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An Interdependence Account of Sexism and Power: Men's Hostile Sexism, Biased Perceptions of Low Power, and Relationship Aggression

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Protecting men's power is fundamental to understanding the origin, expression, and targets of hostile sexism, yet no prior theoretical or empirical work has specified how hostile sexism is related to experiences of power. In the current studies, we propose that the interdependence inherent in heterosexual relationships will lead men who more strongly endorse hostile sexism to perceive they have lower power in their relationship, and that these perceptions will be biased. We also predicted that lower perceptions of power would in turn promote aggression toward intimate partners. Across 4 studies, men who more strongly endorsed hostile sexism perceived lower power in their relationships. Comparisons across partners supported that these lower perceptions of power were biased; men who more strongly endorsed hostile sexism underestimated the power they had compared with their partners' reports of that power (Studies 1 and 2). These lower perceptions of power, in turn, predicted greater aggression toward female partners during couples' daily interactions (Study 1), observed during couples' video-recorded conflict discussions (Study 2), and reported over the last year (Studies 3 and 4). Moreover, the associations between hostile sexism, power, and aggression were specific to men perceiving lower relationship power rather than desiring greater power in their relationships (Studies 3 and 4), and they were not the result of generally being more dominant and aggressive (Studies 3 and 4), or more negative relationship evaluations from either partner (Studies 1-4). The findings demonstrate the importance of an interdependence perspective in understanding the experiences, aggressive expressions, and broader consequences associated with hostile sexism.

Keywords: hostile sexism, relationship power, relationship aggression, biased perceptions

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Despite increased efforts to combat gender inequality, women continue to confront sexism and the aggression that sexism promotes. Hostile sexism, which expresses antagonistic and aggressive views of women as unfairly contesting men's social advantages, prevails even in relatively egalitarian contexts (Brandt, 2011; Glick et al., 2000, 2004). Fears that men are losing control over social resources are central to the persistence of hostile sexism (Glick & Fiske, 1996, 2001; Glick et al., 2000). Indeed, hostile sexism essentially involves protecting men's social power from women, which manifests in supporting less qualified men over more qualified women (e.g., Ratliff, Redford, Conway, &

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Smith, 2017; also see Masser & Abrams, 2004; Rudman & Kilianski, 2000). Accordingly, the majority of prior work has investigated how hostile sexism produces aggressive attitudes and behavioral motivations toward women who challenge men's advantaged social power, such as career women and feminists (Eagly & Karau, 2002; Glick, Diebold, Bailey-Werner, & Zhu, 1997; Masser & Abrams, 2004; Sibley & Wilson, 2004).

Ambivalent Sexism Theory (AST; Glick & Fiske, 1996), and the mass of work AST has generated over the past 20 years, specifies that maintaining and protecting men's power is fundamental to understanding the origin, expression, and targets of hostile sexism. Yet, no prior research has assessed how hostile sexism shapes men's or women's experiences of power. Moreover, the primary focus on women as outgroup members who contest men's advantaged societal-level power overlooks one of the most threatening contexts that challenges power—heterosexual intimate relationships (Smith & Hofmann, 2016). In no other context are men (or women) so vulnerable or their power so constrained because they are heavily dependent on their intimate partner for fundamental needs and goals (Kelley & Thibaut, 1978; Rusbult & Van Lange, 2003). Indeed, the ubiquitous nature of intimate relationships means that close relationship contexts are where hostile sexism has the most prevalent, routine, and potentially damaging impact, including psychological and physical aggression toward intimate partners (Cross, Overall, Hammond, & Fletcher, 2017; Forbes, Adams-Curtis, & White, 2004; Hammond & Overall, 2013; Martinez-Pecino & Durán, 2016; Overall, Sibley, & Tan, 2011).

In the current research, we recognize that the interdependence inherent in intimate relationships is pivotal to understanding why the concerns about maintaining and protecting power that are central to hostile sexism promote aggression toward women. Indeed, although concerns about protecting power are integral to theoretical accounts of the effects of hostile sexism, prior theoretical or empirical work has not articulated exactly what it is about power that should account for why hostile sexism promotes aggression. We do this in the current research by outlining how the mutual dependence and influence inherent in intimate relationships constrains individuals' power. We posit that these interdependent realities will clash with concerns about losing power that are central to hostile sexism and, thus, lead men who endorse hostile sexism to perceive they lack power in their relationship. Drawing on theory and research on the associations between power and aggression, we also propose that these lower perceptions of power, in turn, will be associated with greater aggression toward intimate partners. We present four studies to test these predictions, and assess whether these proposed links arising from our interdependence perspective are independent of alternative accounts, including that these associations arise from greater desires for power.

Hostile Sexism, Perceived Power, and Aggression in Intimate Relationships

Hostile sexism characterizes relations between men and women as a contest for power, expressing that women pursue power "by getting control over men" (Ambivalent Sexism Inventory [ASI]; Glick & Fiske, 1996). Hostile sexism protects men's privileged societal status by expressing aggressive and threatening attitudes toward women who challenge men's social power, such as female leaders, professionals, and feminists (Glick & Fiske, 1996). However, hostile sexism and the aggression arising from these attitudes is particularly apparent within intimate relationships. Men who more strongly endorse hostile sexism hold more accepting attitudes toward domestic violence and are more likely to believe women are responsible for domestic abuse (Chen, Fiske, & Lee, 2009; Glick, Sakallı-Uğurlu, Ferreira, & de Souza, 2002; Sakalli, 2001; Yamawaki, Ostenson, & Brown, 2009). Men's stronger endorsement of hostile sexism is also associated with greater self-reported verbal aggression toward dating partners (Forbes et al., 2004; Martinez-Pecino & Durán, 2016). Research extending global self-report measures of aggressive attitudes and behavior has also shown that men who more strongly endorse hostile sexism behave more aggressively toward partners during couples' conflict discussions and in routine daily life (Cross et al., 2017; Hammond & Overall, 2013; Overall et al., 2011).

Researchers conducting these prior studies, and the majority of studies examining links between hostile sexism and aggression in nonintimate contexts, have assumed that concerns regarding power are why men's hostile sexism promotes aggression. Yet, no prior theoretical or empirical work has specified how or why power should underpin the hostile sexism-aggression link, or directly assessed the degree to which hostile sexism is associated with the

experience of power in intimate relationships. We do this in the current research by (a) recognizing how mutual dependence and influence in intimate relationships constrains individuals' power, (b) outlining why these interdependent realities should be particularly problematic for men who endorse hostile sexism and are concerned about protecting their power, (c) describing how these power concerns should result in men who strongly endorse hostile sexism perceiving they have lower power in their relationships, and (d) reviewing theory and research linking lower perceptions of power to greater aggression in intimate relationships.

Interdependence and Power in Intimate Relationships

Interdependence theory highlights that the source of interpersonal power, or lack thereof, is dependence (Kelley & Thibaut, 1978; Thibaut & Kelley, 1959). People possess power when they are able to control or influence another person's desired outcomes and thus when others are dependent on them. Similarly, people lack power when their needs, goals, and desired outcomes are dependent on another's actions or preferences (also see Keltner, Gruenfeld, & Anderson, 2003). A large literature has examined power within hierarchical relationships in which specific roles mean one individual possesses asymmetrical power over desired resources (e.g., boss-employee, leader-subordinate). In these contexts, people who possess power are able to act as they desire without having to accommodate others' feelings, preferences, and desires (Galinsky, Gruenfeld, & Magee, 2003; Galinsky, Magee, Inesi, & Gruenfeld, 2006). In contrast, those who are more dependent and less able to exert influence (i.e., have low power) often need to conform to the powerful others' preferences to attain desired resources.

Power dynamics are not as simple in committed intimate relationships because, even in highly satisfying and well-functioning relationships, both partners are inescapably dependent on each other. One person's ability to achieve their fundamental needs and goals is dependent on their partner's cooperation and continued investment, and vice versa (Kelley & Thibaut, 1978). Moreover, because partners' outcomes are interdependent, intimates are continually influencing each other to attain their needs and goals (Kelley et al., 2003; Rusbult & Van Lange, 2003; Simpson, Farrell, Oriña, & Rothman, 2013). This mutual dependence and influence constrains individuals' power. Although partners' dependence affords individuals power to exert influence by fulfilling or thwarting their partner's desires, individuals own dependence also means that the partner can exert and resist influence by fulfilling or thwarting their own desired outcomes (Kelley et al., 2003; Simpson et al., 2013). Thus, in committed relationships power is restricted or constrained because individuals' own dependence inevitably means that their partner can resist or counteract their influence.

Hostile Sexism and Power in Relationships

The ways in which interdependence constrains power within intimate relationships should be particularly problematic for men who endorse hostile sexism and are thus concerned about losing power to women (Glick & Fiske, 1996). Such power concerns clash with the inherent interdependence in close relationships: men are inescapably dependent on their female partners, which affords

their partner influence and constrains their own power. Indeed, the power concerns central to hostile sexism arise because men's dependence on women reduces men's power (Glick & Fiske, 1996; Hammond & Overall, 2017; Jackman, 1994). For example, men who endorse hostile sexism fear that female partners will use their dependence to control, manipulate, and exploit them (e.g., by putting men "on a tight leash", ASI; Glick & Fiske, 1996, also see Chen et al., 2009; Yakushko, 2005). These fears arise because heterosexual interdependence exacerbates beliefs that women are trying to take men's power and therefore men need to protect against losing their power to women. Accordingly, men's hostile sexism is associated with believing that losing power in relationships shames men (Chen et al., 2009), feeling more "threatened" and "provoked" when hypothetical female partners challenge their decisions (Herrera, Exposito, & Moya, 2012), and exhibiting more hostile defensiveness in response to partners' influence attempts during couples' conflict interactions (Overall et al., 2011).

These concerns about protecting against losing power to women should influence how individuals will experience and perceive power in their relationships. Despite their motive to protect power, once in a committed relationship, men who endorse hostile sexism cannot escape the realities of interdependence: mutual dependence and influence will inevitably constrain their power. Moreover, because they harbor strong concerns about losing power, men who more strongly endorse hostile sexism should more keenly feel these constraints to power and, thus, perceive they have lower power compared with men who more weakly endorse hostile sexism. Indeed, when people are orientated toward preventing losses, they are more sensitive to negative outcomes and more vigilant toward threats that risk what they are trying to protect (see Higgins & Spiegel, 2004). Similarly, men who endorse hostile sexism should be more vigilant toward preventing the loss of power and experience interdependent dynamics as having a greater power-impeding impact compared to men who do not have the same need to protect their power. Thus, men who endorse hostile sexism should perceive they have lower power in their relationships compared to men who weakly endorse hostile sexism, and these lower perceptions are likely to be biased, such that men who more strongly endorse hostile sexism underestimate the power they have in their relationships.

Indeed, there is good evidence that concerns of loss within relationships predicts negatively biased perceptions. Individuals who are anxiously attached deeply desire love, but believe that others will eventually be rejecting (Mikulincer & Shaver, 2003). The resulting vigilance toward losing acceptance produces negatively biased perceptions of their partners' love and support (e.g., Collins & Feeney, 2004). People low in self-esteem are equally preoccupied with being accepted and valued, and so underestimate their partners' regard (e.g., Murray, Holmes, & Griffin, 2000). Similarly, people who fear rejection interpret others' behavior as more rejecting than is warranted (e.g., Downey & Feldman, 1996). Finally, people with elevated depressive symptoms demonstrate a vigilance toward social loss that produces more negatively biased perceptions of their partners' commitment and behavior (Overall & Hammond, 2018; also see Allen & Badcock, 2003).

Men who endorse hostile sexism should similarly show negatively biased perceptions but do so in the domain they are most concerned about—losing power to female partners. One prior study provides evidence that hostile sexism biases perceptions in

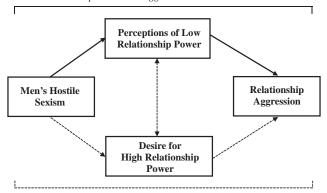
relationships. Hammond and Overall (2013) found that men who more strongly endorsed hostile sexism perceived their partners' behavior as being more negative than was justified based on their partners' reports. These biased perceptions likely arise because men who endorse hostile sexism interpret their partners' behavior in line with beliefs that women are intentionally trying to control men and so view their behavior as more oppositional than it actually is. Not only will negatively biased perceptions of partner behavior reinforce fears that partners are unjustifiably restricting power, but routine experiences of relationship dependence should similarly undermine perceptions of power more than is warranted. Thus, beyond negative interpretations of specific behaviors, repeatedly experiencing dependence and influence dynamics through the filter of power concerns should culminate into men who strongly endorse hostile sexism perceiving they generally have lower power in their relationship.

Perceptions of Low Power and Aggression Toward Intimate Partners

The proposal that men who endorse hostile sexism will perceive they possess lower relationship power is important because a large body of theoretical and empirical work suggests that lower power motivates aggressive responses to restore power (Bugental, 2010; Bugental & Lin, 2001; Overall, Hammond, McNulty, & Finkel, 2016; Worchel, Arnold, & Harrison, 1978). For example, research in nonintimate contexts supports that people will respond more aggressively when they feel they are losing power or when their power is challenged or undermined (e.g., Case & Maner, 2014; Fast & Chen, 2009; Georgesen & Harris, 1998; Maner & Mead, 2010). Similarly, people who perceive lower power in intimate relationships report greater aggression toward their partners (e.g., Babcock, Waltz, Jacobson, & Gottman, 1993; Ronfeldt, Kimerling, & Arias, 1998) and exhibit more aggressive communication behaviors during couples' actual interactions (Overall et al., 2016; Sagrestano, Heavey, & Christensen, 1999). Moreover, although intimates who perceive lower relationship power experience greater relationship dissatisfaction and insecurity (Caldwell & Peplau, 1984; Gray-Little & Burks, 1983; Sprecher, Schmeeckle, & Felmlee, 2006), lower power has been shown to be an independent and stronger predictor of aggression than these broad relationship variables (e.g., Overall et al., 2016). These prior studies, and discriminant associations, support that lower relationship power is a specific risk factor for aggression toward intimate partners.

Our interdependence account outlining why men's hostile sexism should lead to lower perceptions of power, and the established links between low power and aggression, indicate that lower perceptions of power are likely one key reason men's hostile sexism is associated with aggression toward intimate partners. These predicted associations between hostile sexism, lower perceived power, and aggression are shown in the top pathway of Figure 1. First, men who more strongly (vs. weakly) endorse hostile sexism should be more sensitive to the power restrictions that inevitably arise in relationships and thus should be more likely to perceive they have lower power in their relationship. Second, given aggression is one important way in which people may try to restore power, the lower perceptions of power we expect to be associated with men's hostile sexism should be positively associ-

Predicted Associations between Hostile Sexism, Perceptions of Relationship Power and Aggression tested in Studies 1-4



Alternative Associations between Hostile Sexism, Desire for Relationship Power and Aggression tested in Studies 3 and 4

Figure 1. The proposed associations between hostile sexism, perceptions of relationship power, and relationship aggression (top pathway) versus alternative associations between hostile sexism, desire for relationship power, and relationship aggression (bottom pathway). This figure depicts two ways in which power-related variables could help explain the link between men's hostile sexism and aggression toward intimate partners. The solid line represents our primary predictions that we tested across Studies 1–4: Men who endorse hostile sexism should perceive themselves to have lower power in their relationships, and lower perceptions of power in relationships should in turn be associated with greater relationship aggression. The dashed line represents an alternative set of associations that we examine and compare in Studies 3–4: Men who endorse hostile sexism may also desire high levels of power in their relationships, and greater desire for power may be associated with greater relationship aggression.

ated with aggression toward intimate partners. We tested these associations across four studies.¹

Alternative Associations: Hostile Sexism, Desire for Power, and Aggression

Our primary aim in the current research focused on testing the links between hostile sexism, lower perceived power and aggression (top pathway in Figure 1). However, hostile sexism and aggression may be differentially related to other power-related variables and, thus, we believed it was important to distinguish our predicted associations from a key alternative. In particular, theory and research connecting hostile sexism with an orientation toward maintaining social hierarchies and group dominance (Christopher & Mull, 2006; Christopher & Wojda, 2008) suggests that men who endorse hostile sexism desire to possess power over others. Men who more strongly endorse hostile sexism possess stronger competitive-driven motivations to achieve dominance and power in intergroup relations (e.g., Social Dominance Orientation; Lee, Pratto, & Li, 2007; Sibley, Wilson, & Duckitt, 2007) and they place greater value on power, control, and dominance (Feather, 2004). Moreover, some scholars argue that hostile sexism specifically encompasses a desire for social hierarchy where men dominate women (Christopher & Mull, 2006; Christopher & Wojda, 2008). Greater desires for social dominance are likely to apply beyond intergroup contexts to infiltrate desires for power in specific interpersonal relationships, perhaps particularly in intimate relationships given the threat interdependence poses to power. Although only one self-report study has provided evidence that men who endorse hostile sexism place greater importance on holding the dominant position in relationships (e.g., "the man should be the king in the family"; Chen et al., 2009), the power concerns associated with hostile sexism are likely to manifest in men who endorse hostile sexism expressing a greater desire for holding power in relationships.

Accordingly, greater desires for power and dominance may play a role in explaining the aggression associated with hostile sexism. Although research has shown that lower perceived power is associated with aggressive responses (e.g., Babcock et al., 1993; Overall et al., 2016; Ronfeldt et al., 1998; Sagrestano et al., 1999), there is also evidence that greater desire for power promotes relationship aggression (e.g., Dutton & Strachan, 1987; Felson & Outlaw, 2007; Whitaker, 2013). For example, men who are violent within their relationships often report that their aggression is motivated by a need to control and dominate their partner (Barnett, Lee, & Thelen, 1997; Dobash & Dobash, 1979; Dutton & Strachan, 1987; Hamberger, Lohr, Bonge, & Tolin, 1997). These types of associations are often understood to reflect that intimate partner violence arises as a means to achieve dominance or possess power (see Holtzworth-Munroe, Bates, Smutzler, & Sandin, 1997; Hotaling & Sugarman, 1986; Whitaker, 2013). Outside close relationship contexts, greater orientation to possess social power also predicts more aggressive responses when competing for power (Case & Maner, 2014; Maner & Mead, 2010). Thus, as shown in the bottom pathway of Figure 1, an alternative or additional way in which power within relationships links hostile sexism to aggression is that men who endorse hostile sexism desire to have power in their relationships and these desires produce aggression to gain power over female partners.

In two studies, we examined whether our predicted associations between hostile sexism, lower perceived power and aggression (top pathway in Figure 1) were distinct from the potential associations between hostile sexism, greater desire for power, and aggression (bottom pathway in Figure 1). This aim is important for two reasons. First, it is possible that both pathways occur, but they represent opposing processes that impede reliable detection of the link between hostile sexism and either power variable. In particular, the predicted direction of the hostile sexism and perceived power association is in the opposite direction (negative) to that between hostile sexism and desire for power (positive) so any association between the two power variables could occlude or suppress the links with hostile sexism. People who desire to hold power may be more likely to enter and stay in relationships where they possess high levels of power, in which case hostile sexism may be associated with lower perceived power because of the

¹ The prior research we have reviewed, and our theoretical model, specifies that lower perceived power predicts greater aggression. However, the links between perceived power and aggression may be reciprocal. In particular, aggression toward intimate partners can produce partner resistance (e.g., Overall et al., 2009, 2011), which in turn could lead to lower power (Overall et al., 2011, 2016). In the current studies we recognize this possibility by testing whether the associations between men's hostile sexism and perceived power are independent of individuals own and their partner's aggression (which they were across studies). Nonetheless, as we consider in the general discussion, the potential bidirectional links between perceived power and aggression may reinforce hostile sexism.

interdependence constraints described above, but also indirectly associated with greater perceptions of power via desires for high relationship power. Alternatively, people who experience lower power may place a premium on having power and thus any links with greater desires for power actually arise because they feel they are losing or have lost power. Indeed, the beliefs that men are losing power central to hostile sexism should manifest in lower perceived power as we propose and should be why men who endorse hostile sexism may feel power is important to have in relationships.

Second, modeling the potential links between these two power variables helps to determine the extent to which the aggression associated with hostile sexism is motivated from a perceived loss of power or simply to fulfill a desire to possess power regardless of the level of power experienced in the relationship. Although there is evidence that both lower perceived power and desire for power are associated with greater aggression toward intimate partners, prior research has not examined whether these are independent predictors. This is important because prior research showing that violent men report greater need to control women may be because of relational dependence undermining power and, thus, the reported need to control partners actually reflects a perceived lack of control and power. Similarly, the intergroup-based dominance motives associated with hostile sexism imply that men who endorse hostile sexism are aggressive to obtain or sustain power over women, despite the greater social power and advantages men possess. If this is the case in intimate relationships, then men's endorsement of hostile sexism, and greater desire for power, should predict greater aggression regardless of the level of power men experience in their relationship. Yet, we expect that it is the preoccupation with losing power central to men's hostile sexism that leads to feeling lower relationship power and, in turn, aggression toward intimate partners.²

Current Research

The current research represents the first investigation of how hostile sexism shapes power in heterosexual relationships, which is fundamental to the theorized origins and aggressive expression of hostile sexism. The top pathway of Figure 1 outlines our primary predictions that we tested across four studies. We posited that the interdependent realities of intimate relationships would clash with the principal beliefs and concerns inherent in hostile sexism; that men need to protect against losing power to women. In particular, men who endorse hostile sexism should be more sensitive to the power constraints that inevitably arise in relationships and, thus, should be likely to perceive they have lower power in their relationship than men who more weakly endorse hostile sexism. Second, because aggression is one key way in which people may try to restore power, these lower perceptions of power should be in turn associated with greater aggression toward intimate partners.

We tested these predicted associations between men's hostile sexism, perceived power and aggression by assessing hostile sexism, perceptions of power, and aggression toward partners during couples' daily lives as reported by both partners (Study 1), observer-rated aggressive communication exhibited during couples' video-recorded conflict interactions (Study 2), and self-reported aggression over the past year (Studies 3 and 4). In Studies 1 and 2, we also focused on establishing that the lower perceptions

of power associated with men's hostile sexism involve a negatively biased view of power in relationships. As we describe in more detail in Study 1, following standard approaches to assess bias in relationships, a primary way to test whether an individuals' perceptions of relationship power are biased is to compare those perceptions to their intimate partners' reports of the power the individual has in the relationship (Fletcher & Kerr, 2010; Gagné & Lydon, 2004). Accordingly, we gathered perceptions of both dyad members' perceptions of their own and their partner's relationship power. The dependence and challenges to influence inherent in intimate relationships may mean that people generally feel they have lower power than their partner reports them to have, but this should be particularly so for men who endorse hostile sexism and who will thus find their dependence and restricted influence in intimate relationships more threatening.³

In Studies 3 and 4, we also tested whether the predicted associations between hostile sexism, lower perceived power and aggression (top pathway in Figure 1) were distinct from any, potentially opposing, associations between hostile sexism, greater desire for power, and aggression (bottom pathway in Figure 1). To do this, we simultaneously examined the associations between hostile sexism, perceived versus desired relationship power, and self-reported aggression. These tests enabled us to examine whether the data supported that: (a) the preoccupation with losing power central to men's hostile sexism biases perceptions of low power and, in turn, prompts aggression as we predict; (b) men's hostile sexism and aggression promotes a desire to have and sustain greater power

² We acknowledge the possibility that there may be more complicated models in which desire for power could mediate the links between hostile sexism and lower power or mediate the associations between lower power and aggression. Our primary aim was to show that the links between hostile sexism, lower power, and aggression were distinct from the possibility that hostile sexism promotes aggression to possess high levels of power, despite the greater social power and advantages men already have. Our strategy to test whether the paths are distinct inevitably accounts for more complex alternative models. For example, if desires for power mediate either of the links between hostile sexism, lower perceived power, and aggression, then the direct associations we are testing will be reduced. Thus, by testing the independence of the pathways shown in Figure 1, our analyses test whether the perceived loss of power plays an important role in helping to explain the hostile sexism-relationship aggression link independent of the desire to possess power, including the relative importance of any serial mediation processes.

We predicted that the preoccupation with protecting men's power central to hostile sexism should mean men's hostile sexism is associated with perceptions of their own power irrespective of the power dynamics in the relationship, including their female partners' power. Nonetheless, we explored the possibility that men's hostile sexism was associated with men perceiving a power imbalance reflective of men perceiving they have lower power and their female partner having greater power. The associations across studies indicated that the results were specific to men's perceptions of their own power. Men's hostile sexism was not associated with perceiving partners to hold greater power (Studies 1 and 2) or partners' own perceptions of power (Studies 1–3). Moreover, controlling for perceptions of partners' power across studies revealed no differences in the primary associations across hostile sexism, perceived power, and aggression. Additional analyses also illustrated that the associations between greater hostile sexism and lower perceived power, or lower perceived power and greater aggression, were not magnified when men perceived female partners to be high in power. These additional analyses support that concerns about protecting against the loss of power to female partners (that are central to hostile sexism) result in perceiving lower relationship power regardless of the power the partner has in the relationship.

regardless of the power held in the relationship; or (c) whether both processes occur independently (also see Footnote 1).

Across studies, we also ruled out additional alternative explanations. First, we wanted to account for the possibility that the hostile sexism, perceived power and aggression links may simply be the result of more dissatisfying relationships or distrusting expectations within dependence-based relationships. In Studies 1-4, we ran additional analyses controlling for individuals and their partners' relationship satisfaction and attachment insecurity. Similarly, we wanted to rule out the possibility that men's hostile sexism creates general aggression in relationships that may feedback to undermine perceived power, and so we ran additional analyses testing the primary link between men's hostile sexism and perceived power controlling for individuals' and their partners' aggression. Finally, our focus was on how men's hostile sexism is associated with power within specific intimate relationships. However, given hostile sexism and aggression may be connected to more general orientations toward dominance, in Studies 3 and 4 we also ran additional analyses to rule out the possibility that the hostile sexism, perceived power and aggression links were because of general interpersonal dominance, desires for power over women, and propensity for violence.

Our predictions focused on men's hostile sexism, lower perceived power and aggression. Women who endorse hostile sexism also believe that women should support men's power and dominance (Chen et al., 2009; Glick & Fiske, 1996), and therefore are not concerned about competing for power, and are unlikely to feel restricted by the inevitable constraints to power that occur within relationships. We also did not expect men's benevolent sexism, a second form of sexist attitudes, to predict lower or biased perceptions of power and thus aggression. Benevolent sexism prescribes that men are dependent on the love of a woman to be happy, and that men should be chivalrous and protective partners (Glick & Fiske, 1996). Instead of harboring concerns about women's relationship power, benevolent sexism acknowledges and values heterosexual men's reliance on women for the fulfillment of relational needs (Glick & Fiske, 1996). Thus, men who endorse benevolent sexism are less concerned with their relational dependence, more open to their partners' influence (Overall et al., 2011), and thus, should not underestimate their relationship power or aggress to restore power. Accordingly, we expected the links between men's hostile sexism, lower perceived power and aggression to be specific to men's hostile, and not benevolent, sexism.

Study 1

Study 1 provided an initial test of the predicted associations shown in the top pathway of Figure 1. We first tested whether men who more strongly endorsed hostile sexism had lower perceptions of power by asking both members of heterosexual couples to complete established scales of perceived power. We expected that men's greater endorsement of hostile sexism would predict lower perceptions of relationship power. In Study 1, we also wanted to test whether these lower perceptions of power were biased. This is important because we propose that men's hostile sexism should be associated with lower perceived power because of a preoccupation and vigilance regarding losing power rather than actually possessing lower power in their relationship. Accordingly, not only should men who strongly endorse hostile sexism perceive they have lower

power compared to men who weakly endorse hostile sexism; these perceptions should be biased and underestimate the power they have in their relationships.

To assess whether perceptions of relationship power were biased we followed the majority of prior research assessing bias in relationships by using partner reports as a benchmark (see Fletcher & Kerr, 2010). In addition to gathering perceptions of individuals' own power, we also asked participants to report on their partners' level of power in the relationship. A pattern of biased perceptions would be evident if men who more strongly endorse hostile sexism perceive they have lower power, but their female partner does not agree with those perceptions (i.e., men's hostile sexism is not associated with female partners reporting that men have lower power). We also utilized the latest techniques in modeling bias to directly compare the level of power individuals perceived they had in the relationship to the level of power the partner reported they had (West & Kenny, 2011). We predicted that men who more strongly (vs. weakly) endorsed hostile sexism would underestimate their own levels of power compared with their partner's reports of that power.

Partner reports are the standard, and arguably best, benchmark to assess bias because partners have a detailed view of the ongoing dynamics within relationships that is very difficult (perhaps impossible) to assess objectively (Fletcher & Kerr, 2010; Gagné & Lydon, 2004). Nonetheless, perhaps any discrepancies across reports of power could reflect other processes, such as men who endorse hostile sexism behaving in ways that make their partners perceive they have greater power. If this alternative is the case, then men's hostile sexism will not predict their own lower perceptions of power and instead predict greater partner reports of their power (that we did not expect to be the case). In addition, common self- or relationship-serving biases could mean that all partners will tend to under- or overestimate the power that individuals have in their relationship (Fletcher & Kerr, 2010; Gagné & Lydon, 2004). Yet, the existence of other factors influencing the discrepancy between individuals' perception and partner reports would not change the meaning of any significant associations between hostile sexism and level of bias. That is, these other factors should equally apply to men's and women's perceptions and reports of power, and do so irrespective of levels of hostile sexism. Thus, if levels of bias significantly differ across men's (and not women's) endorsement of hostile sexism at the same level of power reported by the partner, then this will demonstrate that men who more strongly (vs. weakly) endorse hostile sexism are perceiving lower power in the context of the same interdependent realities.

After establishing the links between hostile sexism and lower power, we then tested whether men's hostile sexism and lower perceived power was associated with aggression during couple's daily lives. Both couple members reported on their daily psychological aggression for 21 days. Our assessment of daily aggression has been used in prior research (Cross et al., 2017; Overall et al., 2016) to target well-studied aggressive responses that: (a) are relevant to the daily course of relationships; (b) represent psychological aggression involving communication that is intended, or would be reasonably perceived as intended, to hurt partners and cause psychological pain (Gelles & Straus, 1979; Straus, 1979); (c) have harmful consequences for partners (Arriaga & Schkeryantz, 2015); and (d) are precursors to physical aggression in relation-

ships (Murphy & O'Leary, 1989). Moreover, to overcome the possibility that greater self-reports of aggression are a function of self-presentation effects or demand biases (e.g., lower power men trying to bolster their sense of control or image by reporting more aggression), we also gathered partners' reports of individuals' daily aggressive behavior and tested whether female partners reported experiencing greater aggression when men more strongly endorsed hostile sexism and perceived lower relationship power.

Method

Participants. This dyadic daily diary study was designed to examine how sexist attitudes and perceived relationship power shape daily relationship functioning (Hammond & Overall, 2013; Overall et al., 2016). Although prior articles have examined the effects of sexist attitudes and perceived power on daily behavior separately, the tests presented here represent the first examination of the associations between sexist attitudes and perceived power. Seventy-eight heterosexual couples replied to recruitment advertisements posted across a city campus. Males ages ranged from $17-48 \ (M = 23.00, SD = 4.98 \text{ years}), \text{ and females ages ranged}$ from 17-43 (M = 21.88, SD = 4.62 years). Couples were in relatively serious relationships (11% married, 33% cohabiting, 49% serious, and 7% steady) of an average length of 2.58 years (SD = 1.97). Couples were reimbursed NZD\$70 for the procedures described below. See online supplemental materials (OSM) for further sample and power information.

Procedure. During an initial session, participants completed scales assessing sexist attitudes and relationship power and received instructions regarding the completion of a Web-based 3-week daily record that included reports of daily aggression. On average, participants completed 19.3 diary entries, which represent 3,276 daily reports across the sample.

Measures. All measures were averaged across scale items. Table 1 presents descriptive and reliability statistics for all measures.

Sexist attitudes. The ASI (Glick & Fiske, 1996) measured participants' attitudes toward women. Eleven items assessed hostile sexism (e.g., "Women seek to gain power by getting control over men," "Once a woman gets a man to commit to her she usually tries to put him on a tight leash") and 11 items assessed benevolent sexism (e.g., "Women should be cherished and protected by men," "No matter how accomplished he is, a man is not truly complete unless he has the love of a woman"; -3 = strongly disagree, 3 = strongly agree).

Perceived relationship power. Participants completed the Sense of Power Scale with reference to their relationship (Anderson, John, & Keltner, 2012). This 8-item scale assesses individuals' perceived level of power (e.g., "I think I have a great deal of power in my relationship"), and ability to make decisions (e.g., "if I want to, I get to make the decisions"), influence their partner's behavior or opinions (e.g., "My ideas and opinions are often ignored by my partner" reverse-coded), and satisfy one's own goals and desires (e.g., "even when I try, I am not able to get my way," reverse-coded; 1 = strongly disagree, 7 = strongly agree).

Partners' reports of individuals' relationship power. As described above, a key aim of this research was to test whether perceptions of power were biased by comparing individuals' perceptions of their power to the power partners reported individuals to possess in their relationship. Thus, we also asked participants to complete the Sense of Power scale reworded to assess reports of their partner's relationship power (e.g., "I think my partner has a great deal of power"; 1 = strongly disagree, 7 = strongly agree).

Relationship satisfaction and attachment insecurity. To rule out the possibility that the predicted associations were because of more negative relationship evaluations or poor relationship histories and associated distrust of partners, we also assessed and controlled for both partners' relationship satisfaction and attachment insecurity. To assess *relationship satisfaction*, participants rated five items from an established scale by Rusbult, Martz, and

Table 1
Descriptive Statistics and Reliabilities Across Measures (Studies 1 and 2)

			Study 1			Study 2					
	Men		Women		Gender diff.	Men		Women		Gender diff.	
Measures	M (SD)	R	M (SD)	R	t	M (SD)	R	M (SD)	R	t	
Questionnaire measures											
Hostile sexism	.09 (1.14)	.86	06(1.19)	.84	.76	69(1.09)	.87	96(1.09)	.84	1.74	
Benevolent sexism	.32 (.99)	.77	19(1.01)	.76	3.19**	.01 (.99)	.77	66(1.08)	.81	4.55**	
Perceived relationship power	5.25 (.75)	.70	5.48 (1.10)	.90	-1.51	4.87 (1.01)	.86	5.33 (.99)	.85	-3.19**	
Partners' reports of individuals' relationship power	5.60 (.83)	.80	5.63 (.73)	.75	23	5.44 (.86)	.80	5.69 (.70)	.76	-2.17*	
Relationship satisfaction	5.60 (.77)	.84	6.03 (.77)	.88	29	5.59 (.92)	.84	5.81 (.84)	.88	-1.74	
Attachment anxiety	2.75 (1.00)	.82	3.23 (1.05)	.79	-2.92**	2.70 (.92)	.76	2.62 (1.02)	.79	1.26	
Attachment avoidance	2.80 (.97)	.76	3.03 (1.11)	.78	-1.41	2.53 (.89)	.79	2.71 (1.09)	.84	-2.37*	
Daily diary measures											
Daily aggression	1.93 (.78)	.65	2.07 (.76)	.70	-1.13		_		_	_	
Partners' reports of individuals' daily aggression	1.91 (.78)	.75	1.87 (.74)	.71	.30	_	_	_	_	_	
Conflict discussion measure											
Observer-rated aggression	_	_	_	_	_	1.49 (.64)	.94	1.75 (.85)	.92	-2.37^{*}	

Note. R = reliability. Possible scores range from -3 to 3 for hostile sexism and benevolent sexism, and 1 to 7 for all other scales. Daily diary aggression represents average levels of aggression across 21-days. All reliabilities represent Cronbach's α with the exception of daily measures that represent a correlation, and observer-rated aggression, which represents an intraclass correlation (ICC). Gender diff. t tests whether average levels of each variable significantly differed between men (coded as 1) and women (coded as -1).

* p < .05. ** p < .01.

Agnew (1998; "I feel satisfied with our relationship"; 1 = strongly disagree, 7 = strongly agree). To capture distrusting expectations of others and negative relationship histories that may be associated with sexist attitudes (Hart, Glick, & Dinero, 2013; Hart, Hung, Glick, & Dinero, 2012), we also assessed attachment insecurity with the Adult Attachment Questionnaire (AAQ; Simpson, Rholes, & Phillips, 1996). Eight items assessed attachment-related avoidance (e.g., "I'm not very comfortable having to depend on romantic partners") and nine items assessed attachment anxiety (e.g., "I often worry that my romantic partners don't really love me"; 1 = strongly disagree and 7 = strongly agree).

Daily aggression. Two items captured aggressive responses relevant to the day-to-day course of relationships ("I was critical or unpleasant toward my partner," "I acted in a way that could be hurtful to my partner"; 1 = strongly disagree, 7 = strongly agree). This measure has been previously associated with hostile sexism in a different sample (Cross et al., 2017). Cross et al. (2017) also included a rating of anger ("I felt angry at my partner") to assess the motivation for aggression, which we excluded to focus on aggressive behavior as assessed across all studies in the current research. Including anger produced identical results.

Partners' reports of individuals' daily aggression. To assess whether individuals' reports of daily aggression were corroborated by partners' reports that they received aggression, participants also rated the degree to which their *partners* behaved aggressively that day ("My partner was critical or unpleasant toward me," "My partner acted in a hurtful way toward me"; 1 = strongly disagree, 7 = strongly agree).

Results

Table 2 displays correlations across variables for men (above diagonal) and women (below diagonal). To (a) account for the statistical dependence in dyadic data (see across partner correlations in Table 2), (b) simultaneously model associations with the competing power variables, and (c) test for gender differences in the effects, we conducted dyadic regression analyses following the guidelines and SPSS syntax provided by Kenny, Kashy, and Cook (2006). For all analyses, we ran a two-intercept model to estimate effects for men and women while accounting for the dependence within dyads. We pooled effects across men and women and

modeled the main and interaction effects of gender to test whether the effects significantly differed across men and women (coded -1 women, 1 men; see Kenny et al., 2006; Overall et al., 2016). As is typical, we modeled both hostile and benevolent sexism to control for their positive association (see Table 2). Across studies, the results were virtually identical with or without controlling for benevolent sexism.

Hostile sexism and biased perceptions of relationship power.

We first assessed whether men's hostile sexism was associated with lower perceptions of relationship power, and tested whether these lower perceptions were biased. As shown in Table 2, men's (and not women's) hostile sexism was associated with lower perceived relationship power, but men's hostile sexism was not associated with partners' reports of men's power, indicating that these lower perceptions of power were biased. More formal analyses support these conclusions. Table 3 displays the results of dyadic analyses modeling the effects of sexist attitudes predicting (a) individuals' perceived relationship power, and (b) partners' reports of individuals' relationship power. As predicted, men's (but not women's) hostile sexism was associated with lower perceptions of relationship power (see Table 3, Study 1, "Predicting Perceived Relationship Power"). Moreover, men's hostile sexism was not significantly associated with partners' reports of individuals' power (see "Predicting Partners' Reports of Individuals' Relationship Power"). Thus, female partners do not agree that men who endorse hostile sexism have lower power suggesting that their lower perceptions of power are biased.

To more rigorously assess bias in men's reports, and specify the direction of any bias, we utilized the truth and bias model (West & Kenny, 2011). Specifically, we used partners' reports of individuals' power as a benchmark to test whether individuals underestimated the power they possessed in their relationship compared to their partners' view of that power, and we tested the degree to which hostile sexism predicted this level of bias. As specified by West and Kenny (2011), we used dyadic models to regress individuals' perceptions of power on partners' reports of individuals' power. We centered both variables on the mean of partners' reports of individuals' power so that the intercept indicates level of bias (i.e., whether individuals' perceptions of power are lower, the

Table 2
Correlations Across All Measures (Study 1)

Measures	1	2	3	4	5	6	7	8	9	10	11
1. Hostile sexism	.43**	.39**	39**	27*	09	16	.39**	.27*	23*	.31**	.19
2. Benevolent sexism	.14	.17*	12	.04	.18	05	05	01	.12	.30**	06
3. Perceived relationship power	01	02	.35**	.34**	.40**	.22	39**	34*	.20	12**	17
4. Reports of partners' relationship power	.05	16	.16	05	.26*	05	44**	08	.45**	10	31**
5. Partners' perceived relationship power	14	15	.40**	.22	.35**	.16	36**	37**	.21	.05	21
6. Partners' reports of individuals' relationship power	23*	.01	.26*	05	.34**	05	06	19	10	19	.04
7. Daily aggression	01	.16	16	21	23*	13	.37**	.48**	41**	.20	.34**
8. Partners' reports of individuals' daily aggression	.20	.18	33**	01	38**	41**	.28*	.41**	11	.17	.25*
9. Relationship satisfaction	.19	.04	.58**	.19	.41**	.11	23*	.06	.57**	22	42**
10. Attachment anxiety	.01	.05	19	.12	08	06	.09	.14	27^{*}	06	.25
11. Attachment avoidance	17	.08	13	19	09	.22	.27*	02	19	.10	.07

Note. Correlations for men are above the diagonal. Correlations for women are below the diagonal. Bold correlations on the diagonal represent correlations across partners. Daily aggression measures indicate average levels of daily aggressive behavior across 21-days.

* p < .05. ** p < .01.

Table 3

The Effects of Hostile Sexism on Perceived Relationship Power and Partners' Reports of Individuals' Relationship Power (Studies 1 and 2)

	Men				Women					Gender diff.		
	95% CI					95% CI						
Predictors	В	Low	High	t	r	В	Low	High	t	r	t	r
Study 1												
Predicting perceived relationship power												
Hostile sexism	23	37	09	-3.19**	34	02	21	.18	.87	.02	-1.87^{\dagger}	19
Benevolent sexism	04	20	.12	45	05	02	25	.22	16	02	12	02
Predicting partners' reports of individuals' relationship power												
Hostile sexism	13	31	.05	-1.49	17	14	28	00	-2.01*	22	.04	.00
Benevolent sexism	.02	.19	.23	.20	.02	02	14	.17	.29	.03	03	00
Study 2												
Predicting perceived relationship power												
Hostile sexism	46	65	27	-4.95**	45	11	31	.09	-1.09	11	-2.64**	20
Benevolent sexism	.23	.03	.44	2.29*	.22	22	42	02	-2.20*	21	3.24**	.25
Predicting partners' reports of individuals' relationship power												
Hostile sexism	17	34	.01	-1.86	19	.02	12	.17	.38	.04	-1.66	12
Benevolent sexism	.10	09	.29	1.02	.10	11	26	.03	-1.51	15	-1.70	13

Note. CI = confidence interval. Gender diff. coefficients test whether the effects significantly differed across men (coded as 1) and women (coded as -1). Predicted effects for men are shown in bold. Effect sizes (r) were computed using Rosenthal and Rosnow's (2007) formula: $r = \sqrt{(t^2/t^2 + df)}$. * p < .05. ** p < .01.

same, or higher than partners' reports of individuals' power).⁴ Zero indicates no discrepancy or bias. Negative values indicate an underestimation of relationship power compared with partner reports, and positive values indicate an overestimation of relationship power compared with partner reports. We added hostile and benevolent sexism as predictors, which tested whether sexist attitudes predicted the level of bias in perceived power.

As shown in Table 4, the intercept was negative for both men and women. Although the intercept was significant for men, but not women, the gender difference testing the level of bias across men and women was not significant. This pattern indicates that participants generally perceived lower power in their relationship than the partner reported their relationship power to be. More important to the central aims of this study, men's hostile sexism predicted more biased perceptions of power, women's hostile sexism did not, and this gender difference was significant. To illustrate the effect of men's hostile sexism, Figure 2 plots the level of bias at high (1 SD) and low (-1 SD) levels of hostile sexism. Men high in hostile sexism demonstrated a significant underestimation of power compared with their partner's reports (intercept representing bias, B = -.59, t = -5.04, p < .001, r = -.46), whereas men low in hostile sexism demonstrated no bias compared to their partner's reports (B = -.06, t = -0.53, p = .60, r = -.05).

Overall, the pattern of results indicates that men who endorse hostile sexism have biased perceptions of power in their relationship. Men who more strongly endorse hostile sexism perceived themselves to have lower power. However, female partners did not report that men who more strongly endorsed hostile sexism had lower power than men who more weakly endorsed hostile sexism. Moreover, comparisons across individuals' perceptions and partner reports suggested that men who more strongly (but not weakly) endorsed hostile sexism underestimated their power compared to their partner reports. This shows that men who strongly endorse hostile sexism perceive lower relationship power than men who

weakly endorse hostile sexism in the context of the same levels of power reported by their partners.

Hostile sexism, lower perceived relationship power, and daily aggression. Next, we tested whether the lower perceived power associated with men's hostile sexism was, in turn, associated with daily aggression toward relationship partners (see top pathway in Figure 1). Following Kenny et al.'s (2006) recommendations for analyzing repeated measures dyadic data using the MIXED procedure in SPSS 24, we ran two nested models to test our prediction that the lower perceived power reported by men higher in hostile sexism would be associated with greater daily aggression. First, we assessed the direct effects between hostile sexism and individuals' reports of daily aggression by regressing the repeated daily reports of aggressive behavior toward the partner on hostile and benevolent sexism (grand-mean centered). As shown by the correlations in Table 2 and the coefficients from dyadic models in Table 5 (Model 1), men's stronger endorsement of hostile sexism was associated with greater daily aggression.

Second, to test the indirect effects between hostile sexism and aggression via lower perceived power (see Figure 1), we added individuals' own perceptions of their relationship power (grandmean centered) into the model (Model 2). As shown in Table 5 (Model 2), lower perceived power predicted greater aggression independent of the effect of hostile sexism. We followed the procedures outlined by MacKinnon, Fritz, Williams, and Lock-

⁴ West and Kenny (2011) specify perceptions to be centered using the mean across all dyad members regardless of any distinguishing factor, such as gender. However, given that our aims and predictions specify gender differences, we centered male's perceptions of power on the mean of female partners' reports of power and female's perceptions of power on the mean of male partners' reports of power. This ensured that the resulting level of bias depicted in Figure 2 indexed the specific comparisons for men. However, running the analyses using the mean of partners' reports across dyad members irrespective of gender resulted in virtually identical results for both Studies 1 and 2. See OSM for more information.

Table 4	
Bias Analyses Modelling the Effect of Hostile Sexism on Discrepancies in Perceived Relationship Power From Partner	s' Reports of
Individuals' Power (Studies 1 and 2)	

		Men							Gender diff.			
		95%	6 CI				95%	6 CI				
Predictors	B	Low	High	t	r	B	Low	High	t	r	t	r
Study 1												
Intercept (discrepancy or bias)	32	49	16	-4.00**	42	15	41	.10	-1.21	14	-1.34	17
Hostile sexism	23	38	08	-3.15**	34	.03	18	.23	.25	.03	-2.16*	21
Benevolent sexism	02	19	.14	28	03	03	27	.20	28	03	.08	.01
Partners' reports of individuals' power	.09	09	.27	1.04	.12	.27	06	.60	1.61	.18	90	09
Study 2												
Intercept (discrepancy or bias)	58	76	40	-6.45**	56	45	65	25	-4.47**	42	96	24
Hostile sexism	41	59	23	-4.59 **	43	07	27	.13	65	07	-2.55^{*}	19
Benevolent sexism	.20	.01	.40	2.09^{*}	.21	24	45	04	-2.38*	24	3.15**	.24
Partners' reports of individuals' power	.40	.20	.60	3.93**	.38	03	31	.25	23	02	2.49*	.19

Note. CI = confidence interval. Gender diff. coefficients test whether the effects significantly differed across men (coded as 1) and women (coded as -1). Predicted effects for men are shown in bold. Effect sizes (r) were computed using Rosenthal and Rosnow's (2007) formula: $r = \sqrt{(t^2/t^2 + df)}$.

* p < .05. ** p < .01.

wood (2007) to calculate confidence intervals for the indirect effects linking the associations between hostile sexism and perceived power (see Table 3) and the associations between perceived power and aggression controlling for sexism ("Daily Aggression," Model 2, Table 5) accounting for the asymmetric distributions of the product of SEs. As shown in Table 6, the confidence intervals for men (but not women) did not overlap zero, supporting that men's hostile sexism indirectly predicted greater self-reported daily aggression toward female partners through lower perceptions of relationship power.

Partners' reports of individuals' daily aggression. Analogous models replacing self-reported aggression with partners' reports of individuals' aggression corroborated that female partners experienced the aggression associated with men's hostile sexism and lower perceived power. As shown in the lower half of Table 5, men's stronger endorsement of hostile sexism predicted greater partner reports of individuals' daily aggression (Model 1), and

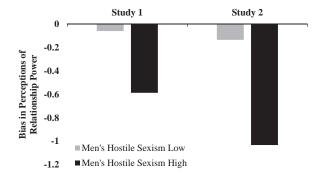


Figure 2. Effects of men's hostile sexism predicting biased perceptions of relationship power (Studies 1 and 2). Note: The values on the y-axis represent the discrepancy between individuals' perceptions of relationship power and partners' reports of individuals' power. Zero indicates no discrepancy or bias. Negative values indicate underestimation of relationship power compared with partner reports, and positive values indicate overestimation of relationship power compared with partner reports. High and low values of hostile sexism represent 1 SD above and below the mean.

lower perceived relationship power predicted greater partners' reports of individuals' aggression independent of the effect of hostile sexism ("Partners' Reports of Individuals' Daily Aggression," Model 2). Finally, the indirect effect linking the significant associations between hostile sexism, lower perceived power and partners' reports of men's aggression was significant for men, and not women (see Table 6).

Alternative explanations and control analyses. Our final aims were to consider a range of alternative explanations for the associations between hostile sexism, perceptions of relationship power, and aggression. We expected the associations to be specific to men's hostile sexism and not benevolent sexism, and wanted to rule out the possibility that the links between men's hostile sexism and lower perceived power arose because sexist attitudes facilitated aggressive responses in relationships. We also wanted to show that the associations were not simply the result of more dissatisfying relationships or distrusting expectations within dependence-based relationships as is most often indexed by attachment insecurity.

Benevolent sexism. The associations between sexism and lower perceived power were unique to hostile sexism. Men's and women's benevolent sexism were not associated with perceived power (see Tables 3 and 4). However, as shown in Table 5, men's endorsement of benevolent sexism predicted less daily aggression toward partners, women's endorsement of benevolent sexism predicted greater daily aggression toward partners, and these effects remained unchanged when modeling perceived relationship power. These results are consistent with men's benevolent sexism promoting a more open and accepting influence of women's power and influence, and women's benevolent sexism promoting more aggressive responses when their relationships do not live up to their lofty ideals (see Hammond & Overall, 2017; Overall et al., 2011). Nonetheless, the pattern with benevolent sexism provides additional evidence that men's hostile sexism uniquely predicts the experience of lower power in relationships and associated aggressive responses toward female partners.

Aggression. Despite examining aggressive behavior for the 3 weeks after couples' completion of the sexist attitudes and rela-

Table 5

The Effects of Hostile Sexism and Perceived Relationship Power on Self-Reported Daily Aggression and Partners' Reports of Individuals' Daily Aggression (Study 1)

			Men					Gender diff.				
		95%	6 CI				95%	6 CI				
Predictors	B	Low	High	t	r	В	Low	High	t	r	t	r
Daily aggression												
Model 1												
Hostile sexism	.24	.18	.29	7.97**	.67	03	09	.03	-1.04	12	6.90**	.50
Benevolent sexism	16	23	10	-4.83**	48	01	07	.06	19	02	-3.27**	27
Model 2												
Perceived relationship power	21	29	12	-4.60**	47	.08	.02	.14	2.72**	.30	-5 .71 **	43
Hostile sexism	.18	.11	.24	5.54**	.54	03	09	.03	-1.01	12	5.11**	.40
Benevolent sexism	14	21	08	-4.37**	45	01	07	.06	20	02	-2.93**	24
Partners' reports of individuals' daily aggression												
Model 1												
Hostile sexism	.19	.11	.27	4.51**	.46	.01	06	.07	.19	.02	3.24**	.26
Benevolent sexism	10	18	03	-2.48*	28	.04	03	.12	1.19	.13	-2.60**	21
Model 2												
Perceived relationship power	22	32	13	-4.59**	47	13	19	08	-4.74**	48	-1.80	15
Hostile sexism	12	.04	.21	2.80**	.31	.01	05	.07	.22	.03	1.98*	.16
Benevolent sexism	09	17	01	-2.24*	25	.04	03	.11	1.12	.13	-2.39*	20

Note. CI = confidence interval. Model 1 tests the direct effects between hostile sexism and daily aggression. Model 2 tests the effects between perceived relationship power and aggression accounting for sexist attitudes. The indirect effects in Table 6 link the associations between hostile sexism and perceived power shown in Table 3 with the associations between perceived relationship power and aggression controlling for sexism shown here in Model 2. Gender diff. coefficients test whether the effects significantly differed across men (coded as 1) and women (coded as -1). Predicted effects for men are shown in bold. Effect sizes (r) were computed using Rosenthal and Rosnow's (2007) formula: $r = \sqrt{(t^2/t^2 + df)}$.

* p < .05.

** p < .05.

tionship power questionnaires, it could be possible that men who endorse hostile sexism perceive lower power because their aggressive responses in daily life undermine their power in the relationship. Alternatively, perhaps men's hostile sexism incites aggressive responses in the partner, which also reduces their relationship power (Overall, Fletcher, Simpson, & Sibley, 2009, Overall et al., 2011). Although the bias analyses provide some evidence against these alternatives, we reran the analyses testing the links between sexist attitudes and perceived power controlling for individuals'

and partners' daily aggressive behavior averaged across the 21 daily reports. The significant association between men's hostile sexism and perceived power was not altered when controlling for men's own (B=-.20,95% confidence interval, CI [-.35,-.05], $t=-2.57,\ p=.012,\ r=-.28$) or their female partners' (B=-.24,95% CI [-.39,-.10], $t=-3.26,\ p=.002,\ r=-.34$) aggressive behavior across the 3-week diary period.

Relationship satisfaction and insecurity. Finally, our perspective highlights that the dependence fears and need to pro-

Table 6
Indirect Effects Between Men's Hostile Sexism, Perceived Relationship Power, and Daily Aggression (Study 1) and Observer-Rated Aggression (Study 2)

	95% с	onfidence in	terval
Indirect effect tested	Indirect effect	Lower limit	Upper limit
Study 1			
Self-reported daily aggression as dependent variable			
Men's hostile sexism \rightarrow perceived relationship power \rightarrow daily aggression	.047	.016	.087
Women's hostile sexism \rightarrow perceived relationship power \rightarrow daily aggression	001	020	.017
Partners' perceptions of individuals' daily aggression as dependent variable			
Men's hostile sexism \rightarrow perceived relationship power \rightarrow partners' reports of individuals' daily aggression	.065	.021	.120
Women's hostile sexism → perceived relationship power → partners' reports of individuals' daily aggression	008	040	.023
Study 2			
Observer-rated aggressive communication during couples discussions as dependent variable			
Men's hostile sexism \rightarrow perceived relationship power \rightarrow observer-rated aggressive communication	.079	.021	.150
Women's hostile sexism → perceived relationship power → observer-rated aggressive communication	.001	026	.028

Note. For Study 1, Tables 3 and 5 present the estimates for associations between variables indicated by \rightarrow . For Study 2, Tables 3 and 9 present the estimates for associations between variables indicated by \rightarrow . Predicted effects for men are shown in bold. Asymmetric confidence intervals (CIs) were calculated following Mackinnon, Fritz, Williams, and Lockwood (2007). CIs shown in bold do not overlap "0."

tect power central to men's hostile sexism should be uniquely associated with perceptions of power, and that these perceptions are an important factor that predicts aggression toward partners. However, it is possible that more general relationship dissatisfaction and insecurities are associated with biased perceptions of power or aggression, and these features account for the hostile sexism, perceived power and aggression associations. As shown in Table 2, men's (and not women's) hostile sexism was associated with lower relationship satisfaction and greater attachment anxiety. Thus, we reran all the analyses controlling for individuals' own and their partners' relationship satisfaction and individuals' own and their partners' attachment insecurity. As is typical, we modeled both attachment anxiety and avoidance as simultaneous predictors in analyses controlling for attachment insecurity. None of the effects of men's hostile sexism reported above were reduced in these analyses. To illustrate the robustness of the focal effects, Table 7 displays the association between men's hostile sexism and perceived power, perceived power and aggression, and the associated indirect effects when controlling for each alternative explanation. These results provide further evidence of the unique associations between men's hostile sexism, perceived power, and aggression.

Study 2

Study 1 provided initial evidence for our predictions. First, as predicted, men's hostile sexism was associated with lower percep-

tions of power. Moreover, comparisons across partners indicated that these lower perceptions were biased. Female partners did not agree that men who strongly endorsed hostile sexism had lower power than men who weakly endorsed hostile sexism, and dyadic bias analyses comparing perceptions of power with partners' reports supported that men who strongly endorsed hostile sexism underestimated the power they had in their relationships whereas men who weakly endorsed hostile sexism did not. Second, by collecting dyadic data across couple's daily lives, Study 1 also demonstrated the implications of the association between hostile sexism and lower perceived power for couples' daily lives. Men's stronger endorsement of hostile sexism and associated lower perceived power predicted greater aggressive responses toward partners during couples' routine relationship interactions as reported by both partners. Finally, these results were specific to men's hostile, not benevolent, sexism and were not because of female partners' aggressive responses or either partners' general relationship satisfaction or insecurity.

Study 2 was designed to replicate and extend the associations between hostile sexism, lower relationship power, and aggression toward intimate partners. First, we gathered the same assessments of relationship power from both partners' perspectives to replicate that men higher in hostile sexism underestimate the power they have in their relationships. Second, we extended the self-report assessments of aggression in Study 1 by gathering observer-ratings of aggression during couples' video-recorded conflict discussions in the laboratory. Relationship conflicts involve partners trying to

Table 7
Primary Associations Between Men's Hostile Sexism, Lower Perceived Relationship Power, and Aggression Controlling for Relationship Satisfaction and Insecurity (Studies 1–4)

	Men's	s HS →	Perceive	d Power (Pa	ath A)	Percei	ved Pow	er → A	ggression (I	Path B)	Inc	direct effec	ct
		95%	i CI				95%	i CI					
Control variables	В	Low	High	t	r	В	Low	High	t	r	Indirect effect	Lower limit	Upper limit
Study 1													
Primary associations	23	37	09	-3.19**	34	21	29	12	-4.60**	47	.047	.016	.087
Individuals' satisfaction	23	39	07	-2.91**	32	19	28	10	-4.30**	45	.044	.012	.085
Individuals' attachment insecurity	16	30	02	-2.31^{*}	25	20	29	10	-4.17**	43	.032	.004	.068
Partners' satisfaction	25	39	12	-3.76**	40	11	21	01	-2.19**	25	.028	.003	.062
Partners' attachment insecurity	23	37	08	-3.14**	34	22	31	13	-4.77**	48	.049	.016	.091
Study 2													
Primary associations	46	64	28	-4.95**	45	17	29	10	-2.76**	27	.079	.021	.015
Individuals' satisfaction	41	58	23	-4.65^{*}	43	12	25	.01	-1.77^{\dagger}	18	.047	005	.011
Individuals' attachment insecurity	36	55	17	-3.69**	36	15	28	02	-2.30*	23	.053	.007	.116
Partners' satisfaction	41	59	22	-4.44**	42	19	32	06	-2.83**	28	.077	.021	.148
Partners' attachment insecurity	43	62	24	-4.49**	42	15	28	03	-2.49^*	25	.066	.013	.133
Study 3													
Primary associations	20	37	03	-2.33*	21	15	24	06	-3.19**	29	.030	.003	.067
Individuals' satisfaction	16	32	00	-2.01*	19	14	24	05	-2.91**	26	.023	.000	.057
Individuals' attachment insecurity	17	34	.00	-2.00*	19	14	23	04	-2.93**	27	.024	.000	.058
Partners' satisfaction	20	36	04	-2.49^*	21	15	24	05	-3.04**	28	.030	.004	.067
Partners' attachment insecurity	19	36	02	-2.17^*	20	15	24	05	-3.10**	28	.028	.002	.065
Study 4													
Primary associations	31	41	20	-5.65**	37	26	39	14	-4.09**	28	.081	.037	.134
Individuals' satisfaction	13	23	04	-2.86**	19	20	36	04	-2.50**	17	.027	.003	.060

Note. CI = confidence interval. Effect sizes r for Studies 1–3 were computed using Rosenthal and Rosnow's (2007) formula: $r = \sqrt{(t^2/t^2 + df)}$, r for Study 4 are standardized beta coefficients. Path A and B control for desire for power (in Studies 3 and 4 only), Path B controls for hostile and benevolent sexism. Analyses controlling for attachment insecurity modeled both attachment anxiety and avoidance as simultaneous predictors. Asymmetric confidence intervals were calculated following Mackinnon, Fritz, Williams, and Lockwood (2007).

† p = .080. * p < .05. ** p < .05. ** p < .05.

influence and resist influence from each other, and so are a key context in which the implications of hostile sexism and relationship power for relationship aggression should emerge (Cross et al., 2017; Overall et al., 2011, 2016). Replicating Study 1, we predicted that men's hostile sexism would predict biased perceptions of lower relationship power, and that lower perceptions of power would predict greater aggressive communication observed during couples' conflict discussion. Also replicating Study 1, we expected these associations to arise from men's hostile sexism, and not benevolent sexism, and to be independent of relationship satisfaction and insecurity.

Method

Participants. Study 2 was designed and run to test the predicted associations along with additional aims involving broader parent-child dynamics. We aimed to recruit 100 families (couples and their 5-year-old child) which balanced the resources required for this large project with the power needed to detect small actor and partner effect sizes (Ackerman, Ledermann, & Kenny, 2016). After recruiting 104 families, and excluding six couples who did not provide the measures needed for this study, participants included members of 98 couples recruited from a database of parents who had registered interest in participating in response to community advertisements and annual parenting events. Ages ranged from 22-66 years (M = 37.90, SD = 6.88) for men, and 21-46 (M = 35.46, SD = 5.58) for women. Couples were married (85%) or cohabiting (15%), with an average relationship length of 11.77 years (SD = 4.03). Couples were reimbursed NZD\$100. See OSM for further sample information.

Procedure. Couples attended a lab-based session. After completing assessments of sexist attitudes and relationship power, each partner identified and ranked according to severity two ongoing conflicts. Following a warm-up discussion about nonconflictual events over the past week, couples had a video-recorded 7-min discussion about their most serious conflict.

Measures.

Sexist attitudes, relationship power, and partners' reports of individuals' power. Participants completed the same scales as in Study 1 to assess sexist attitudes and relationship power (see Table 1).

Relationship satisfaction and attachment insecurity. Participants completed the same scales as in Study 1 to assess these alternative explanations (see Table 1).

Observational coding of aggressive communication. Three trained coders independently rated the aggressive communication each participant exhibited using an established coding scheme that incorporates the most commonly assessed hostile conflict behaviors (Overall et al., 2009). This coding schedule has been used in prior research to assess the associations between hostile sexism and aggression (Cross et al., 2017; Overall et al., 2011) and low relationship power and aggression (Overall et al., 2016). Coded behaviors included derogating partners (e.g., criticizing, insulting, and belittling), expressing harsh negative affect (e.g., anger, frustration, and yelling), and threatening partners. These behaviors represent oppositional, aggressive acts to undercut the partners' influence and restore power and control (Overall et al., 2016; Overall & McNulty, 2017). Coders took into account the frequency, intensity, and duration of behaviors across the discussion (1 = low, 7 = high) and rated men's and women's aggression in independent viewings (order counterbalanced). Coder ratings were reliable and averaged to construct an overall score of each person's aggressive communication (see Table 1).

Results

Table 8 displays the correlations across all variables. We used the dyadic regression procedures outlined in Study 1 to appropriately calculate the predicted associations to account for the dependence across partners, control for the association between hostile and benevolent sexism (see Table 8), and test whether the gender differences were significant.

Hostile sexism and biased perceptions of relationship power. We first examined whether men's hostile sexism was associated with lower perceptions of relationship power, and tested whether these lower perceptions were biased. The correlations in Table 8 replicate Study 1: men's hostile sexism was negatively associated with perceived relationship power, but was not associated with partners' reports of individuals' relationship power, indicating that these lower perceptions of power were biased. Table 3 displays the results from dyadic analyses modeling the effects of sexist attitudes predicting (a) individuals' perceived relationship power, and (b) partners' reports of individuals' relationship power (see right

Table 8
Correlations Across All Measures (Study 2)

Measures	1	2	3	4	5	6	7	8	9	10
1. Hostile sexism	.30**	.45**	40**	17	15	15	.34*	16	.35**	.28**
2. Benevolent sexism	.47**	.23**	.01	12	09	.03	09	03	.11	.07
3. Perceived relationship power	20^{*}	29**	.13	.22*	.17	.40**	42**	.44**	38**	28**
4. Reports of partners' relationship power	.01	09	.50**	07	.01	05	.00	.15	20^{*}	15
5. Partners' perceived relationship power	.06	04	.17	.40**	.13	.50**	21*	.35**	11	14
6. Partners' reports of individuals' relationship power	04	15	.01	05	.22*	07	30**	.37**	16	.00
7. Observer-rated aggression	.01	.16	10	13	31**	11	.44**	37**	.27**	.16
8. Relationship satisfaction	.11	.03	.38**	.47**	.38**	.17	26*	.24**	31**	24*
9. Attachment anxiety	.14	.05	29**	25^{*}	13	07	.03	37^{**}	.19**	.37**
10. Attachment avoidance	.08	.02	25*	35**	29**	10	.04	36**	.36**	.25**

Note. Correlations for men are above the diagonal. Correlations for women are below the diagonal. Bold correlations on the diagonal represent correlations across partners.

p < .05. p < .01.

side). Replicating Study 1, men's (but not women's) hostile sexism was associated with lower perceptions of relationship power for men (see Table 3, "Predicting Perceived Relationship Power"). Moreover, indicating that these lower perceptions were biased, partners did not agree that men who endorsed hostile sexism had lower power: that is, men's hostile sexism did not predict partners' reports that men had lower power (see Table 3, "Predicting Partners' Reports of Individuals' Relationship Power").

As in Study 1, we then used the truth and bias model (West & Kenny, 2011) to more clearly assess bias in perceptions of power by specifying the discrepancies across individuals' perceptions of relationship power and partners' reports of individuals' relationship power (see Study 1 for analytic details). As shown in Table 4, the intercept representing bias was negative and significant for both men and women, and there was no gender difference. As in Study 1, this pattern indicates that participants tended to perceive they had lower power than the partner reported their relationship power to be. Moreover, replicating the results of Study 1, hostile sexism predicted greater biased perceptions of power for men, but not women, and this gender difference was significant. As shown in Figure 2 (see right side), men high (1 SD) in hostile sexism underestimated their level of power compared to their partner's reports of their power (intercept representing bias, B = -1.03, t = -7.75, p < .001, r = -.63). Men low (-1 SD) in hostile sexism demonstrated no bias in their perceptions of power (B = -.14, t = -1.02, p = .31, r = -.10). This pattern again supports that the lower perceptions of power associated with men's stronger endorsement of hostile sexism is because of their concerns and vigilance about losing power rather than actual differences in power between men who strongly versus weakly endorse hostile sexism.

Hostile sexism, lower perceived relationship power, and aggressive communication. As in Study 1, we next ran two dyadic models to test the links between hostile sexism, perceived power, and aggression. As shown in Table 9 (Model 1), assessing the direct effects between sexist attitudes and aggression revealed that hostile sexism predicted greater aggressive communication during couples' conflict discussions for men, not women, and this gender difference was significant. Moreover, adding perceived power into the model (Model 2) supported that lower perceived power played a mediating role in the links between hostile sexism and aggression: lower power predicted greater aggressive communication over and above the effects of sexist attitudes, and controlling for perceived power removed the associations between men's hostile sexism and aggressive communication. As shown in Table 6 (see Study 2), the indirect effect linking the significant associations between men's hostile sexism and lower perceived relationship power (from Table 3, Study 2) and lower perceived power and aggressive communication during couples' conflict interactions controlling for sexist attitudes (from Table 9, Model 2) was significant for men, and not women. Thus, as in Study 1, these results provide correlational evidence for the top pathway in Figure 1 suggesting that men who endorse hostile sexism communicate more aggressively during couples' interactions because they perceive they lack power in their relationships.

Alternative explanations and control analyses.

Benevolent sexism. Greater men's benevolent sexism was associated with greater (not lower) perceived power in Study 2 (see Table 3), and so perceiving lower power was unique to men's

endorsement of hostile sexism. In addition, women who more strongly endorsed benevolent sexism perceived lower power (see Table 3). However, these associations between benevolent sexism and perceived power were not replicated in the other studies.⁵

Aggression. As in Study 1, we wanted to rule out the possibility that the links between men's hostile sexism and perceived power were the result of greater aggression in the relationship by rerunning the models assessing the link between sexist attitudes and perceived power controlling for individuals' and partners' aggressive communication. As in Study 1, the significant association between men's hostile sexism and perceived power was not altered when controlling for men's own (B = -.37, 95% CI [-.56, -.19], t = -3.97, p < .001, r = -.38) or their female partners' (B = -.42, 95% CI [-.61, -.24], t = -4.53, p < .001, r = -.42) aggressive behavior during the conflict discussion.

Relationship satisfaction and insecurity. Finally, as in Study 1, we reran all of the analyses controlling for individuals' own and their partners' relationship satisfaction and attachment insecurity. As shown in Table 8, men's (but not women's) hostile sexism was associated with greater relationship insecurity (attachment anxiety and avoidance). However, as shown in Table 7, the links between men's hostile sexism and perceived power, perceived power and aggression, and the associated indirect effects, were unaltered when controlling for either partners' relationship satisfaction or insecurity.

Study 3

Study 2 replicated the effects of Study 1 by showing that men's hostile sexism was associated with lower perceptions of power, and these lower perceptions were biased, such that men who more strongly endorsed hostile sexism underestimated the power they had in their relationships compared to female partners' reports of their power. Moreover, extending the daily diary reports of routine aggressive behavior in Study 1, lower perceived power was associated with greater aggressive communication during couples' conflict discussion as rated by objective observers. Finally, these results were robust to alternative explanations.

In Study 3, we aimed to replicate the associations between hostile sexism, perceived power, and aggression in a sample of newlywed couples. Replicating Studies 1 and 2, we expected that men who more strongly endorsed hostile sexism would perceive themselves to have lower power in their relationships, and this lower perceived power, in turn, would be associated with greater

⁵ To examine the reliability of these unexpected effects that were inconsistent across studies, we conducted a meta-analysis of the associations between benevolent sexism and perceptions of power. The association between benevolent sexism and perceived relationship power was not significant for men (t = 0.99, p = .32, 95% CI [-.04, -.13], r = .05) or women (t = -1.41, p = .16, 95% CI [-.23, .04], r = -.10). For completeness, we also conducted a meta-analysis of the associations between benevolent sexism and aggression across Studies 1-4. The results indicated that benevolent sexism was not significantly associated with relationship aggression for men (t = -1.60, p = .11, 95% CI [-.36, .04], -.17) or women (t = 1.44, p = .15, 95% CI [-.02, .14], r = .06). These nonsignificant main effects are consistent with prior research showing context-dependent associations between women's benevolent sexism and aggressive responses, such as when relationships do not deliver what benevolent sexism promises (e.g., Hammond & Overall, 2014; Overall et al., 2011).

Table 9 The Effects of Hostile Sexism and Perceived Relationship Power on Observer-Rated Aggressive Communication During Couple's Conflict Discussions (Study 2)

			Men					Gender diff.				
		95%	6 CI				95%	6 CI				
Predictors	В	Low	High	t	r	B	Low	High	t	r	t	r
Model 1												
Hostile sexism	.13	.02	.25	2.22*	.22	07	23	.09	83	08	2.31*	.20
Benevolent sexism	12	24	01	-1.86	19	.12	05	.29	1.44	.14	-2.83**	24
Model 2												
Perceived relationship power	17	29	04	-2.71**	27	02	19	.15	23	02	-1.54	12
Hostile sexism	.06	06	.19	.99	.10	09	25	.08	-1.06	11	1.70	.15
Benevolent sexism	09	21	.04	-1.44	15	.13	05	.30	1.47	.15	-2.46^{*}	22

Note. CI = confidence interval. Model 1 tests the direct effects between hostile sexism and observer-rated aggression during couples' conflict discussions. Model 2 tests the effects between perceived relationship power and aggression accounting for sexist attitudes. The indirect effects in Table 6 link the associations between hostile sexism and perceived power shown in Table 3 with the associations between perceived relationship power and observer-rated aggression controlling for sexism shown here in Model 2. Gender diff. coefficients test whether the effects significantly differed across men and women. Predicted effects for men are shown in bold. Effect sizes (r) were computed using Rosenthal and Rosnow's (2007) formula: $r = \sqrt{(t^2/t^2 + df)}$. * p < .05. ** p < .01.

relationship aggression (top pathway in Figure 1). We also tested whether the predicted associations between hostile sexism, lower perceived power, and aggression (top pathway in Figure 1) were distinct from any, potentially opposing, associations between hostile sexism, a greater desire for power, and aggression (bottom pathway in Figure 1). To do this, we simultaneously examined the associations between hostile sexism, perceived versus desired relationship power, and self-reported aggression. We expected the links between hostile sexism and perceived power to occur independently of any potential associations between hostile sexism and a greater desire for power. Finally, we also wanted to rule out alternative explanations for the predicted effects, including both partners' aggression and relationship evaluations as in Studies 1 and 2, as well as ruling out that the associations were simply the result of general, trait-level interpersonal dominance.

Method

Participants. Participants were members of 119 newlywed couples who participated in a broader study of marriage. The measures analyzed here were specifically included in this large study to examine the effects of sexist attitudes and power on aggression and other relationship processes. Because of the broader aims of the study assessing relationship development across the early years of marriage, participation required being married for fewer than 3 months and being at least 18 years of age. Couples were compensated \$100USD for a lab-based session that included the questionnaires examined here. Males ranged from 20-72 years old (M = 32.09, SD = 9.88), and females ranged from 19-55 years (M = 30.15, SD = 8.09). Couples had been together for an average of 3.77 years (SD = 2.51) before marriage, and 27% of the couples had children. See OSM for more sample and power information.

Procedure and measures. All measures were averaged across scale items. Table 10 presents descriptive and reliability statistics for all measures.

Sexist attitudes and perceived relationship power. Participants completed the same scales assessing sexist attitudes and perceived relationship power as in Studies 1-2, with minor changes to the scale items to reference "marriage" and "spouse" rather than "relationship" and "partner."

Desire for relationship power. To assess desire for power we followed prior assessments examining desires for power as well as preferences in relationships. In particular, the associations between hostile sexism and desires for power are evident in valuing power by rating power and dominance as very important (Feather, 2004; also see Schwartz, 1996). Similarly, assessments of desired attributes in relationships, such as mate preferences, ask individuals to rate how important it is for partners to possess relevant attributes (e.g., Fletcher, Simpson, Thomas, & Giles, 1999). Accordingly, to assess the degree to which participants desired to possess relationship power we adapted the Sense of Power Scale (Anderson et al., 2012) by rewording each item to assess the extent to which it was important for participants to have high levels of power (e.g., "It is important to me that I have a great deal of power in my marriage"; "It is important to me that I get to make the decisions in my marriage"; "It is important to me that I can get my partner to do what I want"; "It is not important to me that I get my way in my marriage," reverse-coded; 1 = strongly disagree, 7 = strongly agree). Thus, items assessed how much people desired or preferred to possess high levels of relationship power independent of how much power they held in the relationship.

Relationship aggression. Participants completed a 9-item version of the Conflict Tactics Scale (CTS; Straus, 1979). From "a list of some things that you and/or your spouse might have done when you had a dispute," participants indicated how often they engaged in each of nine aggressive acts over the past year (1 = never, 2 =once, 3 = twice, 4 = more). Three items assessed verbal aggression (e.g., "insulted or swore at your partner") and six items assessed physical aggression (e.g., "pushed, grabbed, or shoved your partner," "slapped spouse"). The pattern of effects was consistent when modeling verbal and physical aggression as separate dependent variables.

Relationship satisfaction and attachment insecurity. Participants completed the same attachment scales as in Study 1 and 2.

Table 10
Descriptive Statistics and Reliabilities Across Measures (Studies 3 and 4)

			Study 3					Study 4		
	Men		Women		Gender diff.	Men		Women		Gender diff.
Measures	M (SD)	α	M (SD)	α	t	M (SD)	α	M (SD)	α	t
Hostile sexism	-0.53 (1.05)	.87	-0.58 (1.13)	.88	0.36	-0.48 (1.32)	.92	-0.97 (1.34)	.92	4.11**
Benevolent sexism	0.23 (.99)	.82	-0.18(1.12)	.86	2.99**	0.07 (1.16)	.88	-0.34(1.22)	.89	3.83**
Perceived relationship power	5.29 (.91)	.84	5.39 (0.94)	.83	-0.85	5.07 (1.08)	.87	5.27 (1.17)	.90	-1.93^{\dagger}
Desire for relationship power	4.86 (.77)	.70	5.04 (0.73)	.65	-1.90^{\dagger}	4.73 (0.95)	.81	4.99 (0.91)	.78	-3.15**
Self-reported aggression (past year)	1.43 (.49)	.79	1.51 (0.55)	.82	-1.13	1.97 (0.96)	.90	2.06 (1.00)	.89	-0.93
Relationship satisfaction	6.43 (.67)	.91	6.41 (0.75)	.90	0.30	5.59 (1.27)	.94	5.59 (1.32)	.94	-0.46
Attachment anxiety	2.95 (1.14)	.82	2.88 (1.27)	.87	0.45	_	_		_	_
Attachment avoidance	2.54 (1.00)	.81	2.71 (1.13)	.82	-1.20	_	_	_	_	_
Alternative dominance-based characteristics										
Interpersonal dominance	4.55 (.90)	.73	4.47 (0.97)	.80	0.72	3.58 (1.28)	.81	3.22 (1.23)	.80	3.17**
Desire for power over women	_	_	_	_	_	2.84 (1.14)	.77	2.54 (1.14)	.74	2.87**
Propensity for violence	_	_	_	_	_	3.75 (1.48)	.81	2.95 (1.39)	.82	6.12**

Note. Possible scores range from -3 to 3 for hostile sexism and benevolent sexism, and 1 to 7 for all other scales, with the exception of aggression in Study 3, which was assessed on a 1 to 4 scale. α represents Cronbach's α reliabilities. Gender diff. t tests whether average levels of each variable significantly differed between men (coded as 1) and women (coded as -1). $^{\dagger} p < .06$. $^* p < .05$. $^{**} p < .01$.

Relationship Satisfaction was assessed using the Kansas Marital Satisfaction Scale (KMSS; Schumm et al., 1986). Three items ("How satisfied are you with your partner?", "How satisfied are you with your relationship with your partner?", and "How satisfied are you with your marriage?"; 1 = not at all satisfied, 7 = extremely satisfied) were averaged so that higher scores represented greater satisfaction.⁶

Dominance. Finally, enabling us to distinguish the targeted power processes within relationships from more general interpersonal dominance, participants completed an adapted version of the Ambitious-Dominant Interpersonal Dimension developed by Wiggins (1979). Participants rated the degree to which eight items described themselves, including "Dominant," "Forceful," "Domineering," "Self-assured," "Assertive," "Self-confident," "Firm," and "Un-self-conscious" (1 = not at all, 7 = very much so). Items were averaged so that higher scores represented greater dominance.

Results

Hostile sexism and relationship power. Table 11 displays correlations across variables for men (above diagonal) and women (below diagonal). Replicating Studies 1 and 2, men's (and not women's) hostile sexism was associated with lower perceived power and greater aggression. As expected, men's (and not women's) hostile sexism was also associated with a greater desire for relationship power. A key goal of Study 3 was to test whether the links between hostile sexism and perceived power occurred independently of any potential associations between hostile sexism and greater desire for power (see Figure 1). Thus, we ran dyadic regression analyses as in Study 2 testing the links between hostile sexism (grand-mean centered) and perceptions of relationship power, controlling for desire for relationship power, and vice versa. As shown in Table 12, hostile sexism was independently associated with lower perceptions of relationship power for men, but not women, and the gender difference was significant (see Table 12, "Predicting Perceived Relationship Power"). Concomitant analyses revealed that men's hostile sexism was also independently associated with a greater desire for relationship power, women's hostile sexism was associated with a lower desire for relationship power, and this gender difference was significant (see Table 12, "Predicting Desire for Relationship Power").

Hostile sexism, lower perceived relationship power, and selfreported aggression. We then tested which of the two alternative power variables—lower perceived power versus greater desire for power-were associated with aggression toward relationship partners (see Figure 1). Mimicking the analytic strategy used in Studies 1 and 2, we ran two nested models examining the links between sexism, power, and aggression. First, we tested the direct effects between hostile sexism and self-reported aggression controlling for benevolent sexism (grand-mean centered). As shown in Table 13 (Model 1), men's stronger endorsement of hostile sexism was marginally associated with greater aggression when controlling for benevolent sexism. Second, to test the unique indirect effects between hostile sexism and aggression via the two alternative power variables (see Figure 1), we added both perceptions of relationship power and desire for relationship power (grandmean centered) into the model. As shown in Table 13 (Model 2), only men's lower relationship power, and not men's greater desire for power, was significantly associated with greater aggression toward partners.

Table 14 presents tests of the indirect effects linking the significant associations between hostile sexism and power in Table 12, with the associations between power and aggression

⁶ Study 3 assessed marital satisfaction using a different scale than the measure of relationship satisfaction used in Studies 1, 2, and 4. Of the two measures of satisfaction assessed in Study 3, the Kansas Marital Satisfaction Scale (KMSS; Schumm et al., 1986) was the most conceptually similar to the measure used in Studies 1, 2, and 4 and, thus, we report analyses with the KMSS in the article. However, the results and conclusions were the same when using the Quality Marriage Index (Norton, 1983) in the analyses controlling for marital satisfaction.

Table 11
Correlations Across Measures (Study 3)

Measures	1	2	3	4	5	6	7	8	9
1. Hostile sexism	.15*	.38**	21*	.22*	.23*	14	.11	.02	.03
2. Benevolent sexism	.48**	.28**	13	.07	.06	.05	08	20*	06
3. Perceived relationship power	09	25**	.06	.15	33**	.29**	19	09	.22*
4. Desire for relationship power	13	.07	.08	.02	.04	19*	08	21*	.14
5. Aggression	.13	.24**	18*	.18*	.38**	23*	.19*	01	04
6. Relationship satisfaction	.06	16	.44**	16	34**	.33**	12	03	03
7. Attachment anxiety	.01	02	09	.02	.36**	11	03	.42**	28**
8. Attachment avoidance	.07	.02	18	09	.18	28**	.42**	.16*	12
9. Interpersonal dominance	03	.09	.07	.12	06	06	13	09	09

Note. Correlations for men are above the diagonal. Correlations for women are below the diagonal. Bold correlations represent correlations across husbands and wives.

controlling for sexism shown in Table 13. Although the association between perceived power and aggression did not differ by gender, the overall pathway shown in the top of Figure 1 was only significant for men. Men's (but not women's) hostile sexism was associated with lower relationship power (see Table 12, Study 3), and lower power in turn was associated with aggression controlling for hostile sexism and desire for power (see Model 2, Table 13). Accordingly, as shown in Table 14, the confidence intervals for the indirect effects revealed that the only significant indirect effect between hostile sexism, the competing power variables, and aggression (see Figure 1) occurred for men's hostile sexism → perceived relationship power → aggression. This process did not occur for women, and desire

for power did not play a mediating role between men's hostile sexism and aggression.

Alternative explanations and control analyses.

Benevolent sexism. As shown in Tables 11, 12, and 13, men's benevolent sexism was not associated with perceived power, desire for power, or aggression revealing that hostile sexism is uniquely associated with men's perceptions of power and associated aggressive responses toward intimate partners. However, as in Study 2, women's benevolent sexism was associated with lower perceived power (but see Footnote 5).

Aggression. As in Studies 1 and 2, we reran the models assessing the link between sexist attitudes and perceived power controlling for individuals' and partners' aggression. In Study 3,

Table 12

The Independent Associations Between Hostile Sexism and Perceived Relationship Power Versus Desire for Relationship Power (Studies 3 and 4)

	Men							Gender diff.				
Predictors	95% CI					95% CI						
	B	Low	High	t	r	В	Low	High	t	r	t	r
Study 3												
Predicting perceived relationship power												
Hostile sexism	20	37	03	-2.33*	21	.04	13	.21	.48	.04	-1.98*	13
Benevolent sexism	05	22	.13	52	05	23	40	06	-2.65**	24	1.49	.10
Desire for relationship power	.24	.02	.45	2.21*	.20	.13	10	.37	1.16	.11	.64	.04
Predicting desire for relationship power												
Hostile sexism	.19	.05	.34	2.67**	.24	14	27	01	-2.07^{*}	19	3.37**	.22
Benevolent sexism	01	16	.14	10	01	.12	01	.26	1.78	.16	-1.28	09
Perceived relationship power	.17	.02	.33	2.19*	.20	.08	06	.23	1.15	.11	.82	.05
Study 4												
Predicting perceived relationship power												
Hostile sexism	31	41	20	-5.65**	37	08	19	.03	-1.39	09	-2.89**	13
Benevolent sexism	.05	07	.17	.82	.05	.04	08	.16	.68	.04	.11	.00
Desire for relationship power	.42	.28	.56	5.75**	.37	.38	.24	.53	5.32**	.30	.33	.01
Predicting desire for relationship power												
Hostile sexism	.22	.12	.31	4.30**	.30	10	18	01	-2.26**	14	4.75**	.22
Benevolent sexism	.03	08	.13	.45	.03	.05	04	.15	1.16	.07	41	02
Perceived relationship power	.34	.22	.45	5.75**	.38	.23	.14	.31	5.32**	.29	1.49	.06

Note. CI = confidence interval. Gender diff. coefficients whether the effects significantly differed across men (coded as 1) and women (coded as -1). Predicted effects for men are shown in bold. Effect sizes r for Study 3 were computed using Rosenthal and Rosnow's (2007) formula: $r = \sqrt{(t^2/t^2 + df)}$. Effect sizes r for Study 4 are the standardized beta coefficients.

* p < .05. ** p < .01.

^{*} p < .05. ** p < .01.

Table 13

The Effects of Hostile Sexism, Perceived Relationship Power Versus Desire for Relationship Power, and Aggression (Studies 3 and 4)

		Men						Women					
		95%	6 CI				959	6 CI					
Predictors	В	Low	High	t	r	B	Low	High	t	r	t	r	
Study 3													
Model 1													
Hostile sexism	.08	00	.17	1.91^{\dagger}	.17	.05	04	.14	.98	.09	.54	.04	
Benevolent sexism	02	11	.07	35	03	.06	03	.16	1.33	.12	-1.25	09	
Model 2													
Hostile sexism	.06	03	.15	1.38	.13	.05	05	.15	1.06	.10	.13	.01	
Benevolent sexism	02	11	.07	49	05	.05	05	.15	1.09	.10	-1.17	08	
Perceived relationship power	15	24	06	-3.19**	29	05	15	.06	90	08	-1.46	10	
Desire for relationship power	.03	18	.14	.52	.05	.12	.01	.26	1.89	.17	-1.12	08	
Study 4													
Model 1													
Hostile sexism	.22	.12	.32	4.39**	.29	.20	.10	.29	4.12**	.24	.38	.01	
Benevolent sexism	03	14	.09	44	03	.04	07	.14	.48	.03	79	03	
Model 2													
Hostile sexism	.15	.04	.25	2.76**	.19	.17	.08	.25	3.86**	.22	27	01	
Benevolent sexism	01	12	.10	18	01	.05	04	.14	1.13	.06	87	04	
Perceived relationship power	26	39	14	-4.09**	28	40	49	31	-8.93**	46	1.77	.08	
Desire for relationship power	.07	08	.21	.91	.06	.17	.05	.28	2.84**	16	-1.09	05	

Note. CI = confidence interval. Model 1 tests the direct effects between hostile sexism and aggression. Model 2 tests the effects between perceived versus desired relationship power and aggression accounting for sexist attitudes. The indirect effects in Table 14 link the associations between hostile sexism and perceived versus desired power shown in Table 12 with the associations between perceived versus desired relationship power and aggression controlling for sexism shown here in Model 2. Gender diff. coefficients test whether the effects significantly differed across men (coded as 1) and women (coded as -1). Predicted effects for men are shown in bold. Effect sizes r for Study 3 were computed using Rosenthal and Rosnow's (2007) formula: $r = \sqrt{(r^2/t^2 + df)}$. Effect sizes r for Study 4 are the standardized beta coefficients.

† p = .059. * p < .05. ** p < .05. ** p < .05.

the significant association between men's hostile sexism and perceived power fell below .05 significance when controlling for men's own aggression (B = -.14, 95% CI [-.30, .03], t = -1.62, p = .11, r = -.15). However, this was not the case in any of the other three studies. A meta-analysis of the link between men's hostile sexism and perceived power controlling for aggression

across studies supported that the association was reliable even with this control (t=-6.12, p<.001, 95% CI [-.35, -.19], r=-.27). The association between men's hostile sexism and perceived power was not altered when controlling for female partners' reported aggression over the past year (B=-.18, 95% CI [-.35, -.01], t=-2.14, p=.04, t=-.20).

Table 14
Indirect Effects Between Men's Hostile Sexism, Lower Perceived Relationship Power Versus Greater Desire for Relationship Power, and Aggression (Studies 3 and 4)

		95% confidence interval			
Indirect effect tested	Indirect effect	Lower limit	Upper limit		
Study 3					
Perceived relationship power as mediator					
Men's hostile sexism \rightarrow perceived relationship power \rightarrow self-reported aggression	.030	.003	.067		
Women's hostile sexism → perceived relationship power → self-reported aggression	002	018	.010		
Desire for relationship power as mediator					
Men's hostile sexism \rightarrow desire for relationship power \rightarrow self-reported aggression	.006	016	.031		
Women's hostile sexism → desire for relationship power → self-reported aggression	017	048	.002		
Study 4					
Perceived relationship power as mediator					
Men's hostile sexism \rightarrow perceived relationship power \rightarrow self-reported aggression	.081	.037	.133		
Women's hostile sexism → perceived relationship power → self-reported aggression	.031	013	.077		
Desire for relationship power as mediator					
Men's hostile sexism \rightarrow desire for relationship power \rightarrow self-reported aggression	.014	016	.048		
Women's hostile sexism \rightarrow desire for relationship power \rightarrow self-reported aggression	016	037	001		

Note. Tables 12 and 13 present the estimates for the associations between variables indicated by →. Predicted effects for men are shown in bold. Asymmetric confidence intervals (CIs) were calculated following Mackinnon, Fritz, Williams, and Lockwood (2007). Confidence intervals shown in bold do not overlap "0".

Relationship satisfaction and insecurity. As in Studies 1 and 2, rerunning the models controlling for individuals' own and their partners' relationship satisfaction or attachment insecurity also did not reduce the associations between men's hostile sexism, perceived relationship power, and aggression (see Table 7).

Interpersonal dominance. Finally, we wanted to show that the effects were specific to sexist attitudes and power in the relationship rather than a symptom of more general interpersonal dominance. As shown in Table 11, interpersonal dominance was not associated with men's hostile sexism but was associated with men's greater perceived relationship power and greater aggression. Nonetheless, controlling for interpersonal dominance did not change any of the effects described above. To illustrate, Table 15 (see Study 3) presents the effect of perceived power on men's hostile sexism (Path A), self-reported aggression on perceived power (Path B), and the indirect effect between men's hostile sexism, lower perceived relationship power and aggression (see right hand column) controlling for general interpersonal dominance. The effects were unaltered.

Study 4

Study 4 was a preregistered replication (see osf.io/kjc4e) of the associations between hostile sexism, perceived power, and relationship aggression shown in Studies 1-3, and the alternative associations between hostile sexism, desire for power and aggression examined in Study 3. We collected the same questionnaire measures of the focal variables as in Study 3 in a large online sample using Amazon's Mechanical Turk (MTurk). We then conducted the same analyses outlined in Study 3 differentiating the pathway between hostile sexism, perceived power, and relationship aggression (see top of Figure 1) from the alternative, potentially opposing, pathway between hostile sexism, desire for power, and relationship aggression (see bottom of Figure 1). We also collected additional measures to rule out the possibility that the predicted associations arise from more general interpersonal dominance, desires for power over women, and propensity for violence.

Method

Participants. We estimated an effect size of r=.20 for men's hostile sexism and perceived power based on our prior studies, but wanted to ensure we had enough power to detect potentially smaller differences across men and women (see Tables 11 and 12). Thus, we aimed to collect data from 200 women and 200 men involved in committed heterosexual relationships via MTurk. We stopped collection the day we reached our target sample size. The final sample included 207 men and 299 women (total N=506). Males ages ranged from 20–75 (M=39.73, SD=11.33 years), and females ages ranged from 20–70 (M=38.39, SD=10.05 years). Couples were in relatively serious relationships (68% married, 17% cohabiting, 5% serious, and 10% steady) of an average length of 10.48 years (SD=9.08). Participants were compensated US\$1.00. See OSM for further details.

Procedure and materials. The study description included answering questions on "relationship experiences and beliefs, including how people think, feel and behave in their intimate relationships." An initial demographic page identifying participants' relationship status screened for study eligibility. Respondents identifying as single were directed to a separate study on "partner preferences and ideals." Before variable construction and data analyses, 8 responses were removed because respondents completed the survey in the prespecified time believed necessary to accurately complete measures (5 min). We also excluded 50 participants involved in same-sex relationships because the sexist attitudes we are investigating specifically relate to heterosexual gender roles (see Glick & Fiske, 1996).

Participants completed the following questionnaires. All measures were averaged across scale items. Table 10 presents descriptive and reliability statistics.

Sexist attitudes, relationship power, and desire for relationship power. Participants completed the same measures as in Study 3, although items referring to "marriage" or "spouse" were altered to "relationship" or "partner" to index all types of relationships (e.g., dating, cohabiting, and married).

Table 15
Primary Associations Between Men's Hostile Sexism, Lower Perceived Relationship Power, and Aggression Controlling for Interpersonal Dominance, Desire for Power Over Women, and Propensity for Violence (Studies 3 and 4)

	Men's HS \rightarrow Perceived Power (Path A)					Perceived Power \rightarrow Aggression (Path B)					Indirect effect		
		95% CI				95% CI					Indirect	Lower	Upper
Predictors	B	Low	High	t	r	B	Low	High	t	r	effect	limit	limit
Study 3													
Primary associations	20	37	03	-2.33**	21	15	24	06	-3.19**	29	.030	.003	.067
Controlling for interpersonal dominance	20	37	03	-2.40**	22	16	25	06	-3.13**	28	.030	.004	.067
Study 4													
Primary associations	31	41	20	-5.65**	37	26	39	14	-4.09**	28	.081	.037	.134
Controlling for interpersonal dominance	30	42	19	-5.10**	34	26	38	14	-4.20**	28	.078	.035	.130
Controlling for desire for power over women	24	40	09	-3.15**	21	25	37	12	-3.91**	27	.060	.018	.116
Controlling for propensity for violence	29	40	19	-5.37**	35	25	38	13	-3.92**	27	.074	.033	.126

Note. Effect sizes r for Study 3 were computed using Rosenthal and Rosnow's (2007) formula: $r = \sqrt{(t^2/t^2 + df)}$. Effect sizes r for Study 4 are the standardized beta coefficients. Primary associations for Path A are shown in Table 12, primary associations for Path B are shown in Table 13. Asymmetric confidence intervals (CIs) were calculated following Mackinnon, Fritz, Williams, and Lockwood (2007).

* p < .05. ** p < .01.

Relationship aggression. Participants completed the same measures as in Study 3, but we also included two items that were used in Study 1 to assess daily aggression ("acted in a way that could be hurtful to your partner," "been critical or unpleasant toward your partner"). The results and conclusions were the same when excluding these two items.

Relationship satisfaction. Participants completed the same scale as in Studies 1 and 2 to assess relationship satisfaction. We were unable to collect an assessment of partners' relationship satisfaction because individuals and not couples completed the measures. In addition, we did not assess attachment insecurity because of length considerations.

Dominance, power over women, and violence. To rule out the possibility that the predicted associations were because of a more general orientation toward dominance and violence, we also assessed and controlled for three different types of dominance that may be linked to men's endorsement of hostile sexism. Participants completed an adapted version of the Conformity to Masculine Norms Inventory (CMNI) by rating 22 items developed by Mahalik et al. (2003). We selected the most relevant categories of dominance norms assessed by the CMNI. Four items assessed dominance (e.g., "I should be in charge"), five items assessed power over women (e.g., "Men should not have power over women," reverse-scored), and four items assessed violence (e.g., "Sometimes violent action is necessary"). Participants rated their agreement with each item (1 = strongly disagree, 7 = stronglyagree) and items were averaged so that higher scores represented greater dominance, desire for power over women, and propensity for violence.7

Results

Replicating Studies 1–3, men's (and not women's) hostile sexism was associated with lower perceived relationship power, greater desire for relationship power, and greater aggression (see Table 16). Greater perceived power was also associated with a greater desire for power. As in Study 3, we tested whether the associations between hostile sexism, perceived power, and aggression (top pathway in Figure 1) were independent of the alternative associations between hostile sexism, desire for power, and aggression (bottom pathway in Figure 1), and whether the associations differed across men and women.

Hostile sexism and relationship power. We first regressed perceived relationship power on hostile sexism, benevolent sexism, desire for relationship power (all grand-mean centered), gender, and all interaction effects of gender (gender coded – 1 women, 1 men). Mimicking the presentation of Studies 1–3, Table 12 presents the effects decomposed for men and women and the final column presents the tests of the gender differences. Replicating Studies 1–3, hostile sexism was associated with lower perceptions of relationship power for men, but not women, and this gender difference was significant (see Table 12, "Predicting Perceived Relationship Power"). Also replicating Study 3, concomitant analyses predicting desire for relationship power revealed that hostile sexism was independently associated with greater desire for power for men, lower desire for power for women, and this gender

difference was significant (see Table 12, "Predicting Desire for Relationship Power").

Hostile sexism, lower perceived relationship power, and self-reported aggression. As in Study 3, we ran two nested models to examine the associations between sexist attitudes with aggression (Model 1), and then the additional, independent effects of the two competing power variables on aggression (Model 2; see Table 13, Study 4). The first model including hostile and benevolent sexism as predictors of aggression illustrated that men's, but not women's, hostile sexism significantly predicted greater aggression. Replicating Study 3, the second model including perceived power and desire for power (and all gender interactions) revealed that lower perceived power, but not greater desire for power, predicted greater aggression over and above the effects of sexist attitudes (see Table 13).

Table 14 presents tests of the indirect effects linking the significant associations between hostile sexism and power (shown in Table 12) with the associations between power and aggression controlling for sexism (shown in Table 13). As in Studies 1–3, only men's hostile sexism predicted lower perceived relationship power (see Table 12) and, thus, the indirect effect testing men's hostile sexism → perceived relationship power → aggression was only significant for men, and not women (see Table 14). Moreover, as in Study 3, given men's desire for power did not independently predict self-reported aggression (see Table 13), the indirect effect linking hostile sexism to aggression via desire for power was not significant for men (or women; see Table 14).

Alternative explanations and control analyses.

Benevolent sexism. As shown in Table 12 and 13, men's (or women's) benevolent sexism was not significantly associated with perceived power, desire for power, or aggression. Thus, as in Studies 1–3, the effects were unique to men's hostile sexism.

Aggression. As in Studies 1 and 2, the link between sexist attitudes and perceived power controlling for individuals' aggression was unaltered when controlling for men's own aggression over the past year (B = -.24, 95% CI [-.35, -.13], t = -4.39, p < .001, r = -.27).

Relationship satisfaction and insecurity. As in Studies 1–3, rerunning the models controlling for individuals' own relationship satisfaction did not reduce the associations between men's hostile sexism, perceived relationship power, and aggression (see Table 7).

Violence. Finally, the results were robust when controlling for general dominance, desire for power, and violence. As displayed in Table 16, men's hostile sexism was associated with greater interpersonal dominance and desire for power over women, and men's greater interpersonal dominance, desire for power over women, and propensity for violence, were all positively associated with self-reported aggression over the past year. Nonetheless, rerunning the analyses controlling for each of these variables did not alter the primary associations. As shown in Table 15, the focal effects remained strong and significant providing further evidence of the

We also controlled for the remaining two sub-factors ("Self-Reliance" and "Status") of the Conformity to Masculine Norms Inventory (CMNI; Mahalik et al., 2003), which did not alter the effects.

Table 16
Correlations Across Measures (Study 4)

Measures	1	2	3	4	5	6	7	8	9
1. Hostile sexism	_	.30**	29**	.20**	.30**	28**	.44**	.74**	.12
2. Benevolent sexism	.47**	_	02	.11	.06	.07	.14	.28**	13
3. Perceived relationship power	11	.00	_	.30**	34**	.65**	00	26**	.12
4. Desire for relationship power	14*	.01	.31**	_	.02	.16*	.45**	.14*	.06
5. Aggression	.28**	.17**	45**	03	_	31**	.35**	.36**	.16*
6. Relationship satisfaction	03	.07	.69**	.16**	30		11	27^{**}	13
7. Interpersonal dominance	.09	.16**	08	.35**	.36**	09	_	.40**	.31**
8. Desire for power over women	.64**	.49**	10	24**	.22**	00	00	_	.17*
9. Propensity for violence	.11	04	.12*	.05	.29**	07	.23**	.08	_

Note. Correlations for men are above the diagonal. Correlations for women are below the diagonal. $^*p < .05. ^{**}p < .01.$

unique links between hostile sexism, perceived power and aggression within relationships.

General Discussion

A key theoretical assumption for why men's hostile sexism promotes aggression toward women is that hostile sexism involves protecting men's power. The current research is the first to specify how hostile sexism relates to experiences of power in intimate relationships and examine whether these experiences of power help to explain why men's hostile sexism predicts aggression toward intimate partners. Four studies illustrated that men who more strongly endorsed hostile sexism perceived themselves to have lower relationship power, which in turn predicted greater aggression toward female partners (see upper pathway in Figure 1). The associations between hostile sexism, perceived power, and aggression replicated across self and partner reported aggression during couples' daily lives (Study 1), observer-rated aggressive communication exhibited during couples' video-recorded conflict interactions (Study 2), and self-reported aggression over the past year (Studies 3 and 4). Moreover, dyadic analyses demonstrated that these lower perceptions of power were biased; men who more strongly endorsed hostile sexism underestimated the power they had in their relationships when compared with the power their partners reported they had in the relationship (Studies 1 and 2). In addition, contrasts with desire for power (see lower pathway in Figure 1) revealed that perceptions of lower relationship power played a stronger role than greater desires for relationship power in the aggression associated with men's hostile sexism (Studies 3 and 4). Finally, additional analyses ruled out alternative explanations that the associations between hostile sexism, perceived power, and aggression were the result of relationship satisfaction, attachment insecurity, or interpersonal dominance. Next, we consider how these novel results demonstrate key theoretical principles regarding the role interdependence plays in the concerns central to hostile sexism, and advance understanding of the role of power in explaining the expression of sexism and enactment of aggression.

The Importance of an Interdependence Perspective: Lower Perceived Power Informs the Association Between Hostile Sexism and Aggression

Ambivalent Sexism Theory (Glick & Fiske, 1996) revolutionized understanding of gender-related prejudice by highlighting

how intergroup competition clashes with interpersonal cooperation between men and women. Hostile sexism has traditionally been understood to reflect the competitive intergroup motive to protect men's advantaged societal position by threatening and derogating women who challenge men's social power (Glick et al., 1997; Glick & Fiske, 1996, 2001). However, gender relations are unique precisely because competition for social power at the intergroup level cannot be separated from the need for cooperation at the interpersonal level (Hammond & Overall, 2017). Indeed, the difficulty in protecting men's power while desiring interpersonal cooperation in intimate relationships is reflected in the content of hostile sexism, including fears that women will use men's relational dependence to control and manipulate them (Glick & Fiske, 1996). These fears arise because the interdependence within intimate relationships restricts and constrains power and, thus, intimate contexts are a key context in which the power concerns central to hostile sexism will affect important gender-related perceptions and behavior.

The current studies demonstrate the importance of an interdependence perspective in understanding how hostile sexism is likely to affect experiences of power. We proposed that men who endorse hostile sexism should more keenly feel the constraints to power that arise from mutual dependence and influence in intimate relationships. Accordingly, men who more strongly endorsed hostile sexism perceived they had lower relationship power, and these perceptions of lower power were biased. Female partners did not agree that men who endorsed hostile sexism had lower power and dyadic bias analyses illustrated that men who endorsed hostile sexism underestimated the relationship power they held compared to their partner reports. By illustrating that men who more strongly endorse hostile sexism perceive lower power in the context of the same interdependent realities as reported by the partner, the results support that such perceptions of low power arise from a preoccupation and vigilance regarding losing power rather than actual differences in relationship power.

Men's hostile sexism was also associated with a greater desire for relationship power irrespective of the level of power men possessed in the relationship, supporting that hostile sexism incorporates a desire for dominance that should infiltrate interpersonal contexts. However, the robust associations between hostile sexism and lower perceived power were independent of greater desires for power. Moreover, perceiving lower power rather than desiring greater power predicted greater aggression toward partners and, thus, lower perceived power played a more central explanatory role in the links between hostile sexism and aggression. Thus, rather than trying to obtain more and more power, the unique associations between hostile sexism, perceived power and aggression that replicated across studies provide evidence that aggression occurs in response to protecting and restoring a loss in perceived power, which as our novel results show, may not reflect reality.

The links between hostile sexism, lower perceived power and aggression occurred for men, and not women, providing additional support that concerns about protecting power underlie these power and aggression dynamics. Women who endorse hostile sexism also support men's social power and dominance (Chen et al., 2009; Glick & Fiske, 1996) and, therefore, should not be concerned with protecting their power nor should they feel more restricted by the power constraints inherent in intimate relationships. Instead, women who more strongly endorsed hostile sexism reported desiring less power in their relationships (Studies 1 and 2) but, given desired power did not independently predict aggression, these lower desires did not have implications for aggression toward partners.

Men's benevolent sexism also did not predict lower perceived power or greater desired power, providing an additional demonstration that concerns for protecting power clash with the interdependence needed within intimate relationships. Ambivalent Sexism Theory (Glick & Fiske, 1996) proposes that the challenge of interdependence is why benevolent sexism emerges. Rather than contesting women's relationship power, benevolent sexism acknowledges men's dependence on women for the fulfillment of relational needs, which helps bolster heterosexual cooperation and intimacy (Glick & Fiske, 1996). Thus, the mutual dependence and influence that constrains power in relationships should be less threatening for men who endorse benevolent compared to hostile sexism (see Footnote 5).

Implications for Understanding Broader Effects of Hostile Sexism

The aggressive responses we assessed exacerbate conflict, undermine problem-solving and relationship satisfaction, and risk relationship dissolution (Arriaga & Schkeryantz, 2015; Hammett, Karney, & Bradbury, 2018; Karney & Bradbury, 1995; Overall et al., 2011). Moreover, beyond detrimental effects on partners and relationships, the biased perceptions and resulting aggressive responses shown by men who endorse hostile sexism have important implications for understanding how relationship processes might reinforce and compound sexist attitudes. A critical consequence of biased perceptions is confirmation of perceivers' fears (Downey & Feldman, 1996; Murray et al., 2000). The unjustified lack of power experienced, and the relationship deterioration likely to arise from the dynamics demonstrated here, are likely to confirm and consolidate hostile beliefs about women. Thus, highlighting that interpersonal and societal evaluations of women are inseparable, sexist attitudes will alter the way interdependence and power is experienced, and the resulting relationship dynamics are likely to feedback and shape societal-level beliefs about men and women.

Furthermore, the same types of biased perceptions of power and aggression associated with hostile sexism in intimate relationships, and the associated detrimental outcomes, should emerge in other interdependent contexts. Men who endorse hostile sexism use

more assertive and aggressive dating strategies, which has been assumed to represent efforts to restrict women's agency to sustain authority and dominance (Hall & Canterberry, 2011). However, our results suggest that dating aggression may arise because men who endorse hostile sexism more keenly feel the loss of personal power that arises when desired outcomes depend on the reciprocal attraction of women. Unfortunately, biased perceptions of power and aggressive efforts to restore power within dating interactions may fuel dangerous and coercive mate strategies. As in established relationships, not only do these put women at risk, the defensive reactions by potential female partners will hinder men's ability to initiate desired relationships and thereby reinforce hostile beliefs that women are using men's dependence to take away their power and control. Examining these damaging and reinforcing processes is a valuable goal for future research.

These interdependence processes should also apply to nonintimate contexts. For example, in workplace contexts when men need to share powerful positions with women, men who more strongly endorse hostile sexism should feel that their personal power is more constrained and, thus, should respond in a more aggressive manner to protect and restore their power. However, perceived power may play a stronger role relative to desires for power in intimate relationships because intense motivations for interpersonal connection likely attenuate motivations for dominance. In workplace contexts, low affiliative motivations will not counteract motivations for dominance, which (unlike in the current studies) may predict the aggressive perceptions and motivations prior research has shown are associated with men's hostile sexism (Masser & Abrams, 2004; Rudman & Kilianski, 2000; Rudman, Moss-Racusin, Phelan, & Nauts, 2012). Consequently, the biased perceptions of power threats and subsequent aggression linked with men's hostile sexism may be magnified in nonintimate crosssex interactions.

Of importance, however, targeting the threat of interdependence within relationship contexts should be beneficial for reducing wider hostile attitudes toward women more generally. As the current results highlight, attitudes toward women as a group guide responses to specific female partners and the challenges of interdependence within intimate relationships may potentially compound hostile attitudes toward women in general. Yet, it is within intimate relationships that men who endorse hostile sexism may be most motivated to overcome their aggressive tendencies to fulfill relationship needs and goals. Specifying that these aggressive responses arise because of biased perceptions of low power offers valuable targets for interventions, such as enhancing awareness and understanding of dependence fears and power concerns, and developing more constructive ways to restore perceived power. Moreover, intervening within intimate relationships, where interdependence is likely to be the most threatening, may help reduce wider sexist attitudes (also see Overall & Hammond, 2018). Thus, in addition to efforts to change wider social structures and norms that support hostile sexism, a principal place to understand and reduce hostile sexism is within the threatening interdependent dynamics of intimate relationships.

Strengths, Caveats, and Future Directions

The associations between hostile sexism, lower perceived relationship power, and aggression replicated across four diverse sam-

ples and replicated across daily levels of psychological aggression, observations of aggressive communication during couples' interactions, and retrospective reports of verbal and physical aggression. Examining actual aggressive responses within specific relationships and interactions advances prior work assessing aggressive attitudes and behavioral motivations toward hypothetical women (see Glick et al., 1997; Rudman & Kilianski, 2000; Sibley & Wilson, 2004). Examining perceptions of power and aggression toward intimate partners as they naturally occur within couples' relationships is also critical because the interdependence couples face during daily and conflictual relationship interactions is precisely when having power matters the most, and when aggression will likely emerge to restore power (Overall et al., 2011, 2016). Moreover, showing that the self-reported aggression associated with men's hostile sexism and lower perceived power was also experienced by partners in daily life (Study 1) and evident to objective observers (Study 2) demonstrate that the greater aggression arising from men's hostile sexism and lower perceived power does not merely reflect a self-presentational strategy to bolster their sense of power by conveying a powerful image.

Despite the notable strengths of assessing perceived power and aggression occurring in couples' actual lives, these methods mean we inevitably relied on correlational data, which limits causal conclusions. A valuable experimental approach could involve exacerbating the challenge of interdependence to magnify biases in perceived power. In particular, the associations between hostile sexism, perceived power and aggression should be stronger in contexts when the perceived balance of dependence and influence are particularly unfavorable (also see Cross et al., 2017). Another informative experimental approach could involve down-regulating the threat of dependence by bolstering perceptions of partners' commitment or temporarily enhancing and assuring power (e.g., Case & Maner, 2014), which should help reduce the biased perception of power and aggressive responses shown in the current studies. Experimental studies might also provide insight into successful interventions by challenging biased perceptions of power and/or providing more constructive ways to restore power. Experimental approaches, along with longitudinal tracking of sexist attitudes and relationship power dynamics, would also allow a test of our proposition that the sexist attitudes, power, and aggression dynamics we have examined will reciprocally influence each other.

Future research could also provide further evidence of the novel perceptual biases demonstrated in the current studies by comparing discrepancies between perceived power and the power evident by third parties (see Goh, Rad, & Hall, 2017; e.g., of biased perceptions of nonintimate others' sexist attitudes). We tested whether men who endorsed hostile sexism had biased perceptions by comparing men's perceived relationship power to their female partners' reports of the power men had in relationships. This approach represents the principal method of assessing biased perceptions within relationships (see Fletcher & Kerr, 2010; West & Kenny, 2011), particularly when evaluations represent interpersonal processes most evident to partners (also see Overall, Fletcher, Simpson, & Fillo, 2015). Indeed, there are no established objective assessments of power in relationships and, given power rests in the dependence and influence occurring across partners, partners' reports will provide the greatest insight to levels of relationship power. Yet, perhaps female partners generally overestimated the

power males who endorsed hostile sexism had. The data do not support this possibility: Men's hostile sexism did not predict differences in partners' reports of power. Thus, the only consistent difference across levels of hostile sexism was men's perceptions of their own power, and these differences were meaningfully associated with differences in aggression across studies. However, replicating these biased perceptions using benchmarks across a range of third parties, such as reports from multiple colleagues in the workplace, would provide additional evidence of the pervasive biases in power we expect men who endorse hostile sexism to show in cross-gender relations.

Finally, future research should examine how these results generalize to other societal and relationship contexts. Although endorsement of sexist attitudes differs, the links between hostile sexism and partner aggression appear consistent across nations (Glick et al., 2002; Sakalli, 2001). However, the associations between hostile sexism, perceived power, and aggression may be more pronounced, and have more severe consequences, in less egalitarian societies where hostile sexism is more prevalent and there exists stronger support for enacting aggression to protect men's power (Archer, 2006). In addition, the association between sexism, power, and aggression may be greater in particularly threatening relationship contexts that align with the power-related concerns associated with hostile sexism, such as when female partners lack commitment or are unfaithful (see Cross et al., 2017; Glick & Fiske, 1996) or when potential mates reject initiation efforts. Nonetheless, the fact that these associations were evident across samples involving well-functioning couples living in egalitarian societies, and emerged across a variety of assessments measuring frequent forms of aggression within relationships, illustrates the relevance of hostile sexism and perceived power in the course of typical relationship life.

Conclusions

The current research advances the sexism, relationship, power, and aggression literatures by revealing how the interdependent reality of relationships clash with gender-based attitudes that depict relations between men and women as a competition for power. The results suggest that men who more strongly endorse hostile sexism possess biased perceptions that they lack power in relationships, and these biased perceptions of low power (rather than greater desires for power) help explain why men's hostile sexism predicts greater aggression toward intimate partners. The pattern between hostile sexism, lower perceptions of power and aggression are likely to arise across interdependent contexts and have a pervasive impact on interpersonal relationships between men and women.

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