sexism, one remaining limitation is the somewhat general operationalisation of warmth. In this chapter warmth is manipulated using traits such as "kind", "warm", "trustworthy" and "tolerant". These trait words represent both the sociability and morality components of warmth (Abele et al., 2016). In comparison, the manipulation of attitudinal warmth is focused on the favourability (or un-favourability) of a man's attitudes toward women. This manipulation is more clearly and elegantly about valence. In contrast, the influence of trait warmth on sexism might require further unpacking – specifically to delineate the influence of its sub-factors on perceptions of benevolent sexism. This is an important point of discussion, which I will examine in greater detail in the general discussion.

Chapter 5: General Discussion

Sexist ideology is ambivalent: through the filters of benevolent and hostile sexism, it casts women in a subjectively positive as well as negative light. Many studies have shown that despite its warm tone, BS is largely antagonistic to gender equality. Indeed, according to Glick and Fiske (1996), BS is antagonistic to gender equality *because* of its warm tone. In their theory, gender inequality is made palatable by the valorisation, moral concern and affection that BS conveys. Studies have provided rich and diverse support for Glick and Fiske's theory in general and its analysis of BS in particular. However, they have left an important question open: *do people recognise BS for what it is?*

This question is key to understanding the appeal of BS and its role in promoting gender inequality. On one hand, people might recognise that BS is positively associated with misogyny and other beliefs and practices that are antagonistic to gender equality. This entails that people value BS as a compensation, rather than a remedy, for gender equality. Women's appreciation of BS when displayed by men, and their conformity to its expectations, would amount to their knowing participation in an implied social contract: "we may never be equal, but we can at least enjoy some special recognition and privilege". On the other hand, people might fail to recognize the ideological associations and consequences of BS. Thus, people value BS because they see it as an antidote to misogyny and gender inequality. In this case, women's appreciation of and conformity to BS would be a manifestation of false consciousness: a failure to appreciate what is in their best interests.

This question - *do people recognise BS for what it is?* motivated the theorizing I proposed in Chapter 1. Based on Glick and Fiske's (1996) theory and several subsequent studies, I proposed that people see BS as a warm attitude toward women,

and see men (in particular) who display BS as warm toward women and warm in general. Following classic and contemporary analyses of warmth in social cognition, I proposed that this perceived warmth, in turn, would make it difficult for people to recognize BS for what it is: an ideology associated with harsh attitudes and harmful consequences for women.

Of course, this central question also motivated the studies in this thesis. In this final chapter, I will summarise their key findings. Specifically, how each study has helped to answer this central question, and how the results offer support for the proposed theoretical framework. I will then discuss the wider theoretical implications of the present results, touching on what we know and what remains to be discovered about impression formation processes, false consciousness and consciousness-raising, and beyond this, the political and intimate relationships between men and women.

Summary of key findings

Recognising and protesting benevolent sexism: the role of warmth (Chapter 2)

The aim of Chapter 2 was to investigate women's reactions to benevolent sexism and the potential influence of warmth in women's (under)reactions to it. Previous research shows that people are less likely to recognise subtle forms of sexism as prejudice (Swim et al., 2005). Based on AST (Glick & Fiske, 1996), it was reasoned that the greater warmth associated with benevolent sexism would reduce perceptions that it is discrimination. Since the first step to confronting discrimination is identifying it, I reasoned that women would also be less likely to protest benevolent sexism. In particular, I was interested in an emergent type of behavioural reaction to discrimination – protesting online via public platforms. Such platforms represent a potentially useful and effective means of protesting experiences of sexism. Namely, the public nature of such platforms means that even an individual protest of a single

experience can reach numerous other individuals – thus increasing perceptions of the prevalence of discrimination and raising public consciousness.

An initial observational study (Study 1) examined online complaints to a popular anti-sexism website. Its results indicated that the majority of these complaints referred to hostile or overtly prejudiced treatment of women, whereas only 3.2% referred to remarks and behaviours that bore the hallmarks of benevolent sexism. However, this initial investigation was limited by an inability to code for perceived warmth. Likewise, these results could have been explained by lower levels of recall, or even fewer experiences of benevolently sexist treatment. Addressing these limitations, a subsequent study (Study 2) asked women to recall how often they had experienced, and had protested sexist treatment. Crucially, it also asked women to rate how warm they had found those experiences. Its results showed that although women recalled more experiences of BS, they indicated they had protested more experiences of HS (Study 2). In addition, the greater perceptions of warmth attached to BS (compared to HS) experiences appeared to explain the perception that these beliefs were not sexist, and in turn, reduced women's inclination to protest them.

A shortcoming of this study was its lack of experimental control: recall of experiences may be subject to distortions (Hirst & Echterhoff, 2012; Koriat, Goldsmith & Pansky, 2000), and there may have been confounding differences between the experiences: experiences of HS, for example, may have occurred in more threatening or less familiar contexts. Thus, I conducted an experiment (Study 3) in which people were presented with controlled descriptions of BS and HS, and asked how likely they would be to protest these experiences. When presented with BS (versus HS), women perceived it as less sexist and were less inclined to protest it.

Furthermore, this relationship was mediated by greater perceptions of warmth attached to BS compared to HS behaviours.

Taken together, the studies in Chapter 2 suggest that warmth is a powerful factor in influencing women's understanding of and reactions to BS. These studies replicate a number of key findings in the literature. For example, research has already shown that benevolent sexists are perceived as less prejudiced than hostile sexists (cf. Barreto & Ellemers, 2005; Swim et al., 2005). Also, research has shown that women are less likely to take collective actions, such as protest, after exposure to benevolent sexism (Becker & Wright, 2011; Jost & Kay, 2005). However, the present studies extend these previous findings by linking the two lines of research. Specifically, the studies in Chapter 2 show that women do not protest benevolent sexism because they see men who enact these behaviours as warm and in turn not prejudiced.

The illusion of antagonism (Chapter 3)

In Chapter 3 the focus turned to the role of warmth in misperceptions of the "illusion of antagonism" between BS and HS. The aim of this chapter was to examine how warmth organises perception of BS, including its relationship with HS, but also with its other known correlates. These outcomes represent important social (i.e. support gender equality, blaming rape victims), relational (i.e. accepting paternalistic behavioural restrictions) and intrapersonal (i.e. greater self-objectification, greater psychological entitlement) outcomes for women and men. Importantly, the studies in Chapter 3 experimentally test, for the first time, the causal role of warmth in perceptions of antagonism between BS and HS, and likewise between BS and its other outcomes.

The first experimental study in Chapter 3 indicated that protagonists described as high in BS were seen as lower in HS (and vice-versa, Study 4). Moreover, this

illusion of antagonism was mediated by the greater perceived warmth of BS. Study 4 demonstrated this effect with male targets who enacted sexist behaviours (adapted from Becker & Swim, 2011). This study is the first to my knowledge to experimentally demonstrate the "illusion of antagonism". Likewise, Study 4 found evidence in support of warmth as a proposed mechanism underlying this illusion (at least among men). Study 5 built on this foundation to examine, for the first time, people's understanding of how BS relates to a range of attitudes and social practices. Likewise, Study 5 extended the investigation to include female sexists. Results from Study 5 showed that when people (and especially men) endorse benevolent sexism, this leads to a range of – generally incorrect – inferences about character traits, attitudes, and behaviours. In Studies 4-5, like in Studies 2-3 (Chapter 2), the perceived warmth of protagonists and their attitudes toward women were measured and appeared to mediate effects of their BS. However, this stops short of demonstrating the causal role of warmth in misunderstanding of BS and its correlates. Therefore, in Study 6 the protagonists' warmth was manipulated and their levels of sexism measured. When a protagonist was described as warm toward women, this moved perceptions of his BS and HS in opposite directions. The studies in Chapter 3 underscore the illusion of antagonism as a robust pattern that is explained by the perceived warmth of BS, and that this illusion generalizes to a range of variables associated with BS beyond HS.

Taken together, the findings of Studies 1-6 indicate that for the most part, people do not understand the functions of BS. Further, they demonstrate that misunderstandings of BS stem from its warmth. Specifically, people misperceive benevolent sexists to be less likely to endorse HS, traditional gender role attitudes and a whole host of restrictions on women's personal and political liberties (i.e. bodily

autonomy, justify domestic violence). Arguably more concerning, people erroneously perceive benevolent sexists (because of their warmth) as more likely to support the pursuit of gender equality. This effect includes believing benevolent sexists will be more likely (than non-sexists) to take action for gender equality, to share domestic duties with a partner and to support a woman's right to a termination of pregnancy (regardless of circumstance). These perceptions can be considered inaccurate, insofar as they are contradicted by the objective correlates and consequences of BS reported in the literature. In sum, the studies in Chapter 3 contribute not only to our understanding of the cause of illusion of antagonism, but also indicate the extent of people's misunderstanding of benevolent sexism.

Unpacking the influence of warmth (Chapter 4)

The aim of Chapter 4 was to examine the global influence of warmth more closely. Specifically, studies in Chapter 4 were designed to unpack the Gestalt influence of warmth on perceptions of BS. Studies in Chapters 2 and 3 operationalised warmth as either a personal trait (i.e. warm, kind, sincere), an attitude (i.e. warm, positive attitudes to women) or some combination of both. These conceptualisations of warmth reflect distinct levels of psychological distance from BS – attitudinal warmth being the more proximal and trait the more distal predictor. Study 6 shows that attitudinal warmth causally influences perceptions of BS and HS. Therefore, in Chapter 4 I wanted to test whether this effect held even with a more distal predictor of BS (i.e. trait warmth), or whether trait warmth only influences BS through the more proximal attitudinal warmth. Finally, I wanted to test the independent influence of each type of warmth information. Artificially orthogonalizing trait and attitudinal warmth allowed a test of their independent (and combined) effects on perceptions of BS.

In study 7, participants rated a man described as high (versus low) in trait warmth as higher in BS. Indirect effects analysis suggested that this effect was mediated by perceptions of attitudinal warmth (i.e. the perceived warmth of the man's attitudes to women). These findings suggested that attitudinal warmth is a more proximal predictor of BS, but it is hard to delineate the influence of each type of warmth unless both are manipulated. Therefore, in the final study, Study 8, trait and attitudinal warmth were manipulated to test their unique and combined effects directly. Analyses revealed two main effects of trait and attitudinal warmth: in both cases men higher in warmth (either trait or attitudinal) were seen as higher in BS. There was a significant interaction effect, whereby trait warmth influenced ratings of BS when attitudinal warmth was high, but not low. Importantly the findings of Study 8 suggest that the trait and attitudinal components of warmth had the largest effect on perceptions of BS when they were in synchrony – producing both additive and multiplicative effects.

Taken together with Study 6 in particular, the experiments in this chapter show that trait or attitudinal warmth are substitutable in the sense that either of them is enough to trigger inferences about men's levels of benevolent sexism. Further, Studies 5-8 show that when one of BS, trait warmth, or attitudinal warmth are manipulated, measures of the other two are increased. This is consistent with the Gestalt model of warmth that I have proposed, in that trait and attitudinal warmth are normally perceived to go together, hand-in-glove. When one is present, the other is normally inferred, and taken as a sign that a man will be benevolently sexist. Although they are normally seen as intimately related, as if they comprised a Gestalt, Study 7 shows that one component of this Gestalt (attitudinal warmth) is tacitly viewed as a more proximal influence on BS than the other (trait warmth). Study 8

shows that when the default Gestalt, hand-in-glove combination of attitudinal and trait warmth is disrupted, their influence is weakened. This is especially true of trait warmth (the more distal "hand") which exerts an influence only when the more proximal component, attitudinal warmth (the more proximal "glove") is apparent. These findings are coherent with theorising suggesting that when two impressions are in a consistent Gestalt (e.g., they have the same valence) they combine additively to produce the largest effects (Leddo, Abelson & Gross, 1984; Roese & Morris, 1999).

Theoretical Implications

The present results make it clear that warmth plays a causal role in people's understanding of, and reactions to BS. These findings have important theoretical implications for our understanding of BS and more broadly for the pursuit of gender equality. One important contribution is to theory and research on warmth in impression formation. More specifically, the present findings provide strong evidence for the global influence of warmth in impression formation, and in turn, on socio-political processes. I will discuss the questions about warmth that are answered and that are raised by the present findings. I will then discuss contributions of the present findings to research in social and political psychology on false consciousness. I will then discuss their implications for intimate, and then for wider political processes. A penultimate point of discussion considers other possible processes influencing people's understanding of BS. Finally I will discuss the limitations of the present research. Throughout I will consider directions for future research and outline some research in progress.

The influence and structure of warmth.

The present findings are consistent with previous research and theory on the centrality of warmth in intimate social relations and as a powerful organizing

construct in social cognition (Abele & Bruckmüller, 2011). As shown in Asch's classic study, warmth leads to halo effects that shape an array of inferences about people's attitudes, motives, and behaviours. It is also intimately related to liking (Fiske, Cuddy, & Glick, 2007). As shown by Heider's studies of cognitive balance, warmth organizes an array of perceptions into a Gestalt. Thus, a person's apparent liking of an attitude object affects how much observers will like them, and vice-versa. Theoretically, Studies 2-6 were motivated by these Gestalt principles of warmth, and empirically, they provide evidence that warmth affects people's understanding of BS in a Gestalt fashion. Specifically, measurements of warmth mediated between beliefs about a protagonists' BS and their other attitudes and behaviours (Studies 2-5). These findings held whether warmth was operationalized in terms of the protagonists' traits or their attitudes toward women (studies 2-8). Indeed, when measured, these two aspects of warmth were strongly correlated or comprised one factor. These findings also held whether warmth was operationalized in terms of warmth and positivity (e.g., Study 6), liking (e.g., how much participants liked the protagonist, and how much they liked women, as in Study 2), or both - in which case items referring to liking and warmth were highly correlated and formed one factor (e.g., Study 5). Further, Chapter 4 provided direct evidence that when manipulated both trait and attitudinal warmth are important in perceptions of BS, however findings suggest that attitudinal warmth is a more proximal, and trait warmth a more distal predictor of BS.

Another important finding to emerge from the present research is that observers see warmth and BS as more tightly associated among men than women. A key finding that helps explain this effect is that BS is perceived to be associated with psychological entitlement among women (Studies 5 & 6). Presumably this is because it asserts women's right to protection, adoration, and financial sacrifice (Study 5, 6;

see also Hammond et al., 2014). Conversely, and in keeping with my theorising, BS may be seen as an altruistic ideology when displayed by men, because it asserts that men should protect and provide for women. Indeed, impression formation studies have shown that morality is a facet of warmth, in addition to sociability (Leach, Ellemers & Barreto, 2007). Morality is an individual's correctness, whereas sociability refers to their cooperative tendencies (Abele et al., 2016; Leach et al., 2007). The present studies have largely operationalised warmth as a Gestalt, containing information predominately about sociability (e.g. warm, friendly) and less so about morality (e.g. sincere, trustworthy). Future studies should disentangle the influence of sociability and morality on perceptions of benevolent sexism. Preliminary findings from a related research project, suggest that morality is associated with perceptions of BS. Specifically, earlier findings show that men high in BS are considered more moral and sociable than men low in BS (Hopkins-Doyle, Petterson & Sutton, in prep). Of course, these findings will need to be extended to an investigation of female protagonists. Likewise, a direct comparison of the strength of these meta-perceptions for male and female protagonists would be necessary to understand more fully the influence of greater warmth on perceptions of BS for male, but not female sexists

Further, research should also consider additional moderators and mediators of the association between morality and BS. Indeed, it is likely that morality information might be particularly important when making general attributions about an individual, rather than goal directed impressions (e.g. a hiring decision; Brambilla, Rusconi, Sacchi & Cherubini, 2011). Future research could test this by varying the context in which the impression is made. Perhaps perceivers use different types of warmth information (sociability vs morality) when evaluating benevolent sexists in varying

contexts. So, for example, morality information might be more important when deciding whether a benevolent sexist would be a good romantic partner, but knowing about their sociability is more important in a work or friendship context. Further, experimental evidence suggests that when a group is perceived as moral they are evaluated more positively via reduced perceptions of threat (Brambilla, Sacchi, Rusconi, Cherubini, & Yzerbyt, 2012). Together, these findings represent an interesting avenue of further investigation.

Evidence for the false consciousness account of benevolent sexism.

Notwithstanding the possible influence of morality in perceptions of BS, the present studies show that Gestalt warmth leads to wide-ranging misunderstandings of the functions of BS, which lend support to a false-consciousness perspective on women's acceptance of benevolence (Jackman, 1994; MacKinnon, 1989). The hypothesis that women accept benevolent treatment and ideology as part of a knowing bargain - that is, accepting BS while being aware of its negative consequences for gender equality - receives little support in the present studies. I will now discuss a number of ways in which the present findings contribute to research and debate regarding the influence of false consciousness on gender relations. Firstly, I will outline the contribution of the present findings to philosophical debate on the legitimacy of social systems. I will outline a specific manifestation of false consciousness: the tendency for people to see BS men as allies in the fight for gender equality. This misperception has particularly important outcomes for women's interpersonal and political outcomes, which will be discussed separately.

The presence of false consciousness suggests that gender relations do not possess the knowing consent that characterises conventionally legitimate social relations (Becker, 2010; Fine, 1992; Jost & Banaji, 1994; Mill, 1869/1970). As

discussed in Chapter 1, social relations can be considered fair if all parties within a social contract consent freely to cooperate and each have equal opportunity to benefit from cooperation (Locke, 1689/1988; Rawls, 1971/1999). According to this social contractarian perspective, there are two conditions which must be met for social relations to be just: the receiving and giving of benefits and knowing consent. Regarding the first condition, which has not been the main focus of my doctoral research, there is some evidence that BS confers certain limited benefits to women (Cross, Overall & Hammond, 2016; Overall, Sibley & Tan, 2011), but also many harmful effects (see Chapter 1 for review). Regarding the second condition, the present findings suggest that women do not knowingly consent to benevolent sexism. Rather, they generally do not recognize it as a form of sexism, and do not understand its relationship with outcomes which are antagonistic to their interests.

From a contractarian perspective, the lack of informed consent implied by the present findings normatively undermines the legitimacy of gender relations. It is not clear, however, whether people adopt something like this contractarian perspective. Further research could test this proposition directly. One way to do this would be to present participants, in a three-groups design, with either a summary of the findings in this thesis, an alternate experimental summary in which it is suggested that women have a thorough understanding of BS, or an empty control. If people implicitly follow contractarian principles, they should regard gender relations (for example, using Jost and Kay's, 2005, measure of gender system justification) as more unfair in the first condition. Together with Becker and Swim's (2011; 2012) results, this finding would suggest that raising consciousness *about lack of consciousness* might contribute to wider cultural questioning of the gender system.

The present findings also suggest that the warmth of BS contributes to false consciousness by fostering misleading perceptions about the commitment of men to gender equality. Specifically, several of the present studies show that benevolently sexist men are seen as women's allies in the pursuit of gender equality. Specifically, Studies 4-8 demonstrated that warmth leads participants to view men who endorse benevolent sexism as more likely to support feminism, take collective action for gender equality, share domestic and child care responsibilities with their partners, and hold more liberal gender role attitudes. These findings have important consequences for women's interpersonal and political outcomes, as I discuss next.

Interpersonal implications

Romantic interpersonal relationships are some of the most significant and fulfilling relationships individuals can have. However, at least for heterosexual people, they are often strongly influenced by prescriptive cultural norms that reflect benevolent sexist ideals (Rudman & Glick, 2008). Likewise, the false belief that BS men support outcomes in the interest of women suggests important implications for shaping interpersonal relationships. This next set of implications underscore the influence of BS in shaping interpersonal relationships and what the present findings can tell us about this. Specifically, how can understanding the role of warmth help to disentangle BS from romantic love? Another potential implication is related to women's preference for BS men, and the incentives – or even the pressure – that encourage BS in men.

The findings of this thesis raise an important question. How do men and women distinguish heterosexual romance and benevolent sexism? Indeed, research on sexism in romantic relationships has shown that benevolent sexism influences individuals' behaviours, including attachment styles, conflict resolution and

expectations of their partners (Cross, Overall & Hammond, 2016; Hart, Hung, Glick & Dinero, 2012; Hammond et al., 2013; Overall et al., 2011). Likewise, heterosexual interdependence is central to BS ideology and thus is central to the maintenance of the gender status quo (Glick & Fiske, 1996, 2001). Therefore, how people decide whether such behaviours are acceptable or not, or sexist or not, is a pressing problem for further research. One clue is offered by the present research findings: people may use cues to men's warmth. Benevolent behaviours, when presented by a man who seems generally warm, may be less likely to be judged as sexist than when presented by an otherwise cold man. Future research could test this possibility by exposing participants to instances of benevolent behaviour (as in Chapters 2 & 3) from men whose trait warmth is varied (as in Chapter 4). Independent knowledge that a man is warm may make his behaviour seem less sexist and may also make women less inclined to react unfavourably even when they recognise it as sexism.

Such research could also take advantage of the facets of BS that are identified in Ambivalent Sexism Theory (Glick & Fiske, 1996). Perceptions of a man's warmth may shape perceptions of whether his warm attitudes toward women are founded on patronising stereotypes (gender differentiation), whether helpful behaviours are founded on the assumption that women need male assistance (protective paternalism), and whether his loving, romantic behaviour is founded on the belief that (straight) men are fundamentally incapable of being complete if they do not revere their partners (heterosexual intimacy). On this note, although I did not formally code for these subtypes of BS in the Everyday Sexism Project (Study 1), women typically did not complain that they were too adored by their male partners. Rather, their protests focused on how they were stereotyped and belittled.

Female choice, perceived investment and benevolent sexism.

The fact that women do not complain, and often approve of adoring and protective behaviours is considered by some researchers as evidence that women actively choose benevolent sexism in their relationships. Indeed, the idea of female choice in their own subjugation is not new (see Buss, 1995). In fact, the development of greater male dominance is considered an evolved response to female selection of such traits in early human societies (Buss & Schmitt, 1993). More recently then, this line of reasoning has been resurrected to suggest that women will be more attracted to benevolent sexist men because BS signals men's willingness to invest (i.e. protect, commit to and provide for a partner; Gul & Kupfer, 2018).

Across five studies Gul and Kupfer (2018) found that women report greater attraction to men who endorse (versus reject) BS. Moreover, they reported that this effect was mediated by greater perceptions of the BS man's willingness to invest, and this is controlling for greater perceptions of being patronised by the BS man. Importantly, for the present findings they show that BS men were rated as warmer compared to non-BS men, but that perceptions of warmth did not indirectly influence perceptions of attractiveness. There are two important considerations here. The first is that that although warmth is a Gestalt, its effects on whether a man will be a good partner may be mediated by a more proximal predictor such as willingness to invest. Gul and Kupfer did not report a test of this possibility, instead only testing parallel mediations with warmth and willingness to invest. Second, a closer look at Gul and Kupfer's operationalisation of willingness to invest reveals items which relate to emotional (i.e. dependable, loyal, feeling safe) and as well as practical investment (i.e. cared for, generous). The emotional component of willingness to invest speaks to potential influence of warmth, rather than just a motivated choice by women based on

evolutionary concerns. In support of this, earlier findings from my unpublished MSc thesis show that perceptions of warmth do indirectly influence ratings of a BS man as a better and more attractive boyfriend, compared to a HS and a non-sexist man.

Furthermore, Gul and Kupfer (2018) claim that their findings provide evidence in opposition to the false consciousness perspective on BS. In their view, since men who endorse (vs. reject) BS, were rated as more likely to be "patronising", "controlling" and "dominating", participants were aware of the harmful consequences of BS. Theoretically though, BS is not about dominance – dominative interdependence is a subcomponent of HS. Further, there is limited evidence that BS is related to these behaviours. For example, in dyadic research of heterosexual couples, men's BS is unrelated to the use of aggressive communication (Cross, Overall, Hammond & Fletcher, 2017) and positively associated with openness to their partner's influence (Overall et al., 2011). In respect of "patronizing", there is evidence that women (especially those high in BS) are likely to accept patronizing advice (Moya et al., 2007). However, there is less evidence that BS men give such advice. One notable exception is a study showing that BS men are more likely to offer or actually give women dependency orientated helping (i.e. doing something for them, rather than showing them how to do it themselves; Shnabel et al., 2015). But this help was not explicitly patronising and in most cases was solicited. As such, the plausibility of their hypothesis regarding these behaviours can be questioned. Indeed, it is more likely that "dominating" and "controlling" behaviours are related to HS (or at a stretch BS, but only insofar as it is confounded with HS). Their assertion of a relationship between BS and patronizing is more plausible, although not well supported by available research evidence.

In comparison, the present findings offer a more robust test of the false consciousness hypothesis by actually testing people's meta-perceptions of the relationship between BS and its *known* outcomes (Studies 6-8). These outcomes were derived from an extensive review of the literature and represent theoretically sound and empirically founded dependent variables. Across four studies, it is consistently found that people mistakenly assume a positive relationship between BS and outcomes in the interest of women (e.g. support for equality, reproductive autonomy). Likewise, these studies consistently show that BS is also erroneously perceived to be negatively related to outcomes which are antagonistic to women's interests, including those that could be categorised as domineering (domestic violence, blaming rape victims), controlling (restricting pregnant women's choices) and patronising (paternalistic restrictions on behaviour).

Theoretical criticism aside, there is also limited evidence that the effect of BS on perceptions of patronising can be replicated. Indeed, preliminary findings from a conceptual replication (N = 250) of Gul and Kupfer (2018) found no difference (p = .742) between ratings of being patronising between a target that endorsed (M = 4.35, SD = 1.77) versus rejected BS (M = 4.42, SD = 1.51; Hopkins-Doyle, Petterson & Sutton, in prep). Further, this finding is actually consistent with findings from one of Gul and Kupfer's studies (see Study 2b). In Study 2b, they failed to replicate the effect of BS on perceptions of patronising. Finding instead that the mean patronising rating for the non-BS man was equivalent to that of the BS man. Importantly, Study 2b was the only study which included an amended manipulation of the low BS man to make him appear more egalitarian. As such the effect of BS on perceptions of patronising did not hold when they changed their manipulation (even slightly). This would suggest that the reported effect may be due to the relevant comparison group

against which a BS man is evaluated, and not the actual benevolent sexist behaviour. Further research will need to examine more closely the content of non-sexist (or egalitarian) manipulations. Indeed, future investigations would benefit from explicit pre-testing of any such manipulations. In sum, despite research findings suggesting otherwise, the findings of this thesis provide more compelling evidence to suggest that women do not understand BS and its potentially undermining consequences.

Men's enactment of benevolent sexism

A related question refers to what motivates men to enact BS. Indeed, the results of the present thesis suggest that women recall experiencing BS more frequently than other types of sexism (study 2). Likewise, the present findings suggest that high (vs low) BS men experience more favourable ratings of their attitudes, attributes and behaviours. What is unclear is whether all men who engage in BS behaviour are acting out their underlying ideology, or whether as other researchers have suggested engagement in BS is a motivated response to guarantee greater success in romantic relationships (Bohner et al., 2010; Gul & Kupfer, 2018). Related to this is the idea that men's engagement in BS might reflect a wider impression management strategy which aligns with heterosexual dating scripts (Eaton & Rose, 2011; 2012).

A preliminary test of this reasoning comes from an ongoing line of research (Leach & Hopkins-Doyle, in prep). Men were exposed to a woman's dating app profile and asked to imagine being on a first date with this woman. Depending on the condition, the woman described herself as a feminist (i.e. anti-sexist) or not. Participants were asked to rate how likely they would be to engage in BS chivalrous behaviours (e.g. pay for the meal, walk the woman home). They also rated their date's

perceived approval of engaging (or not) in the behaviours. Results suggests that men believed non-feminist women would approve of BS behaviours more compared to feminist women. However, no differences were found between feminists' and non-feminists' perceived approval of *not* engaging in the behaviours. Likewise, men reported that they were no more likely to engage to BS behaviours when on a date with a non-feminist relative to a feminist (even when controlling for participants' BS). These findings indicate that while men might be aware that egalitarian women will be less approving of BS behaviour, the perceived social cost of not engaging in the behaviour is the same regardless of their date's egalitarian ideals.

Notably though, the manipulation did not influence self-reported likelihood of engaging in BS. Further research will need to investigate whether this effect is explained by the relatively weak manipulation of egalitarianism ("I am a feminist"), and likewise whether men are merely enacting benevolent sexist dating scripts. Thus, further research should seek to disentangle whether men engage in BS as an impression management strategy or whether it is a motivated evolutionary response. Taken together with findings from this thesis, it would appear that men expect impression enhancement from enacting BS, and also that they are aware of the social costs (at least in dating scenarios) for not engaging in BS. To achieve gender equality men must change their behaviour and these findings suggest an important avenue of further research.

Political Implications.

Women's failure to recognise BS for what it is, and men's potential inclination to engage in BS to avoid social costs, represent clear barriers to gender inequality. In addition, the unique nature of gender relations as outlined in Chapter 1 - that men and

women have daily interactions characterised by intimate interdependence on one another - render BS particularly difficult to challenge (Becker, Wright, Lubensky & Zhou, 2013; Saguy, Tausch, Dovidio, & Pratto, 2009). That being said, the present findings reinforce the conclusion of other studies in that raising consciousness about BS – and specifically about the misleading potential of warmth – might be effective. They may also shed light on why women who challenge BS are evaluated negatively. These implications, however, may be specific to BS, and may not generalise to positive or paternalistic representations of other social groups. In the following paragraphs, I discuss each of these points in turn.

The present findings can help inform current investigations and discussion of how to best reduce benevolent sexism and its harmful consequences. Specifically, the current findings suggest that because people do not understand BS, consciousness-raising may assist in efforts to counteract its adverse effects on gender equality (Becker & Swim, 2011, 2012; Becker, Zawadzki & Shields, 2014). Indeed, the effects of consciousness raising have been demonstrated most directly by Becker and Swim (2012) who found that telling people about the harm rather than the prevalence of benevolent sexism led to reductions in BS. Likewise, an intervention in Argentina has found similar effects. This intervention focused on the harmful consequences of sexist and masculine ideologies, in addition to challenging gender essentialism and gendered power differences. Compared to students in a no intervention (control) group, those who received the intervention reported reduced levels of BS (see study 2; De Lemus, Navarro, Velasquez, Ryan & Megias, 2014).

Future research should thus focus on reducing misperceptions of benevolent sexism as benign for women (and men) by raising their awareness of its harmful effects. One area of particular interest for future research is on the influence of

consciousness raising amongst young people. In particular, adolescence has been identified as the inception of heterosexual interdependence between the sexes (Glick & Hilt, 2000), and therefore represents a critical point at which to intervene. Indeed, research shows that young girls find benevolent sexist boys most attractive, compared to HS, ambivalent and even non-sexist boys. Likewise, young boys find ambivalent girls most attractive (Montañés, de Lemus, Moya, Bohner, & Megías, 2013). These findings suggest that girls and boys might benefit from critical discussion of benevolent sexist prescriptions on romantic and sexual behaviour, and their related consequences.

In addition to raising consciousness, direct confrontation has been identified as the most efficacious way to reduce discrimination. Anecdotally, there is evidence that women who challenge benevolent sexism in particular are resented, and academic research on benevolent sexism is sometimes met with public scorn and defensiveness (Bloxham, 2011; Edmunds, 2015). Future research could test whether this is explained by the perceived warmth of BS: people responding negatively to overtly kind and warm behaviour generally do not fare well in impression formation tasks (Becker, Glick, Ilic & Bohner, 2011; Rosen, Mickler & Collins, 1987). Indeed, there is evidence from research on racial prejudice that people who make attributions of discrimination are considered whiny and ungrateful (Kaiser & Miller, 2001, 2003). More recent experimental evidence, found that sighted people rated a blind target as ruder and colder when they rejected patronising help, compared to hostile help (Wang, Arielle, Gwinn & Dovidio, 2015). In addition, some unpublished data I have collected is consistent with these findings. Compared to HS, women who confront BS (by protesting it online) are seen as colder, more arrogant and over-reacting. Crucially, the perceived warmth of BS mediated these relationships. Future research

should manipulate warmth (e.g., as in Chapters 3 and 4) to investigate whether the warmth of BS is the causal mechanism underlying such backlash to women who protest BS.

It is also worth considering whether the present findings would hold for subjectively positive but patronizing views of other social groups. Several disadvantaged groups, including Black people and older adults, are the objects of ambivalent or complementary stereotyping (Cuddy & Fiske, 2004; Katz & Hass, 1988; Maldon et al., 2001; North & Fiske, 2013). For various reasons, I do not think that the present findings will necessarily generalise to such groups. Studies have shown that people disapprove of positive stereotypical remarks about social groups, including the elderly (Balsis & Carpenter, 2005; Hummert & Mazloff, 2001) and the mentally ill (Douglas & Sutton, 2011). Gender stereotypes, and positive gender stereotypes in particular, appear to be more normatively acceptable than for other kinds of groups (Czopp, Kay & Cheryan, 2015; Eagly & Mladnic, 1994). Most likely, this is because gender relations are fundamentally different from other intergroup relationships. The frequency and closeness of contact between the two groups, and their intimate interdependence, renders gender relations a distinct intergroup context (Glick & Fiske, 1996; 2011).

Other possible processes in understanding Benevolent Sexism: Implicit learning and social sampling.

The preceding discussion has focused on the role of warmth in misperceptions of BS, showing that people grossly misapprehend BS, at least among men, as negatively related to HS and a myriad of harsh attitudes and harmful outcomes. On the other hand, there is evidence that people understand some functions of BS among women – for example the positive association between BS and psychological

entitlement. In particular, the apparent failure to understand BS among men, but not women indicates that perhaps other processes are working in opposition to the influence of warmth. I turn my focus now to discussing other potential cognitive and perceptual processes that might be influencing people's understanding of BS, and in particular its relationship with HS.

According to the grain-of-truth or stereotype-accuracy hypothesis, beliefs about group members are informed by normatively appropriate inferences from available data; that is, sensitivity to objective regularities in the social environment (Campbell, 1967; Jussim, Cain, Crawford, Harber, & Cohen, 2009). One hint that this mechanism may be important is that in fact, BS and HS are more strongly correlated among women than men - and of course this correlation is positive (e.g., Glick et al., 2000; Sibley, Overall & Duckitt, 2007; Sibley & Perry, 2010; Sibley, Wilson & Duckitt, 2007). Implicit learning of the stronger positive association between benevolent and hostile attitudes and behaviours may have counteracted the effect of warmth - that is, the tendency to infer that BS and HS are negatively related. Specifically, the stronger BS-HS correlation among women is less likely to have been counteracted by the effect of perceived warmth. In contrast, the relatively weaker BS-HS correlation among men is not strong enough to counteract the effects of warmth.

One way in which these associations between HS and BS could be learned is through social sampling processes. Specifically, when people are asked to make inferences about an unknown population parameter, they will draw on a sample of people know to them – their social circles – to make such as estimate (Dawtry, Sutton & Sibley, 2015; Galesic, Olsson & Rieskamp, 2012). As such, if there is a positive BS-HS correlation amongst men you will infer a positive correlation in the population at large. In this way, population estimates are biased by the sample from which they

are drawn. One way to test this assertion is through an experimental study using an implicit learning paradigm. For example, participants could be presented with different contingencies between HS and BS – either positive or negative over a number of trails. If the perceived BS-HS association changes as a consequence of such exposure this would indicate that the conceptual confusion about the BS-HS relationship (caused by warmth) is counteracted by learned associations.

Likewise, implicit learning processes may be influential in people's wider understanding of BS. A notable finding from the present studies suggests that people understand some of the functions of BS, at least among women. For example, its relation with appearance concern, entitlement and deference to protective spouses (Studies 5 and 6). Further studies could test this by manipulating the associations between BS and each of these outcomes.

Limitations and future directions.

A clear limitation present amongst the experimental studies in this thesis is the use of explicit and limited information in the impression formation paradigms. I do not see this as a major drawback of the current research. It is after all necessary to use a minimal design to be able to isolate and accurately measure the underlying causal mechanism. My point is that people do not blatantly espouse their core ideological beliefs, especially not those which are related to potentially contentious issues such as race, gender or sexuality. In real social interactions, the information gathered about someone's attitudes and beliefs will be gleaned from potentially ambiguous social interactions, which are often context specific (Crandall, Eshleman & O'Brien, 2002). Likewise, perceivers often have to integrate a large volume of information from the social world. For example, even in a single social interaction a perceiver may glean

information from multiple sources (e.g., verbal, non-verbal, visual). These pieces of information may vary in their valence and logical consistency. Thus, individual perceivers have to organise and synthesise a complex and often vague pattern of social information before being able to make an attribution about a target or a situation. In contrast, the present studies only represent the influence of consistency and attribution processes with a smaller number of inputs (i.e. two or three pieces of information about attitudes, behaviours or traits).

Further research should seek to gain a more complete understanding of how people interpret benevolent sexists. This could be done, for example, by varying the types, clarity and number of pieces of information. Read and Miller propose a dynamic model of social perception (Levels of Social Dynamic (IAC) model, 1998; Parallel Constraint Model of Social Perception, 1989, 1994), based on connectionist models (McClelland, 1988) to explain how people integrate and maintain consistency amongst large numbers and complex patterns of input information. Further research might use such models to examine people's understanding of benevolent sexists with more complex, and arguably realistic paradigms.

In a similar way, the current work could be extended to include more varied types of manipulations and measures. With the exception of Study 1, the current research utilises mostly survey methodology. Replication of the present effects with research designs that manipulate a male confederate's expressions of sexist attitudes or behaviours would be beneficial. Inspiration for what one of these manipulations could look like can be taken from the (small number of) benevolent sexist experiences shared on the Everyday Sexism blog (see Study 1). For example, a quite frequent example of BS that is recalled is an offer of unsolicited help justified by concerns about preventing the woman from "straining" or "harming" herself. Universities and

lab-based sciences provide a potentially amenable environment for running such a study. A male confederate and female participant could be asked to set up some equipment before the study ostensibly begins. At this point, the male confederate could either offer help and the BS justification or no help. I would expect that compared to women who experience no help, those who experience unsolicited help and a BS justification will perceive this man as warm and less likely to endorse HS.

Further, the warmth of male protagonists could also be conceptually replicated using different manipulations. For example, varying the warmth of an interpersonal interaction with a participant or through manipulation of a protagonist's appearance. Recent research has shown that warmth is inferred from faces and social role information (Imhoff et al., 2013; Oosterhof & Todorov, 2008; Todorov, 2011). Potential future research could present women with composite faces indicating warmth and ask them to rate the man's levels of sexism. Alternatively, participants could be asked to observe a man engaging in behaviour consistent with his warm social role (e.g. teacher) and to rate his levels of sexism.

Finally, an additional shortcoming of the present work is the lack of racial or cultural diversity in the samples (Simons, Shoda & Lindsay, 2016). All sample were recruited from the US and UK, and across studies have been predominantly White (range 72%-91%). In defence of the present findings, I note that the racial make-up of our samples largely reflects the reported racial compositions from census records: in the UK, 87% of the population are reported as White, and in the USA this figure is 72%. Further, recent investigations of race on personal endorsement of sexist ideology and meta-perceptions of others' sexism have found no effect of participant race (see Rudman & Fetterolf, 2014). Nonetheless, further work is needed to

establish the generality of the present findings across cultural contexts and ethnic groups.

Concluding remarks.

The remarkable groundswell of opposition to discrimination, harassment, and sexual assault in recent years seems to represent a watershed in gender relations. Indeed, the likes of #MeToo in particular has served to capture the public consciousness and has encouraged people to question the prevailing gender system. However, such efforts have focused on hostility to women, leaving benevolent sexism largely free from scrutiny. The present studies reveal that people profoundly misunderstand benevolent sexism, so much so that they seem to perceive it – in multifaceted ways – as a help, rather than a hindrance, to gender equality. The studies show that the warm affective tone of benevolent sexism is responsible for this misperception. The present findings therefore contribute to previous research on how benevolent sexism works, and on the sense (or lack thereof) that people make of it. They also contribute to warnings that warm intergroup evaluations are not necessarily an antidote to problematic intergroup relations (Becker et al., 2013; Dixon, Levine, Reicher & Durrheim, 2012). In doing so, these findings raise new questions about the normative and perceived legitimacy of gender relations, and about the dynamics of political and intimate relations between men and women. They also contribute to previous research showing that current gender relations may depend on a deficit of understanding the gender status quo. Academic research has an important role in revealing, not only to researchers but to the public, the nature of the social systems that we inhabit, and can help equip us to challenge and improve those systems.

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Appendix A

Study 1: Coding Scheme

The first author and a research assistant coded the sample of extracts. The research assistant was provided with a coding scheme (see "Original Coding Instructions" provided below) and trained to use the system prior to data coding. The coding scheme provided definitions of hostile and benevolent sexism from Glick and Fiske (1996), and examples of hostile and benevolent sexist treatment of women adapted from Becker and Swim (2011). Hostile and benevolent sexism were operationalized as dichotomous variables. Coders were instructed to read each extract and code the extract "1" if it contained sexism and "0" if it did. This scheme was repeated for each type of sexism variable. For example, where the incident clearly described hostile and not benevolent sexism, the coder would code the extract as "1" for hostile sexism and "0" for benevolent sexism. If the incident included both hostile and benevolent sexism, the coder would select "1" for both. Further, if the coder felt an entry could not be coded, it was marked as unable to code, which occurred in instances where the presence of a male voice was clear in the entry or the extract did not describe sexism.

In the first instance, interrater reliability using this coding scheme was low (all $\kappa < .65$). Discussion between coders suggested that a new *general* sexism (GS) code needed to be included to account for instances of stereotyping, and gender discrimination (e.g. being ignored, patronized or excluded) that could not be clearly identified as motivated by hostile or benevolent ideologies. Subsequently, the coding instructions were amended (see "Amended Coding Instructions" below) and the data file was re-coded by both the first author and the research assistant using the new instructions.

Original Coding Instructions (verbatim)

After reading each extract, please either categorize it as an incident of **Hostile Sexism (HS) or Benevolent Sexism (BS).** This should be done by entering a "1" in the column labelled Hostile Sexism or in the column labelled Benevolent Sexism. If you feel that the extract cannot be coded, mark a "1" in the unable to code column. There is no need to consider the content of the extract in depth – just consider whether the extract is explicitly hostile or benevolent in tone.

Hostile Sexism: is a misogynistic portrayal of women as manipulative and in competition with men. This belief suggests that women use their sexuality to control men and benefit from men financially. **Mark an extract as hostile if it feels negative, antagonistic or bad-natured in tone**

Hostile sexist behaviours include:

- aggression towards women,
- unwanted sexual attention, objectification, harassment, sexual assault
- Expressing negative beliefs about women or equality (backlash),
- Offensive comments, derogatory names, sexist jokes/comments.
- hostile stereotypes about women (e.g. women are gold diggers, take advantage of men)

Benevolent Sexism: is a positive portrayal of women as the fairer sex. Women are seen as more refined and moral than men, and their traditional roles (mother, caregiver, wife) are idealized. However, women are also seen as the weaker sex, and need to be protected by the men in their lives (e.g. husbands, fathers, brothers). **Mark an extract as benevolent if it feels positive, benign, or good-natured in tone.**

Benevolent behaviours include:

- Expressing stereotypical beliefs about women or gender (e.g. women are better carers, more delicate, modest, moral, sexually chaste)
- Expressing traditional romantic (e.g. every woman should be cherished by her man) stereotypes
- Patronizing a woman (e.g. assuming she is unable to do something, or is helpless, speaking to a male companion over her)
- Unsolicited helping of women (e.g. with bags)
- Paternalism: protecting women – insisting she does not walk home alone/walking her home

Unable to code extracts

Any extracts that do not explicitly appear hostile or benevolently sexist in nature can be marked as *unable to code*. For example, not describing an incident of sexism or are obviously a male voice

Amended Coding Instructions (verbatim)

Issues mostly arose with difficulty in coding extracts that were clear examples of gender discrimination but not necessarily hostile or benevolent sexism. As such, a new coding

category "general sexism" will be included when recoding. Below are the revised coding categories, including a definition of what we mean and examples (note for *general* sexism extracts have been taken from the data file to illustrate extracts that constitute this categorization more clearly). If an extract constitutes more than one type of sexism please mark appropriate columns.

1) **Hostile Sexism:** is a misogynistic portrayal of women as manipulative and in competition with men. This belief suggests that women use their sexuality to control men and benefit from men financially. **Code as hostile if it is resentful or contemptuous of women**

Hostile sexist behaviours include:

- aggression towards women,
- unwanted sexual attention, objectification, harassment, sexual assault, comments about appearance
- Expressing negative beliefs about women or equality (backlash),
- Offensive comments, derogatory names, sexist jokes/comments.
- hostile stereotypes about women (e.g. women are gold diggers, take advantage of men)

2) **Benevolent Sexism:** is a positive portrayal of women as the fairer sex. Women are seen as more refined and moral than men, and their traditional roles (mother, caregiver, wife) are idealized. However, women are also seen as the weaker sex, and need to be protected by the men in their lives (e.g. husbands, fathers, brothers). **Code as benevolent if it valorizes women, or is about protecting them.**

Benevolent behaviours include:

- Expressing stereotypical beliefs about women or gender (e.g. women are better carers, more delicate, modest, moral, sexually chaste)
- Expressing traditional romantic (e.g. every woman should be cherished by her man) stereotypes
- Unsolicited helping of women (e.g. with bags)
- Paternalism: protecting women – insisting she does not walk home alone/walking her home

3) **General Sexism:** include any experiences where a woman is **excluded, stereotyped, patronized, ignored** from a task, event, opportunity or discussion because of her gender. This is a general sexism code and can be **used in instances of differential gender treatment** that cannot be clearly attributed to HS or BS.

Example 1.

Studying Hotel Management at an institution in Sydney the uniform for women required business attire (skirts only, not pants), pantyhose and makeup. Anyone seen

violating this would be a given a warning. The men got away with suit pants and did not even have the requirement to wear a tie. Needless to say, I left after one semester.

This constitutes general sexism, women are differentiated from male workers, but there is no clear indication of HS or BS.

Example 2.

I work in a specialized recruitment company for a very male dominated industry and constantly get emails from our candidates that say "Dear Mr Erin". I know I have a name that can be unisex, but the assumption that I am obviously a man because I am in this industry is just annoying.

Again, this is general sexism – this is a good example of discrimination without any clear HS or BS tone.

Example 3.

Went to an Auto store to get a replacement battery for my classic car. The guy who I was asking questions talked over my head to my male friend the whole time. It was farcical. I would ask a question. He would reply, always looking above me at my friend. Even when I stepped in between the two of them, directly in front of him. Again. And again. I was shaking with anger and frustration so hard, I couldn't even articulate an objection. My friend just stood there silently, shooting me horrified looks.

Here is an example of one that was previously coded as BS – but fits the general sexism code better, as it is difficult to infer the tone, and the woman is clearly being ignored by the mechanic. Further there is no evidence of BS motivations e.g. that she is being ignored because the mechanic/male friend do not want to bother her.

4) **Unable to code extracts**

Any extracts that do not explicitly appear sexist in nature can be marked as unable to code. For example, not describing an incident of sexism or are obviously a male voice.

Appendix B

Study 2: Dependent variable Experiences of Sexism

Participants rated how often they had experienced three example interactions with men. These interactions described either benevolent or hostile sexism. Responses were recorded for three different time frames (e.g. in the "last week", "last month" and "last twelve months"), and participants rated the frequency of these interactions from never (scored as 1), 1-2 times (scored as 2), 3-4 times (scored as 3), 5-10 times (scored as 4) and more than 10 times (scored as 5). The verbatim benevolent and hostile sexist interactions are detailed below.

Benevolent Sexism

1. "Had men try to help you because of your gender (e.g. by offering to carry bags)"
2. "Heard traditional stereotypes about women (e.g. women should be cherished by men, women are better carers than men)."
3. "Had men try to protect you because of your gender (e.g. by walking you home)."

Hostile Sexism

1. "Experienced unwanted sexual attention or harassment (e.g. being ogled at or catcalled)."
2. "Heard stereotypes about women (e.g. women try to control men, women are too easily offended)."
3. "Been the target of offensive behaviour from men because of your gender (e.g. name calling or jokes)."

Appendix C

Study 2: Exploratory factor analyses for the dependent variable Warm/positive attitudes to women.

Exploratory factor analyses using maximum likelihood extraction and oblique rotation were conducted for the HS and BS conditions separately. In both cases, scree plots suggested one strong factor, with a further possible weaker factor. As such a one and two factor model were fitted to the data for comparison. For HS the single factor model had a mean item loading of .64 (range from .55 to .72), and the two-factor model had a mean item loading of .78 (range from .65 to 1.03) on the first factor, and .73 (range from .64 to .82) on the second factor. Given the high level of correlation between items (from r = .21 to .70) a single factor model was retained. Cronbach' alpha for this scale was good (α = .79). For BS, the single factor model had a mean item loading .70 (range from .56 to .85), and the two-factor model formed one unstable factor (i.e. only two items loaded on this factor) with mean item loading of .79 (range from .54 to 1.05), and a second stable factor with a mean loading of .75 (range from .66 to .86). Given the instability of the two-factor model and high level of correlation between items (from r = .23 to .78) a single factor model was retained (α = .84).

Appendix D

Study 4: Dependent Variables

Dependent variable Complementary Behaviour

Participants were asked to evaluate how likely the male protagonist was to act in six ways, using a seven-point scale, ranging from *extremely unlikely* (scored as 1) to *extremely likely* (scored as 7). Depending on which type of sexism the male protagonist was observed engaging in (i.e. Independent variable, Condition: HS, BS or a non-sexist control) participants rated the likelihood that he engaged in the other two types of behaviour (listed below). For example, Participants who read about a man who engaged in BS behaviours rated how likely he was to engage in hostile and non-sexist control behaviours. Likewise, participants who read about a man engaging in HS behaviours rated his likelihood of engaging in benevolent and non-sexist control behaviour. Finally, participants who read about a man who engaged in non-sexist behaviour rated his likelihood of engaging in both benevolent and hostile behaviours. All behaviours were adapted from Becker and Swim (2011).

Participants read: “How likely do you think it is that Mike would act in the following ways?” followed by the below dependent variables.

For the Benevolent Behaviour Condition

1. Sexually harass a woman by ogling at her and catcalling. (HS)
2. Use “bitches” and “chicks” to refer to women. (HS)
3. Express the belief that female managers are not as effective as their male counterparts. (HS)
4. Call a female colleague “ignorant” because she belongs to a different political party to him. (Non-sexist, negative)
5. Help complete a task for a female colleague who is under a lot of time pressure. (Non-sexist, positive)
6. Play tennis with his girlfriend. (Non-sexist, neutral)

For the Hostile Behaviour Condition

1. Go out of his way to hold heavy doors open for women. (BS)
2. Tell a female friend, “You’re so kind and generous – and you’re a great mom”. (BS)
3. Insist on paying for his girlfriend’s meals. (BS)
4. Call a female colleague “ignorant” because she belongs to a different political party to him. (Non-sexist, negative)
5. Help complete a task for a female colleague who is under a lot of time pressure. (Non-sexist, positive)
6. Play tennis with his girlfriend. (Non-sexist, neutral)

For the Non-sexist Control Behaviour Condition

1. Sexually harass a woman by ogling at her and catcalling. (HS)
2. Use “bitches” and “chicks” to refer to women. (HS)
3. Express the belief that female managers are not as effective as their male counterparts. (HS)
4. Go out of his way to hold heavy doors open for women. (BS)
5. Tell a female friend, “You’re so kind and generous – and you’re a great mom”. (BS)
6. Insist on paying for his girlfriend’s meals. (BS)

Dependent variable Warmth

Participants were instructed to complete 12-items to evaluate the male protagonist’s warmth as a person (items 1-7) and toward women as a group (items 8-12), using a seven-point scale ranging from *not at all* (scored as 1) to *very much* (scored as 7).

Item stem: “Mike’s behaviour suggests he:”

1. Is kind
2. Is tolerant
3. Is warm
4. Is good-natured
5. Is reliable
6. Is sincere
7. Is trustworthy
8. Is warm toward women
9. Is cold toward women

10. Likes women
11. Dislikes women
12. Distrusts women

Dependent variable Perceived Support for Equality

Participants were instructed to complete six items to assess the protagonist's perceived support for equality, using a seven-point scale ranging from *not at all* (scored as 1) to *very much* (scored as 7).

Item stem: "Mike's behaviour suggests that he:"

1. Opposes equality for women.
2. Supports equality for women.
3. Is anti-feminist.
4. Is feminist.
5. Prefers women in their traditional "place".
6. Has old-fashioned attitudes to women.

Appendix E

Study 4: Exploratory factor analyses for the dependent variable Perceived support for Equality.

Exploratory factor analysis was conducted using maximum likelihood extraction with oblique oblimin rotation. Eigenvalues for the equality scale indicated that at least one robust factor was present, accounting for 65.42% of the variance, with a smaller factor also present, accounting for 13.03% of the variance. A single and two factor model were fitted to the data. For the single factor model the mean item loading was .75 (with a range from .50 to .91). The chi-squared goodness of fit test was significant ($\chi 2(9) = 84.21$, $p = .001$), however given the high level of correlation between items (range from $r = .26$ to .81) a single factor model was retained. Cronbach' alpha for this scale was good ($\alpha = .89$).

Appendix F

Study 5: Exploratory Factor Analysis Warmth

To understand whether participants distinguish between perceived warmth toward women and personal warmth exploratory factor analyses were conducted using maximum likelihood extraction, with oblique oblimin rotation. For male protagonists, interpretation of the scree plot suggested a single or two factor model was appropriate. The first factor accounted for 79.35% of the variance, a further factor account for 9.06% (with an eigenvalue < 1). Oblique rotation suggested a single factor model was adequate. Mean item loadings for this single factor was .87 (with a range from .77 to .92). The chi-squared goodness of fit test was significant ($\chi^2(9) = 164.79$, $p < .001$), however inspection of the residuals suggested that the single factor model was satisfactory (6 residuals were present with an absolute value of 0.05 or greater). Cronbach's alpha for this scale was very good ($\alpha = .95$) and a composite score, Perceived Warmth was created for male protagonists and used in all analyses.

For female protagonists, interpretation of the scree plot suggested that two main factors were present. Two factors were extracted using oblique rotation. Factor one accounted for 69.62% of the variance and factor two accounted for a further 15.01% of the variance. The mean item loading for the first factor was .88 (with a range from .85 to .94), and .83 (with a range from .76 to .91) for the second factor. The chi-squared goodness of fit test was non-significant, $\chi^2(4) = 8.89$, $p = .064$, and inspection of the residuals suggested that the two-factor model was satisfactory (no residuals were present with an absolute value of 0.05 or greater). Cronbach's alpha for this scale was good ($\alpha = .91$), and given the high level of correlation between items (range from $r = .51$ to .81) a composite score Perceived Warmth was also created for female protagonists and used in all analyses.

Appendix G

Study 5: Preliminary correlational analyses linking warmth to each dependent variable for each protagonist

Preliminary correlational analyses (see Table 14 in this file) revealed that perceived warmth was significantly correlated with all group-level variables (positively for variables favourable to women, negatively for variables unfavourable to women), with the exception of justification of the gender status quo and endorsement of restrictions on pregnant women. Of the relational variables, acceptance of husbands' paternalism, the belief that men should take the initiative in dating, and unrealistic relationship expectations, were not correlated with warmth. Feeling entitled was not correlated with warmth for female targets but was negatively correlated with warmth for male targets. Endorsement of a traditional (thin) body ideal was negatively correlated with warmth for both targets. Among the intrapersonal and well-being variables, perceived warmth was positively correlated with life satisfaction for both targets, uncorrelated with female targets' body shame and appearance concern, and negatively associated with unambitious career goals.

Table 14.

Pearson's Product Moment Correlations for Perceived Warmth and each of the Dependent Variables for Male and Female Protagonists (Study 5).

		Perceived Warmth	
	Dependent Variables	Male Protagonists	Female Protagonists
Group level	Hostile sexism	-.44***	-.38***
	Support equality (Public)	.70***	.66***
	Support equality (Domestic)	.68***	
	Blame Rape Victim	-.60***	-.47***
	Justify Domestic Violence	-.26***	-.34***
	Enjoy Sexist Humour	-.54***	-.35***
	Oppose Public Breastfeeding	-.49***	-.48***
	Support Elective Abortion	.56***	.59***
	Support Traumatic Abortion	.68***	.64***
	Gender Status Quo	.02	.07
	Pregnant Women's Choices	-.01	-.06
Relational	Men Dating Initiative	-.07	-.11
	Traditional(thin) Body Ideal	-.27***	-.19***
	Accepts Paternalism		-.10
	Unrealistic Rel. Expectations		-.02
Intrapersonal	Life Satisfaction	.60***	.56***
	Psych Entitlement	-.45***	.11
	Self-objectification		-.12
	Body Shame		-.09
	Reduced Career Goals		-.28***

Note. $N = 283$. Rel. = Relationship. Pregnant Women's Choice = Limiting pregnant women's choices. Where the direction of the measure is not explicitly indicated, assume a positive direction (e.g. Body Shame = greater body shame). ***$p < .001$