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Subjectivity uncertainty theory of objectification: Compensating for uncertainty about how to positively relate to others by downplaying their subjective attributes

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ABSTRACT

Why do people sometimes view others as objects rather than complete persons? We propose that when people desire successful interactions with others, yet feel uncertain about their ability to navigate others' subjectivity, they downplay others' subjective attributes, focusing instead on their concrete attributes. This account suggests that objectification represents a response to uncertainty about one's ability to successfully interact with others distinct from: instrumentalizing others in response to power; dehumanizing others in response to threat; and simplifying others in response to general uncertainty. Supporting this account: When uncertainty about navigating women's subjectivity was salient, men showed increased sexual objectification to the extent that they desired successful interactions with women (Study 1) and were primed to view such interactions as self-esteem relevant (Study 2). In a workplace scenario, participants made uncertain about their managerial ability felt less confident about their ability to navigate employees' subjectivity and, consequently, role-objectified employees (Study 3).

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Introduction

Objectification refers to the tendency to think about and treat an individual more like an object or a commodity than a person. In the sexual realm, objectification occurs whenever people (typically women) are reduced to or treated as a body, body parts, or sexual functions, independent of the characteristics of their personality and experience (Bartky, 1990). Similarly, in the workplace, objectification occurs whenever workers are valued in terms of attributes that contribute to workplace goals rather than the qualities that make up the rest of their personality (Marx, 1867/1976).

Being objectified has negative consequences for the individual. For example, a large body of research shows that sexually objectifying experiences (e.g., having body parts leered at, encountering media that spotlights women's bodies) coax women into taking an external vantage point on their physical appearance, and this state of self-objectification generates shame, usurps mental energy, and contributes to depression, sexual dysfunction, and eating disorders (Moradi & Huang, 2008; Quinn, Chaudoir, & Kallen, 2011; Tiggemann, 2011). Also, when women are regarded narrowly in terms of their physical appearance, they are perceived more like an object: cold, incompetent, and without morality (Heflick & Goldenberg, 2009; Heflick, Goldenberg, Cooper, & Puvia, 2011).

Given these consequences, a scientific understanding of the factors that cause perceivers to objectify is critical. Relevant insights are provided by objectification theory, theoretical accounts of the psychology of social power, and perspectives on threat avoidance. In this article we introduce a novel theory that complements prior theorizing by delineating an unexamined mechanism underlying objectification. In brief, we posit that when people seek personal value from positive relations with others, but feel uncertain about their ability to navigate others' subjectivity, they may compensate for that uncertainty by downplaying other people's subjective attributes. We articulate this theory and specify how it builds on, but goes substantially beyond, prior theorizing. We use key points of theoretical contrast to derive novel hypotheses regarding antecedents, moderators, and mediators of objectification, and we test those hypotheses in three studies.

Prior theory and research on the causes of objectification

The majority of social psychological and sociological research on objectification examines women's self-objectification from the perspective of objectification theory (Fredrickson & Roberts, 1997). According to this theory, women in modern Westernized societies are socialized by popular culture to habitually view themselves from an external perspective, which emphasizes and appraises their sexual characteristics. This leads them to self-objectify, viewing and treating themselves as objects to be evaluated on the basis of sexualized physical characteristics.

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On this account, men objectify women for the same reason that women self-objectify: they are socialized into a cultural milieu that values women primarily for their physical appearance and teaches them that it is normative to view women's sexual parts or functions as capable of representing women. This account is supported by correlational and experimental evidence that men's objectification of women is positively associated with their endorsement of cultural beauty standards and their exposure to sexualizing media and sexualized female targets (Gurung & Chrouser, 2007; Kistler & Lee, 2010; Peter & Valkenburg, 2007; Swami et al., 2010; Ward, Merriwether, & Caruthers, 2006).

The role of instrumentality

For objectification theory, the cultural milieu that teaches men to objectify women is not an arbitrary set of values and norms; rather, it stems from a broader sexist ideology that entitles men to view women as objects that they can use for their personal gain, particularly for the purposes of attaining sexual pleasure, or maintaining their advantaged social and economic status (Bartky, 1990). At a more fundamental level, objectification theory simply posits that, as an outcome of these sexist ideologies or power goals, culture entrains men and women to view women as objects rather than actors; as things to which actions are done, rather than “doers” themselves (Berger, 1972; Fredrickson & Roberts, 1997). In this way, objectification theory traces sexual objectification to the perception of others' *instrumentality*: viewing others as tools for one's own (or at least someone else's) purposes and thus ignoring subjective attributes of targets that are irrelevant to those purposes (Nussbaum, 1999).

Research into the psychology of power brings into stronger relief the link between instrumentality and objectification, both within and outside the sexual realm. Previous research has established that feelings of power motivate personal goal pursuit (Keltner, Gruenfeld, & Anderson, 2003). According to Gruenfeld, Inesi, Magee, and Galinsky (2008), this increased motivation to pursue goals encourages a more instrumental treatment of others, whereby those others are viewed as mere tools or obstacles between the empowered individual and his or her goals. Gruenfeld et al. (2008) support this claim in a series of studies showing that experimentally increased feelings of power caused participants to think of targets in terms of their usefulness for goal pursuit rather than in terms that recognize their subjectivity.

Threat accounts

Whereas instrumentality accounts explain objectification as the result of empowered individuals viewing others as means to achieving personal goals, other theoretical accounts posit that objectification serves to protect the perceiver against threatening cognitions. One such account holds that objectification is a means by which people derogate disliked or otherwise threatening targets. By denying that targets possess the psychological characteristics that would make them fully human, such as a unique point of view, perceivers attempt to downgrade targets' moral worth. Consistent with this account, men who are high, but not low, in hostile sexism show decreased activation in the medial prefrontal cortex when thinking about sexualized female targets, but not non-sexualized female targets or male targets (Cikara, Eberhardt, & Fiske, 2011). This brain region is strongly associated with the capacity to see other people as subjects with their own point of view, suggesting that sexist men are less apt to recognize sexualized females as whole persons.

This account highlights the affinity between objectification and *infrahumanization* — denying individuals or groups psychological characteristics thought to constitute the uniquely “human essence” (Leyens et al., 2000). Relevant studies show that people disregard information implying that members of disliked outgroups experience the full range of human emotions (Demoulin et al., 2004) and avoid outgroup members who express themselves in terms of uniquely

human emotions (Vaes, Paladino, Castelli, Leyens, & Giovanazzi, 2003). Infrahumanization research suggests that objectification can result from perceivers' effort to derogate targets, independent of targets' perceived usefulness for achieving proximal goals.

A second threat account integrates objectification theory and terror management theory to posit that men's objectification of women stems from men's deeply rooted concerns with mortality (Goldenberg & Roberts, 2004, 2011). According to this view, men are uneasy about aspects of women's bodies because they threaten to make evident their own animal, and thus mortal, nature. Indeed, reminders of mortality heighten men's negative reactions to women who exemplify the creaturely nature of the body: women who are pregnant, menstruating, or breast-feeding (Cox, Goldenberg, Arndt, & Pyszczynski, 2007; Goldenberg & Roberts, 2011). Viewing women narrowly as idealized objects of beauty, femininity, or sexual appeal (and rejecting women who seem to fall short of those ideals) helps men to disguise the fact that we humans are animals and therefore mortal.

Although unique, these prior threat accounts share the notion that objectification represents a defensive response to threat. By reducing or eliminating targets' subjectivity and thus humanity, perceivers attempt to minimize the threat that targets pose to their perceived superiority, cultural worldview, or buffer against mortality concerns.

Subjectivity uncertainty theory

We introduce a novel theory of the causes of objectification meant to complement, rather than replace, the lines of theorizing just reviewed. Subjectivity uncertainty theory (SUT) synthesizes and formalizes Becker's (1964) and Dewey's (1958) analyses of interpersonal transactions, and takes as its starting point the proposition that people earn and maintain a feeling of self-esteem in large part by perceiving themselves as capable of positively relating to others. As a corollary, positively relating to others typically requires that individuals effectively navigate — that is, know, predict, and control — others' subjectivity, defined as their mental states (e.g., beliefs, goals, judgments) and idiosyncratic personality characteristics.

SUT's second proposition is that effectively navigating others' subjectivity is a difficult matter because others' mental states and personality characteristics are not directly observable (difficult to know), they are constantly shifting and occasionally contradictory (difficult to predict), and they are not always influenced by one's actions in desired ways (difficult to control). Focusing on these difficulties can increase perceivers' *subjectivity uncertainty* — that is, uncertainty about their ability to effectively navigate others' subjectivity and, ultimately, their ability to relate to others in ways that affirm their personal value.

SUT posits that objectification can serve as a strategy for compensating for subjectivity uncertainty. More specifically, perceivers can avoid the threat of subjectivity uncertainty by downplaying the subjective attributes perceived as difficult to navigate and focusing instead on others' concrete attributes that are perceived as relatively easier to navigate.

SUT stands to make three significant contributions to objectification theory and research. First, SUT offers a provocative explanation of objectification. Whereas it would seem that focusing perceivers on targets' subjectivity should make those targets difficult if not impossible to reduce to concrete attributes, SUT yields the hypothesis that this focus can arouse subjectivity uncertainty and thus trigger compensatory downplaying of targets' subjective attributes.¹

Second, because SUT posits a general mechanism underlying objectification, it stands to provide a unified explanation of objectification as

¹ This perspective suggests another counterintuitive possibility: Perceivers' desire to positively relate to others can, ironically, lead them to think about and treat others in a way that likely harms their interpersonal relations. We revisit this latter possibility in the *General Discussion*; for now we focus on testing whether perceivers use objectification to compensate for subjectivity uncertainty.

it manifests variously across different interpersonal contexts. With regard to causal antecedents, SUT allows us to predict that perceivers will objectify targets in any context where they desire to successfully relate to targets yet feel uncertainty about their ability to navigate targets' subjectivity. With regard to the type of objectification, SUT allows us to predict that perceivers under subjectivity uncertainty will focus on a range of concrete attributes seen as representing targets, including often-studied appearance-related attributes, but also occupational roles or quantitative indices of value (e.g., IQ, salary, number of scholarly publications). To illustrate SUT's broad explanatory scope, we designed the current studies to test SUT-derived hypotheses in the context of examining both sexual objectification (Studies 1 and 2) and workplace role objectification (Study 3).

A third advantage of SUT is that it yields novel hypotheses regarding the antecedents, moderators, and mediators of objectification that could not be easily derived from prior theorizing. To illustrate SUT's generativity, in the next section we compare SUT to prior theoretical accounts, using key points of contrast to formulate novel hypotheses.

Comparing SUT with instrumentality accounts

SUT stands apart from objectification theory because it posits a general mechanism underlying objectification both within and outside the sexual realm, and because it holds that objectification is not exclusively the result of men's indoctrination into a patriarchal worldview that fosters instrumental conceptions of women. In this way, SUT can be used to predict when both men and women will objectify targets independent of the targets' sex or the salience of sexualizing media and other agents of socialization.

SUT adds further dimensions to the posited role of instrumentality in objectification. SUT shares with objectification theory and power accounts the broad notion that perceivers often objectify others in order to facilitate the achievement of some desired goal. However, SUT uniquely emphasizes perceivers' motivation to secure personal value through effective interpersonal interaction, a goal that requires navigating others' subjective states. In this way, SUT uniquely explains why people can be threatened by uncertainty about their ability to navigate other's subjectivity and respond with efforts to reduce that uncertainty. On the basis of SUT, then, we hypothesize that increasing subjectivity uncertainty will cause perceivers to downplay targets' subjective attributes. Prior instrumentality accounts would likely hypothesize the opposite effect: when perceivers are focused on uncertainties surrounding goal pursuit (rather than feeling empowered to pursue their goals), they will feel less liberated to treat others as mere tools for their personal gain.

Comparing SUT with threat accounts

SUT and the threat accounts discussed above share the broad notion that objectification can serve as a strategy for alleviating a psychological threat by denying targets' subjectivity. However, SUT posits a unique threat – namely, felt uncertainty about one's own efficacy – and therefore uniquely explains why objectification may occur in the absence of negative attitudes toward targets or the salience of mortality. Based on this contrast, we predicted that objectification in response to subjectivity uncertainty would not be associated with a negative global attitude toward targets, and that this effect would remain statistically significant when controlling for any negative global attitude. We tested this prediction in all the current studies.

Our account further distinguishes objectification as a hostile or derogatory response to targets and objectification as a compensatory response to subjectivity uncertainty. Specifically, SUT yields the hypothesis that the *more* people desire positive relations with others, yet feel uncertain about their ability to effectively understand and control people at a subjective level, the more likely they are to compensate for that uncertainty

by downplaying targets' subjective attributes and focusing instead on concrete attributes.

We assessed this hypothesis in two studies designed to test whether men's desire for positive relations with women moderates the effect of subjectivity uncertainty on men's tendency to view women in terms of the characteristics of their physical appearance rather than their subjective attributes. In Study 1 we predicted that when men were primed with uncertainty (versus certainty) about how to interact successfully with women, their dispositional motivation to seek positive relations with women would predict their objectification of women. We also predicted that this effect would be driven by men's motivation to relate positively to women in particular, and not by their desire to relate positively to other people more generally. To test this, we measured men's motivation to relate positively to other men, and we tested whether it predicted objectification of women when uncertainty about successfully interacting with women was salient (we predicted no such interaction).

Study 2 builds on Study 1 by experimentally manipulating men's perceptions of the relevance of positive relations with women to their self-esteem. We predicted that focusing men on the role of women's subjectivity in heterosexual relationships would increase men's objectification of women, particularly when men were primed with the relevance of maintaining positive relations with women for their self-esteem. This prediction would not easily follow from accounts that view objectification as a hostile or derogatory response to women.

Comparing SUT with uncertainty management theory

SUT complements not only prior theorizing on objectification, but also work on the psychology of uncertainty. According to uncertainty management theory (McGregor, Zanna, Holmes, & Spencer, 2001; van den Bos, 2009), uncertainty about important aspects of the self is an aversive state that people are motivated to reduce by means of affirming definite and reliable conceptions of the world and oneself, usually operationalized as increased conviction in one's ideology and defense of cultural norms. We are unaware of any formal attempts to apply UMT to explain objectification. However, there is evidence that people who are dispositionally high in preference for clear knowledge, or under conditions (e.g., time pressure) known to increase preference for clear knowledge, are more likely to deploy simple, stereotyped representations of others (Kruglanski & Freund, 1983; Neuberg & Newsom, 1993; Van Knippenberg, Dijksterhaus, & Vermeulen, 1999). Extrapolating from this work, it is plausible that the objectification effects hypothesized by SUT are not specifically caused by subjectivity uncertainty, but are the result of a compensatory preference for simple representations of others in response to general uncertainty.

We will not address this issue by attempting to draw a firm conceptual distinction between the outcomes of objectification and preference for simple representations of others. We assume that most instances of simplification, including stereotyping, will resemble objectification insofar as perceivers focus on easily observable characteristics of targets more so than on attributes of their private, dynamic, and idiosyncratic subjectivity. Likewise, in most cases objectified targets are perceived in simpler (versus more complex) terms.

Instead, we compare these theoretical perspectives at the level of antecedents, moderators, and mediating variables. First, as discussed earlier, SUT yields the hypothesis that priming subjectivity uncertainty will increase target objectification particularly when perceivers desire to positively relate with targets. This hypothesis does not follow from UMT. Therefore, if this hypothesis is supported by the results of Studies 1 and 2, we will have increased confidence that the mechanism proposed by SUT to underlie objectification is unique from the uncertainty avoidance mechanism proposed by UMT.

Furthermore, SUT and UMT differ in their portrayal of uncertainty. UMT offers a very general portrayal according to which uncertainty about virtually any self-relevant event is aversive and elicits compensatory efforts to bolster certainty, even in unrelated domains. Studies inspired by this perspective show, in fact, that arousing uncertainty about the self increases conviction on unrelated social issues (McGregor et al., 2001). From the perspective of UMT, arousing subjectivity uncertainty may produce defensive reactions not because there is something uniquely challenging about the prospect of navigating targets' subjectivity, but rather because targets' subjectivity is one of many stimuli that arouse uncertainty.

To assess the merits of this alternative explanation, current Study 1 tests the hypothesis that men will show increased objectification of women particularly in response to salient uncertainty about navigating women's subjectivity, and not when primed with uncertainty about navigating other people's subjectivity in general. To test this hypothesis, we included a comparison condition in which men were primed with the difficulties of interacting with other men at a subjective level. We did not expect men in this condition to show increased objectification of women.

Study 2 provides an additional test of the alternative possibility that our hypothesized effects simply represent a response to uncertainty about others in general. We included in this study a comparison condition in which men were primed to think about how women's subjectivity influences their relations with other women. If objectification simply reflects a general strategy for simplifying representations of targets – that is, in the absence of any motive to positively relate to targets – then men in this condition should show increased objectification. If, however, our present account is correct in positing that men's objectification of women is specifically in response to the perception that women's subjectivity influences their (men's) ability to positively relate to women, then we should observe no increase in objectification among men primed with uncertainty surrounding female–female relations. If the results of Studies 1 and 2 support predictions, they would suggest that objectification does not simply reflect a general strategy for minimizing uncertainty, but rather serves as a means of adjusting representations of targets specifically when those targets' subjectivity is perceived as difficult to manage and as undermining one's own prospect of positively relating to those targets.

SUT and UMT can be further distinguished at the level of mediating variables. Based on UMT, we would predict that priming uncertainty about important aspects of the self will heighten people's concern about their ability to effectively navigate all aspects of the relevant performance, and this generalized concern will predict objectification, presumably as a means of simplifying target representations. In contrast, SUT yields more specific predictions: priming uncertainty about one's ability to positively relate to targets will heighten people's concern specifically with their ability to effectively navigate targets' subjectivity, and not with their ability to navigate subjectivity-unrelated aspects of the performance; furthermore, this concern with navigating subjectivity should mediate the effect of priming ability uncertainty on objectification, whereas concern with one's ability to handle subjectivity-unrelated aspects of the performance should not play a mediating role.

We tested these predictions in Study 3. We manipulated participants' uncertainty that, as managers in a workplace, they would be able to positively relate with their employees. We then measured their concern that they will be able to effectively navigate their employees' subjective attributes as well as subjectivity-unrelated (albeit no less complex) aspects of the manager position. Finally, we measured the extent to which participants preferred to view employees only in terms of their role in the workplace. If priming uncertainty about successfully interacting with others threatens perceived personal efficacy in general, then both subjectivity-related and subjectivity-unrelated concerns should mediate the effect of priming ability uncertainty on

role objectification. If, however, participants' uncertainty about their ability to successfully interact with others increases role objectification indirectly by heightening concern specifically with one's ability to navigate others' subjectivity, as SUT posits, then only that concern should play a mediating role.

Study 1

Study 1 provides an initial test of our hypothesis that priming subjectivity uncertainty – again, uncertainty about one's ability to navigate others' subjectivity – increases objectification. The context for this study is men's objectification of women in terms of their physical appearance.

Study 1 was also designed to provide evidence that the mechanism proposed by SUT to underlie objectification is psychologically distinct from the mechanisms proposed by other theoretical accounts. As discussed, prior threat accounts posit that objectification is a derogatory response to threatening targets. SUT posits, in contrast, then when people desire *positive* interpersonal interactions, yet are uncertain about how to navigate others' subjectivity, they compensate by downplaying others' subjective attributes. We therefore predicted that when men are primed with subjectivity uncertainty (versus certainty) about their relations with women, their dispositional desire to positively relate to women would predict their objectification of women. This prediction does not follow from prior threat accounts.

To assess the alternative possibility that this interaction is due to men's desire for positive interpersonal relations in general, rather than their desire to positively relate to the targets of subjectivity uncertainty in particular, as we hypothesize, we measured men's desire to positively relate to other men and tested whether it moderated the effect of priming subjectivity uncertainty on objectification of women (we expected it would not).

Comparing SUT with prior threat accounts yields distinct predictions at the level of outcome variables as well. If, as SUT claims, objectification in response to subjectivity uncertainty can occur independent of derogatory responses to threatening targets, then our predictor variables should not lead men to hold a more negative global attitude toward women.

Study 1 also tests diverging predictions based on the comparison of SUT to UMT. Based on SUT we hypothesize that objectification occurs specifically in response to subjectivity uncertainty, whereas UMT yields the hypothesis that the salience of uncertainty in general prompts perceivers to simplify their representations of targets. Therefore, we included a condition in which men were primed with uncertainty about their ability to navigate men's subjectivity. If the objectification of female targets in response to primed subjectivity uncertainty is merely a generalized reaction to uncertainty salience, then we would expect men to objectify women to the same extent in response to primed subjectivity uncertainty with relation to both women and other men. However, if our analysis is correct in characterizing men's objectification of women as a response to uncertainty about their ability to positively relate to women, then priming subjectivity uncertainty with relation to other men should not increase objectification of women.

Our approach to measuring objectification warrants separate mention. In the objectification theory literature, women's self-objectification and men's objectification of women are often measured with versions of Noll and Fredrickson's (1998) Self-Objectification Questionnaire (SOQ), which assesses the prioritizing of certain physical attributes (appearance-related attributes; e.g., "sex appeal") over others (competence-related attributes; e.g., "physical coordination"). The design of this measure is broadly consistent with our conception of objectification as a relative prioritization of physical, sexual characteristics. However, based on our analysis we sought to measure more specifically men's tendency to downplay women's subjective attributes. The SOQ is

suboptimal for this purpose because it assesses the perceived relative importance of different attributes that are all ultimately physical. Therefore, as described in more detail in the *Method* section, we modified the SOQ to assess men's ranking of women's appearance-related attributes and their subjective attributes.

Method

A total of 57 heterosexual men enrolled in undergraduate psychology courses participated as partial fulfillment of a course requirement. Of these, 4 failed to complete all measures. The data from these participants were excluded from our analysis, leaving a final sample of 53. Participants were randomly assigned to one of three conditions: *uncertainty-with-women* vs. *certainty-with-women* vs. *uncertainty-with-men*. Dispositional motivation to positively relate to women and men constituted our moderating variables of interest, and objectification and liking of women served as our dependent measures of interest.

Participants completed an online survey distributed through Qualtrics, a service for online data collection. As a cover story, the materials were described as a survey of people's perceptions of gender dynamics in social life.

Motivation to positively relate to women and men

In an initial questionnaire purported to assess personality, and embedded in neutral filler questions, was a single item assessing participants' motivation to positively relate to women: "I am personally interested in having positive interactions with the women I meet" (1 = *strongly disagree*, 7 = *strongly agree*). Actual scores ranged from 4 to 7 ($M_{grand} = 6.32$, $SD = .67$). Although actual scores were all above the scale's midpoint, the distribution was not significantly skewed (skewness statistic = $-.49$, SE of skewness = $.33$). Participants also responded to a single item assessing their motivation to positively relate to other men: "I am personally interested in having positive interactions with the other men I meet." Actual scores ranged from 3 to 7 ($M_{grand} = 5.57$, $SD = 1.20$, skewness statistic = $-.54$, SE skewness = $.33$). Not surprisingly, scores on the two items (i.e., positively relate to women/men) were positively and significantly correlated ($r = .37$, $n = 53$, $p < .01$). Nevertheless, we predicted that desire to positively relate to women would moderate the effect of the subjectivity uncertainty prime, whereas desire to positively relate to other men would not.

Subjectivity uncertainty manipulation

Participants were then randomly assigned to complete one of three short essay questions, ostensibly intended to gauge how they interact with people of either the same or opposite gender. The essay prompt to which participants responded constituted our subjectivity uncertainty manipulation. In the *uncertainty-with-women* condition, participants were instructed to recall and write about "a time in the past when you approached a woman you were attracted to, but weren't sure how to interact with" and to "describe some uncertainties you have about how to interact successfully with women." In the *certainty-with-women* condition, participants were instructed to recall and write about "a time in the past when you approached a woman you were attracted to, and you felt very confident interacting with her" and to "describe some certainties you have about how to interact successfully with women." Finally, in the *uncertainty-with-men* condition, participants were instructed to recall and write about "a time in the past when you approached another man you thought seemed friendly, but you weren't sure how to interact with him" and to "describe some uncertainties you have about how to interact successfully with other men."

Objectification and liking measures

Participants then completed a modified version of the SOQ (Noll & Fredrickson, 1998). This questionnaire asked participants to rank the relative importance of different attributes in determining how they think about women in general. Specifically, participants were asked to rank the relative importance of six appearance-related attributes (e.g., "sex appeal") used in the original SOQ and six new subjective attributes (skills, education, religious beliefs, hobbies, career interests, music preferences). Participants ranked each attribute on lines, with the top line indicating "most impact" on how they think about women in general, and the bottom line indicating "least impact." Scores were computed by summing the ranks of the appearance-related and subjective attributes separately and computing a difference score. Possible scores ranged from -36 to 36 , with higher scores indicating greater objectification in the sense of relative downplaying of subjective attributes versus appearance-related attributes.

Participants also answered a single item assessing their global attitude towards women: "Most women are likeable" (1 = *strongly disagree*, 7 = *strongly agree*). Actual scores ranged from 2 to 7 and were normally distributed ($M_{grand} = 5.04$, $SD = 1.10$, skewness statistic = $-.62$, SE skewness = $.33$).

Results

Objectification

We predicted that when uncertainty about interacting with women was salient, men's dispositional motivation to positively relate to women would predict objectification. We recoded the three subjectivity uncertainty conditions into two dummy-coded variables representing, with reference to the *uncertainty-with-women* condition, the *certainty-with-women* comparison and the *uncertainty-with-men* comparison. The interaction between dispositional motivation to positively relate to women and subjectivity uncertainty condition predicting objectification was tested as the change in R^2 for the step of the analysis including two interaction terms: dispositional motivation \times the first dummy code (*uncertainty-with-women* vs. *certainty-with-women* conditions); dispositional motivation \times the second dummy code (*uncertainty-with-women* vs. *uncertainty-with-men* conditions). On Step 1 of the analysis, we entered dispositional motivation scores (continuous and centered) and the two aforementioned dummy-coded variables. In Step 2 we entered the aforementioned terms representing the dispositional motivation \times subjectivity uncertainty condition interaction.

This analysis returned no main effects for the terms representing dispositional motivation or subjectivity uncertainty condition ($t_s < .40$). The inclusion of the interaction terms in Step 2 contributed significantly to our ability to account for variance in objectification, $\Delta R^2 = .14$, $F(2, 47) = 3.94$, $p = .03$. We then separately analyzed the interaction terms. The interaction term representing dispositional motivation \times *uncertainty-with-women* vs. *certainty-with-women* conditions was significant, $\beta = -.61$, $SE = 7.14$, $t(47) = 2.57$, $p = .01$. We plotted this interaction in Fig. 1 at one standard deviation above and below the centered motivation mean (Aiken & West, 1991). Simple slopes analyses indicated that, as predicted, dispositional motivation to positively relate to women was positively and significantly associated with objectification in the *uncertainty-with-women* condition, $\beta = .71$, $SE = 5.80$, $t(49) = 2.42$, $p = .02$. In contrast, dispositional motivation did not predict objectification in the *certainty-with-women* condition, $\beta = -.22$, $SE = 4.29$, $t(49) = 1.00$, $p = .32$.

The interaction term representing dispositional motivation \times *uncertainty-with-women* vs. *uncertainty-with-men* conditions was also significant, $\beta = -.55$, $SE = 7.48$, $t(47) = 2.50$, $p = .02$. Dispositional motivation to positively relate to women did not predict objectification in the *uncertainty-with-men* condition, $\beta = -.24$, $SE = 4.94$, $t(49) = .94$, $p = .35$.

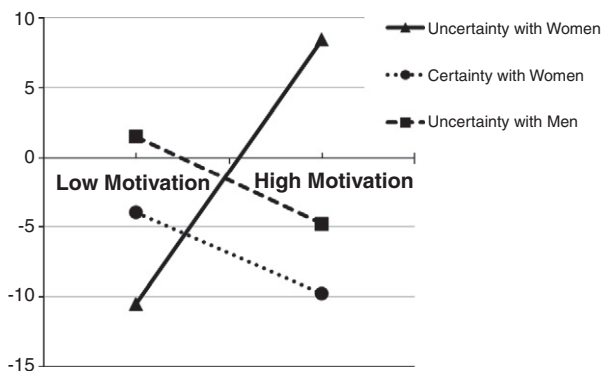


Fig. 1. Men's objectification of women as a function of subjectivity uncertainty condition and dispositional motivation to positively relate to women (1 SD \pm centered mean; Study 1). Note: Scale ranged from -36 to 36 , with higher scores indicating greater objectification of women.

Also as predicted, among participants high in dispositional motivation to relate positively to women (1 SD above the centered motivation mean), the predicted mean of objectification in the uncertainty-with-women condition was significantly higher compared to the predicted means in the certainty-with-women condition ($\beta = -.64$, $SE = 7.92$, $t(27) = 2.35$, $p = .03$) and the uncertainty-with-men condition ($\beta = -.53$, $SE = 6.17$, $t(32) = 2.21$, $p = .04$).

Comparison of the predicted means at 1 SD below the centered mean indicated that, among participants low in dispositional motivation to relate positively to women, objectification in the uncertainty-with-women condition was statistically equivalent to objectification in the certainty-with-women condition ($\beta = .29$, $SE = 7.34$, $t(27) = 1.16$, $p = .26$), and marginally lower than objectification in the uncertainty-with-men condition ($\beta = .54$, $SE = 7.15$, $t(32) = 1.97$, $p = .06$).

Submitting objectification scores to a similar hierarchical regression analysis, but using dispositional motivation to positively relate to other men as the continuous predictor, revealed no significant effects on men's objectification of women (β s < $|.19|$, t s < 1.00 , p s $\geq .56$).

Liking

We submitted scores on the item "Most women are likeable" to the same hierarchical regression analysis. As expected, neither the main effects nor the interaction terms reached significance (β s < $|.33|$, t s < 1.44 , p s $\geq .16$). Furthermore, when controlling for self-reported attitude towards women, the addition of the interaction terms continued to significantly add to our ability to predict objectification ($\Delta R^2 = .13$, $F(2, 46) = 3.41$, $p = .04$), and the two interaction terms, simple slope for dispositional motivation to positively relate to women in the uncertainty-with-women condition, and the comparison of predicted means at high levels of motivation all remained statistically significant (p s < $.02$).

Discussion

When men focused on their uncertainty about how to interact successfully with women, their dispositional motivation to positively relate to women predicted their objectification of women. By contrast, men's dispositional motivation to positively relate to women did not predict objectification when they focused on their certainty about how to interact successfully with women, or their uncertainty about how to interact successfully with other men. These results support the hypothesis, uniquely derived from SUT, that people objectify targets in part because they are motivated to positively relate to targets but are uncertain about their ability to navigate aspects of targets' subjectivity; as a result, they downplay targets' subjective attributes and focus instead on their concrete attributes.

The results of Study 1 are not likely to be due to a general motivation to relate positively to others, since men's self-reported motivation to positively relate to other men did not interact with subjectivity uncertainty condition to predict objectification of women. Also, these results are not likely to be due to a desire to reduce general uncertainty, since men led to focus on their uncertainty about how to interact successfully with men did not respond by objectifying women more.

We observed no interactive effects of our predictor variables on men's global attitude towards women. It is therefore unlikely that the salience of uncertainty about how to successfully interact with women made salient how women can be cold or rejecting toward men. Moreover, the predicted effects of subjectivity uncertainty remained significant even after controlling for men's global attitude towards women. This suggests that the observed increase in objectification is not merely an aggressive reaction to a perceived threat to participants' self-esteem.

Although the results of Study 1 provide support for SUT's account of objectification, they are limited by the fact that we measured, rather than manipulated, men's motivation to seek positive relations with women, thus leaving open the possibility that our results were due to some other individual difference variable, such as endorsement of masculinity norms, which may place a greater emphasis on interactions with women. To address this possibility, in Study 2 we sought more direct evidence for the role played by motivation to interact successfully with targets by manipulating whether men view positive relations with women to be crucial to the maintenance of their self-esteem.

Study 2

Study 2 provided a further test of whether men objectify women more after focusing on uncertainty about how to navigate women's subjectivity, and furthermore tested whether this effect is moderated by priming men with the relevance of positive male–female relations for their self-esteem. In this way we built on Study 1, where we measured, rather than manipulated, men's motivation to seek positive interactions with women. To manipulate self-esteem relevance, we had some men read an essay that primed the importance of maintaining positive relations with women in determining self-esteem, while other men read a parallel essay that primed the importance of maintaining positive male–male friendships for self-esteem. We predicted that subjectivity uncertainty would increase objectification only when men were primed with the importance of relating to women for their self-esteem. This prediction does not follow from prior threat accounts or UMT.

To manipulate subjectivity uncertainty, we had men read an article portraying women in one of three ways: difficult to navigate in their relations with men; simple to navigate in their relations with men; and difficult to navigate in their relations with other women. We included the last condition to test whether the hypothesized effect was due specifically to focusing on how women's subjectivity complicates their relations with men, as we claim, and not on women's subjectivity in general. In this way Study 2 provides an additional crucial test of SUT and UMT, since the latter yields the prediction that the salience of uncertain aspects of targets, regardless of the relevance of those aspects to the self, would prompt compensatory objectification as a means of simplifying one's representation of targets.

Rather than using a modified SOQ scale as in Study 1, we measured objectification by asking participants to directly indicate how much they think about women in terms of their physical characteristics relative to their personalities. This allowed us to provide converging evidence for our broad hypothesis using a simpler, more straightforward measure of objectification. To further test our claim that objectification does not represent a hostile response to women, we again measured men's global attitude towards women and examined any possible

effects of our independent variables on global attitude (we expected none).

Method

A total of 87 heterosexual men enrolled in undergraduate psychology courses participated as partial fulfillment of a course requirement. Of these, 3 failed to complete all measures and 5 were non-native English speakers who reported difficulty understanding the materials. The data from these 8 participants were excluded from our analysis, leaving a final N of 79. Participants were randomly assigned to one of six conditions in a 2 (self-esteem relevance of male–female relations: high vs. low) \times 3 (subjectivity uncertainty: male–female relations uncertainty vs. male–female relations certainty vs. female–female relations uncertainty) between-subjects factorial design, with objectification and liking of women serving as our dependent measures of interest.

In private cubicles, participants completed all materials on a computer using a program designed with MediaLab software (Jarvis, 2004). As a cover story, the materials were described as a survey of people's perceptions of gender dynamics in social life.

Self-esteem relevance manipulation

The self-esteem relevance manipulation followed measures of basic demographic information. Participants were instructed to read an essay, ostensibly excerpted from a credible online news magazine, on the topic of men's lifestyles. In the *high self-esteem relevance condition*, the essay described how positive relationships with women are an essential factor in determining men's self-esteem. The essay argued that men who are able to form and maintain successful relationships with women are happier, more self-confident, and are more satisfied with their lives. In the *low self-esteem relevance condition*, the essay emphasized the crucial importance of maintaining positive relationships with other men for men's self-esteem. This essay argued that it is men's ability to form and maintain successful friendships with other men that determines their level of happiness, confidence, and life satisfaction. The essays used in both conditions were fabricated by the experimenters, matched in length and style, and equally emphasized the importance of interpersonal relationships for men's overall self-esteem. Efforts were taken to enhance the essays' apparent legitimacy, and no participants expressed suspicions about the materials.

As a manipulation check to assess the effectiveness of the self-esteem relevance manipulation, we asked participants to rate their level of agreement (on a 7-point scale) with the following statement: "Being able to form and maintain relationships with women is important for my self-esteem."

Subjectivity uncertainty manipulation

Participants were then asked to read an article, ostensibly taken from a popular women's magazine, about the personality characteristics and social behavior of women in general. Which article participants read constituted our subjectivity uncertainty manipulation. In the *male–female relations uncertainty condition*, the article stressed the difficulty faced by men in their interpersonal interactions with women as a result of the latter's uncertain subjectivity. Specifically, the author of the article (an ostensible female expert on women's social behavior) argued that women's relationship expectations for men are constantly varying, and that it is difficult for men to determine what women expect of them at any given moment. By contrast, in the *male–female relations certainty condition*, the essay claimed that women's expectations in their relationships with men are clearly defined and can be met in a straightforward manner. Finally, in the *female–female relations uncertainty condition*, the article highlighted

the difficulty women have negotiating each other's personalities. The ostensible author pointed out that women are not very clear about what they expect from other women in social relationships, and that these elusive expectations are variable.

As a manipulation check on subjectivity uncertainty manipulation, we asked participants to rate their level of agreement (on a 7-point scale) with the following statement: "I am personally uncertain about how to interact successfully with women."

Objectification and liking measures

Next, participants completed a questionnaire assessing their views on women in general. Embedded in several filler questions was a face-valid, single-item measure of objectification: "When you think about women, how much do you think about them in terms of their...?" (1 = *personalities*, 4 = *both equally*, 7 = *physical characteristics*).

Next was a single item assessing men's global attitude toward women. Whereas in Study 1 we phrased the question in terms of women's likeability, in this study the item more directly assessed men's personal attitude towards women: "How much do you like most women?" (1 = *not at all*, 7 = *very much*). Actual scores ranged from 3 to 7 and were normally distributed ($M_{grand} = 5.29$, $SD = 1.10$, skewness statistic = $-.68$, SE skewness = $.36$).

Results

Manipulations checks

To test the effectiveness of the self-esteem relevance manipulation, we submitted scores in response to the item "Being able to form and maintain relationships with women is important for my self-esteem" to a 2 (self-esteem relevance) \times 3 (subjectivity uncertainty) ANOVA. This analysis returned only the predicted main effect for self-esteem relevance, $F(1, 73) = 4.92$, $p = .03$ (for all other effects, $F_s < 1.41$, $p_s \geq .25$). Men who read an essay emphasizing the importance of male–female relations agreed more strongly with this statement ($M = 6.21$, $SD = .73$) compared to men who read an essay emphasizing the importance of male–male relations ($M = 5.75$, $SD = 1.06$).

To test the effectiveness of the subjectivity uncertainty manipulation, we submitted scores in response to the item "I am personally uncertain about how to interact successfully with women" to the same two-way ANOVA. This analysis returned only the predicted main effect for subjectivity uncertainty, $F(2, 73) = 3.20$, $p = .047$ (for all other effects, $F_s < 1.00$, $p_s \geq .72$). Post-hoc tests revealed that men who read an article portraying male–female relations as uncertain agreed more strongly with this statement ($M = 4.23$, $SD = 1.98$) compared to men who read an article portraying male–female relations as certain ($M = 3.00$, $SD = 1.83$; $p = .02$) and men who read an article portraying female–female relations as uncertain ($M = 3.18$, $SD = 1.78$; $p = .048$).

Objectification

Our primary prediction was that focusing on the uncertainty of male–female relations would increase objectification specifically when men are primed with the relevance of maintaining positive male–female relations for their self-esteem. To test this we submitted scores on the objectification item to the same two-way ANOVA. We observed a significant two-way interaction, $F(2, 73) = 3.47$, $p = .04$, $\eta^2 = .09$ (for both main effects, $F < 1.08$, $p \geq .36$). Relevant means are graphically depicted in Fig. 2. Pair-wise comparisons (Fisher's LSD) revealed that, as predicted, among men primed to view male–female relationships as high in self-esteem-relevance, those primed with uncertainty in male–female relations agreed more strongly that they thought about women in terms of their physical characteristics relative to their personalities ($M = 4.92$, $SD = .95$) compared to men primed with certainty in male–female relations ($M = 4.00$, $SD = .71$;

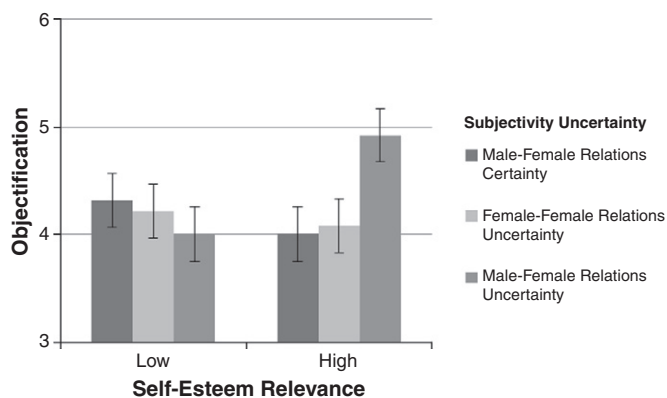


Fig. 2. Men's objectification of women as a function of subjectivity uncertainty condition and self-esteem relevance of male–female relations (Study 2). Note: Scale ranged from 1 (think about women in terms of their personalities) to 7 (think about women in terms of their physical characteristics).

$p = .01$) and men primed with uncertainty in female–female relations ($M = 4.08$, $SD = .76$; $p = .02$).

We then performed pair-wise comparisons for self-esteem relevance within each level of subjectivity uncertainty. As expected, among men focused on uncertainty in male–female relations, those primed with the self-esteem relevance of male–female relations reported higher levels of objectification ($M = 4.92$, $SD = .95$) compared to men primed with the self-esteem relevance of male–male relations ($M = 4.00$, $SD = .82$; $p = .01$). In contrast, there was no effect of self-esteem relevance among men focused on certainty in male–female relations or men focused on uncertainty in female–female relations ($ps \geq .35$).

Liking

We submitted scores on the item “How much do you like most women?” to the same two-way ANOVA. As expected, neither the main effects nor the interaction reached significance ($Fs < 1.25$, $ps > .29$). Furthermore, the predicted interaction effect on objectification, and the corresponding pairwise comparisons, remained significant ($ps < .03$) when controlling for self-reported attitude towards women.

Discussion

Priming men with uncertainty about navigating women's subjectivity resulted in higher objectification of women, but only if men had been previously primed with the relevance of maintaining positive male–female relations to their self-esteem. These findings support SUT's account of objectification because they show that focusing men on subjectivity uncertainty with relation to women increases objectification in a seemingly counterintuitive way: when men were confronted with information that made women's subjectivity salient, men reduced their representation of women to their physical characteristics.

Moderation by self-esteem relevance is critical because it shows that men in our study were not simply responding to subjectivity uncertainty salience with a generalized preference for simplified conceptions of others. Rather, men objectified women only when subjectivity uncertainty was juxtaposed with the relevance of positive relations with the target for maintaining one's self-esteem. Also, it is unlikely that men in this study objectified simply in response to the salience of uncertain aspects of targets; if that were the case, we should have seen men objectify women in response to the salience of uncertainty surrounding women's relations with other women.

As in Study 1, we observed no interactive effects of our independent variables on men's global attitude towards women. Again, this

makes it unlikely that the observed increase in objectification reflects men's aggressive reactions to a perceived self-esteem threat from women. Rather, we think that the results support SUT's broad hypothesis that objectification can result from increasing perceivers' uncertainty about their ability to navigate the subjectivity of targets to whom they wish to positively relate.

Study 3

While initial tests of SUT were conducted in the context of sexual objectification, the theory is broad enough to encompass other forms of objectification. Recall that prior research shows that imagining oneself in a position of power led participants to view others narrowly in terms of their usefulness, neglecting their personal qualities (Gruenfeld et al., 2008). In the context of a workplace, this process may lead managers to view subordinates narrowly in terms of their roles in the workplace, presumably because they focus on employees as instrumental for goal pursuit.

SUT posits an alternative mechanism underlying role objectification that operates independently from power-induced perceptions of others' instrumentality. Being a successful manager largely depends on one's ability to have effective interpersonal interactions with employees, which can be complicated by aspects of employees' subjectivity (e.g., their idiosyncratic personality traits and values). If managers feel uncertain about their ability to successfully navigate employees' subjectivity, they may compensate by downplaying employees' subjective attributes and focus instead on employees' roles in the workplace.

Based on this account, we predicted in Study 3 that priming participants with uncertainty about their ability to successfully manage employees would lead them to objectify their hypothetical employees in terms of their roles. Participants completed what was purported to be a well-validated test of managerial aptitude. Depending on condition, participants received feedback indicating that the likelihood of their ability to successfully manage others in a real workplace environment was uncertain or not. Then, in an apparently unrelated part of the study, participants were asked how much they preferred to think about hypothetical employees in terms of their occupational roles while discounting or avoiding aspects of their subjectivity.

Beyond extending SUT to role objectification, Study 3 aimed to distinguish the mechanism posited by SUT from the mechanism posited by UMT. As discussed more fully in the Introduction, UMT posits that uncertainty poses a global threat to perceived self-efficacy. From this perspective, we would expect that priming participants with uncertainty about their ability to succeed as a manager would increase their concern with their ability to navigate aspects of employees' subjectivity as well as aspects of the workplace that are unrelated to employees' subjectivity. Also, because UMT maintains that the threat of uncertainty is met with non-specific efforts to seek simple structure, it yields the prediction that increased concern with both subjective and non-subjective aspects of the workplace will predict role objectification.

In contrast, SUT posits that when people are uncertain about their ability to successfully interact with others, they are primarily concerned about their ability to navigate others' subjective attributes, and it is this concern, rather than a concern about efficacy with regard to subjectivity-unrelated aspects of the environment, that drives compensatory objectification. To test these diverging predictions, we measured – after the uncertainty manipulation and before the objectification measure – participants' concern with their ability to effectively handle both employees' personalities and subjectivity-unrelated aspects of the workplace. Based on our analysis, we predicted that priming uncertainty about one's success as a manager would increase concerns about navigating subjective aspects of the manager–employee relation, but not subjectivity-unrelated aspects of the workplace (even those that seem equally complicated), and that this increase in subjectivity-related concern should, in turn,

mediate the effect of priming uncertainty on role objectification of employees.

Another goal of Study 3 was to test the practical implications of objectification in response to heightened uncertainty about navigating employees' subjectivity within a workplace environment. Specifically, we examined whether increased role objectification predicted punitiveness toward objectified targets. We investigated this possibility by presenting participants with a workplace scenario about an employee who deviated from company policy. Participants then reported the likelihood that they as managers would choose to fire the employee. Insofar as they value workers narrowly for their ability to promote workplace goals, participants should experience few reservations about terminating an employee who threatens control over the workplace. Therefore, we predicted that priming uncertainty about one's success as a manager would indirectly increase punitiveness via the increased objectification of employees.

As in Studies 1 and 2, we also measured the participants' attitude toward the deviant employee. If, as SUT claims, objectification in response to uncertainty is not a hostile or derogating response to targets, then our manipulation should have no influence on participants' liking of the deviant employee. Rather, willingness to fire the employee would theoretically stem from the perception that employees are merely the roles they fulfill and therefore are not useful when they deviate from that role. Likewise, in so far as this increased punitiveness as a function of increased objectification is not simply a form of derogation, this effect should remain when controlling for self-reported attitude toward the employee.

Method

A sample of 44 undergraduates (20 women) received course credit for participating in a purported study of personality in the workplace.² In private cubicles, participants completed all the study materials on computers using a program developed with MediaLab software (Jarvis, 2004).

Participants received computerized instructions that they would be assigned a position in a workplace scenario. Ostensibly at random, the computer assigned all participants to the manager position. Participants then received information describing the attributes of a successful manager. Specifically, participants read that successful managers are able to effectively interact with their employees in ways that facilitate positive manager–employee relations. To augment participants' ego-investment in being a successful manager, we also presented participants with a series of statistics emphasizing the many financial and personal benefits afforded to successful managers. Participants were instructed that, for the remainder of the study, they should answer questions from the perspective of a manager.

Ability uncertainty manipulation

All participants completed what was purported to be a well-validated and widely-used test of management aptitude. To convince participants that this test assessed their performance in an ego-relevant domain, we told them that scores on this test are a proven indicator of long-term managerial success. The test was fabricated by the experimenters and consisted of multiple questions in various formats (e.g., multiple choice, ranking) adapted from actual management and leadership scales. After completing the test, participants assigned to the *uncertainty condition* received feedback indicating that their ability to effectively manage others in a real-world work environment was uncertain. Specifically, the feedback stated: "Based on your pattern of responses, the test is unable to calculate your

likelihood of future success as a manager...These results indicate that your chance of succeeding as a manager in a real-world work environment is uncertain." Participants assigned to the *control condition* received no feedback.

To ensure that participants receiving the uncertainty feedback were less certain of their ability to succeed as a manager, participants completed a single-item manipulation check: "How certain are you that you would succeed as a manager in a professional environment?" Participants made their responses on a 4-point scale (1 = *uncertain*, 4 = *completely certain*). To ensure that the effect of this feedback specifically increased participants' uncertainty about their ability without threatening their self-esteem, we also measured global self-esteem using Rosenberg's (1965) 10-item self-esteem scale (sample item: "I feel that I'm a person of worth, at least on an equal plane with others"). Responses were also made on a 4-point scale (1 = *strongly disagree*, 4 = *strongly agree*) and were averaged to form a composite self-esteem score ($\alpha = .90$).

Concerns with subjectivity-related and subjectivity-unrelated aspects of manager performance

Next, participants rated how concerned they were with two potential challenges to their ability to manage a professional workplace. Specifically, participants were asked "How concerned are you about your ability to manage each of the following potential workplace problems?" One challenge was labeled *employees' personality quirks*, the other *complicated tax laws*. Responses were made on a 7-point scale (1 = *not at all*, 7 = *very much*). In this way we assessed participants' concern with their ability to handle both subjectivity-related aspects of the workplace and aspects unrelated to employees' subjectivity.

Objectification measure

As an ostensible measure of management style, participants were then asked to rate their agreement with five statements that comprised our measure of role objectification: "Employees should keep their personal lives out of the workplace; Employees should focus only on the tasks that they are assigned to complete; I don't believe employees should have a say in how their work is done; I think of employees in terms of how useful they are for achieving the goals of the workplace; I value my employees to the extent that they accomplish the goals of the workplace." Responses were made on a 7-point scale (1 = *strongly disagree*, 7 = *strongly agree*). Responses across the five items showed adequate reliability ($\alpha = .70$) and were averaged to form a composite measure of role objectification.

Workplace scenario

Next participants were instructed to imagine how they, in their position as a manager, would respond to a particular workplace scenario. The scenario described an incident in which an employee was found to be violating company policy by adding his/her own personal touch to the company's products.

Liking

Participants were then presented with a single item assessing their global attitude toward the employee described in the scenario: "How much do you like this employee?" (1 = *dislike*, 7 = *like*). Actual scores ranged from 1 to 6 ($M_{grand} = 3.70$, $SD = 1.39$).

Punitiveness

Next, participants were presented with a single item assessing the likelihood that they would respond to the incident by choosing to "Replace the employee with someone who will follow company policy" (1 = *not likely at all*, 7 = *very likely*).

² In this study, we performed primary analyses including gender as a between-subjects variable. Because we observed no significant main effects or interactions involving gender, we omit gender from our reporting of the results to simplify presentation.

Results

Manipulation checks

Levene's test for heterogeneity of variance indicated that responses to our manipulation check item violated the homogeneity of variance assumption, $F(1, 42) = 4.63, p = .04$. Accordingly, we conducted Welch's alternative ANOVA procedure on manipulation check scores, which Tomarken and Serlin (1986) identify as the optimal procedure when the homogeneity of variance assumption is violated. This analysis revealed a significant omnibus effect, $F(1, 35.092) = 6.26, p = .01$. As predicted, participants in the uncertainty condition reported feeling less certain about their ability to be successful as a manager in a professional work environment ($M = 1.63, SD = 1.13$) compared to participants in the control condition ($M = 2.35, SD = .73$).

Also as expected, submitting self-esteem scores to a one-way ANOVA returned no effect of condition ($F < 1, p > .69$). Furthermore, the effect of the manipulation on the uncertainty manipulation check item remained statistically significant ($p = .02$) after controlling for variation in self-esteem scores, suggesting that the manipulation specifically increased uncertainty about one's managerial ability.

Concerns with subjectivity-related and subjectivity-unrelated aspects of manager performance

Submitting scores on the measure of concern over navigating subjectivity-related aspects of manager performance to a one-way ANOVA (ability uncertainty condition vs. control) revealed a significant effect of condition, $F(1, 42) = 4.19, p = .04, \eta^2 = .10$, such that participants in the ability uncertainty condition reported greater concern with their ability to deal effectively with employees' personalities ($M = 4.19, SD = 1.41$) compared to participants in the control condition ($M = 3.39, SD = 1.24$). By contrast, submitting scores on the measure of concern with one's ability to deal effectively with subjectivity-unrelated aspects of manager performance (i.e., complicated tax laws) returned no effect of condition ($p > .60$).

Although participants on average (collapsing across condition) were equally concerned with subjectivity-related aspects of manager performance ($M = 3.77, SD = 1.34$) and subjectivity-unrelated aspects of manager performance ($M = 4.23, SD = 1.39; p = .09$), the ability uncertainty prime affected only concern with navigating subjectivity-related aspects of manager performance, which is consistent with our SUT-derived predictions.

Objectification and mediation analysis

Submitting scores on the role objectification measure to a one-way ANOVA also revealed a significant effect of condition, $F(1, 42) = 5.65, p = .02, \eta^2 = .13$, such that participants in the ability uncertainty condition role-objectified employees ($M = 4.70, SD = .82$) more than participants in the control condition ($M = 4.14, SD = .61$).

We then conducted a mediation analysis to test our prediction that the effect of the ability uncertainty condition on objectification occurred through the indirect effect of increased concern over navigating employee subjectivity. Using the bootstrapping procedure and corresponding SPSS macro of Preacher and Hayes (2008), we regressed role objectification scores onto ability uncertainty condition (coded: ability uncertainty = 1/control = 0), with subjectivity-related concern entered as the proposed mediator. Five-thousand bootstrap resamples were performed. As predicted, the 95% confidence interval obtained for the indirect effect of condition on role objectification scores through the mediator of subjectivity-related concern did not contain zero (.003, .59). See Fig. 3 for a graphical depiction of the mediation model. These results are consistent with our mediational hypothesis that the increase in role objectification in the ability uncertainty (vs. control) condition occurs through a

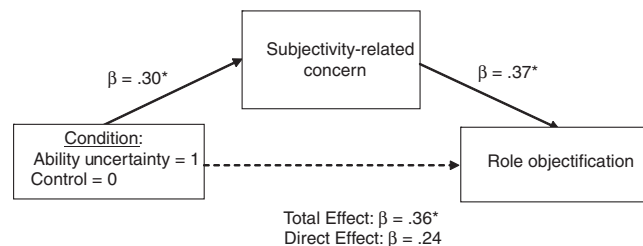


Fig. 3. Indirect effect of ability uncertainty condition on role objectification through self-reported concern over one's ability to navigate subjectivity-related aspects of manager performance (Study 3). Note: All path coefficients represent standardized regression weights. *Significant at $p < .05$.

corresponding increase in concern with one's ability to effectively navigate employees' subjectivity.

We then tested our prediction that participants' concern with their ability to deal effectively with subjectivity-unrelated aspects of manager performance would not mediate the effect of the ability uncertainty manipulation on role objectification. We conducted a similar mediation analysis using subjectivity-unrelated concern as the proposed mediator. The 95% confidence interval obtained for the indirect effect did contain zero ($-.03, .37$). Therefore, we are confident at $\alpha = .05$ that the effect of the ability uncertainty salience prime on role objectification was mediated by the corresponding increase in subjectivity-related concern, and not by an increase in subjectivity-unrelated concern.

Liking

Submitting scores on the liking measure to a one-way ANOVA revealed that liking for the disruptive employee in the ability uncertainty condition ($M = 3.99, SD = 1.29$) did not differ from reported liking in the control condition ($M = 3.39, SD = 1.50; p = .21$).

Punitiveness and mediation analysis

Submitting scores on the punitiveness measure to a one-way ANOVA revealed a significant effect of condition, $F(1, 42) = 4.65, p = .03, \eta^2 = .11$, such that participants in the ability uncertainty condition were more likely to say that they would fire an employee who was putting his/her own personal touches on the company's products ($M = 4.64, SD = 1.85$) than participants in the control condition ($M = 3.58, SD = 1.39$). Also as predicted, this effect of condition remained significant even when liking of employee was included as a covariate ($F(1, 41) = 3.80, p = .05$), demonstrating that condition had a unique effect in increasing punitiveness.

We then tested our hypothesis that the effect of ability uncertainty condition on punitiveness occurred through the indirect effect of role objectification. Using Preacher and Hayes (2008) procedure, we regressed punitiveness scores onto condition (coded: ability uncertainty = 1/control = 0), with role objectification entered as the proposed mediator. Five-thousand bootstrap resamples were performed. As predicted, the 95% confidence interval obtained for the indirect effect of ability uncertainty condition on punitiveness scores through the mediator of role objectification did not contain zero (.07, 1.32). These results are consistent with our mediational hypothesis that the increase in punitiveness in the ability uncertainty (vs. control) condition occurs through a corresponding increase in the tendency to role-objectify employees. See Fig. 4 for a graphical depiction of the mediation model. It is also worth noting that the indirect effect of condition on punitiveness through role objectification remained significant when employee liking was entered as a covariate (C.I.: .07, 1.20).

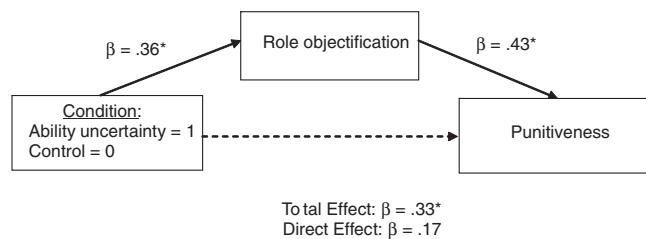


Fig. 4. Indirect effect of ability uncertainty condition on employee punitiveness through role objectification (Study 3). Note: All path coefficients represent standardized regression weights. *Significant at $p < .05$.

Discussion

When participants were led to feel uncertain about their ability to be a successful manager – a position stated to require that one effectively interact with employees – they responded by objectifying employees by viewing them more in terms of the attributes that contribute to workplace goals than their personal qualities. These results demonstrate the utility of SUT for generating novel hypotheses about the causes of objectification as it manifests in domains outside of sexual/gender relations.

Study 3 also provided direct evidence for the mechanism that SUT posits underlies this effect: Priming uncertainty about one's ability to interact successfully with others increased objectification indirectly by increasing concern about one's ability to navigate others' subjective attributes, but not by increasing concern about one's ability to navigate aspects of the workplace that are unrelated to others' subjectivity (despite being superficially complicated). These results provide additional evidence beyond Studies 1 and 2 in support of our claim that objectification in response to subjectivity uncertainty represents a process that is distinct from more global defensive processes in response to general uncertainty. We found, as predicted, that uncertainty about one's ability to relate to others increased objectification specifically by increasing one's concern with navigating others' subjectivity. An uncertainty-simplification account of objectification based on UMT would have predicted that priming uncertainty about valued aspects of the self would heighten concern with one's ability to deal effectively with both subjectivity-related and subjectivity-unrelated aspects of a performance, which would in turn prompt compensatory efforts to simplify. SUT allowed us to hypothesize the effect found in Study 3 because it specifies that uncertainty about one's ability to successfully relate to targets is closely tied to concerns about one's ability to navigate targets' subjective attributes.

Finally, this study offers a first step in exploring the consequences of objectification stemming from the process described by SUT. We saw that, in the context of an imagined workplace, role objectification produced by the salience of uncertainties about one's ability to relate to employees promoted a more disposable view of those imagined employees who threaten the goals of the workplace. To the extent that people are uncertain about their ability to achieve personal value through interactions in workplace or sexual contexts, SUT maintains that they will downplay the subjectivity of others. This denial of humanity may play an important role in licensing exploitation, neglect, and other problems in interpersonal interactions.

General discussion

Three studies assessed our account of objectification, according to which people downplay aspects of others' subjectivity in response to uncertainty about their ability to navigate that subjectivity and thereby interact with others in a value-affirming manner. Study 1 showed that men high in a dispositional desire to have positive relations with women objectified women more after being primed with uncertainty

about interacting successfully with women. In contrast, men's dispositional desire for positive relations with other men did not predict objectification when uncertainty about male–female interactions was salient, and dispositional desire for positive relations with women did not predict objectification when uncertainty about interactions with other men was salient. This pattern of results suggests that objectification of women is motivated specifically by a desire to interact positively with women and moreover that it is not a response to general uncertainty surrounding interpersonal interactions.

In Study 2 we found that men objectified women in response to salient uncertainty about male–female interactions, but only when men were primed to perceive positive relations with women as relevant for maintaining their self-esteem. Study 2 also showed that subjectivity uncertainty increases objectification when it impacts one's own prospects for establishing positive relations with targets: when men were primed with subjectivity uncertainty as it pertains to female–female interactions, they did not respond with increased objectification. Taken together, the results of Studies 1 and 2 support our hypothesis that when men desire positive relations with women but feel uncertain about their ability to do so, they respond by downplaying aspects of women's subjectivity that seem difficult to navigate and representing women more in terms of the characteristics of their physical appearance.

In Study 3 we moved beyond the sexual realm and assessed SUT's utility for explaining people's tendency to objectify others in the workplace in terms of the roles they occupy. We found that priming uncertainty about one's ability to effectively manage employees increased concern with subjectivity-related aspects of manager performance, and this concern positively predicted participants' tendency to role-objectify their hypothetical employees. In contrast, priming uncertainty about managerial ability did not increase participants' concern with their ability to deal effectively with subjectivity-unrelated aspects of the manager performance, nor did this subjectivity-unrelated concern predict role objectification. In addition, we found that role objectification in response to the ability uncertainty prime had the practically important consequence of increasing participants' willingness to punish an employee who expressed his/her subjectivity by replacing them.

Theoretical implications

It is worth reiterating that our account is meant to complement, not replace, objectification theory. Objectification theory explicates how deeply entrenched elements of the dominant Western cultural worldview predispose women and men alike to regard women as mere objects, and it has generated a large body of research on the consequences of objectification for women's and men's performance and well-being. Where the domain of sexual objectification is concerned, our account provides a relatively more focused explanation of one motivational mechanism that lies behind men's tendency to objectify women. In this way, our account is useful because it explains why men objectify women even when the influence of cultural factors (e.g., sexualizing media) is held constant. Men within the same cultural environment will objectify women to varying degrees in different situations, and our research offers a motivational account to partially explain this variability.

However, our account also differs from objectification theory by providing a broader understanding of how objectification occurs in multiple contexts. We contend that people may objectify others in any situation in which they desire successful interpersonal interactions but are uncertain about their requisite ability to navigate targets' subjectivity. In this way, our account builds off the work of Gruenfeld et al. (2008) by demonstrating that objectification is a wide-ranging phenomenon that occurs in many contexts.

Importantly, however, our work also differs somewhat from that of Gruenfeld et al. (2008) where the role of power in objectification is concerned. Specifically, in our studies, it is exactly when people

feel *uncertain* of their power over others – i.e., their ability to influence others – that they are most likely to objectify others, whereas Gruenfeld et al. show increased objectification when people feel as if they are in power. This raises the intriguing possibility that in the studies conducted by Gruenfeld et al. (2008), participants were not actually primed to feel high in power, but were instead primed with *uncertain* power. A temporary power prime may have led people to feel that they have responsibility to successfully complete a task, but also highlighted the gap between their abilities and their potential to successfully influence others. This could have triggered the processes that we examined in the current research. However, this possibility remains speculative at this stage. Future research should attempt to distinguish objectification as a consequence of increased power from objectification as a consequence of insecurity over one's ability to effectively relate to and influence others at a subjective level.

Directions for future research and theory development

As noted in the Introduction and elsewhere, our theoretical account has the potential to explain objectification phenomena in a wide variety of interpersonal contexts. Beyond the interpersonal realm, our account may even explain the motivation behind objectification in intergroup contexts. We can imagine, for example, people in an unfamiliar cultural setting intending to positively interact with members of that culture but also feeling uncertain about what exactly they should do or say. They may compensate by reducing the foreign culture down to simple objects or other tangible representations that seem more manageable. This may explain why many Americans, who have little understanding of the language and customs of Mexico, tend to understand “authentic” Mexican culture in terms of ingredients in food or styles of décor (Gaytán, 2008).

Furthermore, understanding the process of objectification in response to subjectivity uncertainty may prove valuable in other domains beyond the interpersonal realm. People's uncertainty about relating to others may be essential in understanding consumer behavior. A fetishistic love of commodities has long been seen as important in economic behavior (e.g., Marx, 1867/1976), but few psychological accounts exist to explain why people are motivated to invest undue value in objects. For example, people may obsess over the latest technology precisely because it is so responsive to their wishes, unlike the living individuals around them who are often difficult to understand and predict. In the present research, we have focused on reducing one's representation of the uncertain other to a mere object, but people may also withdraw from human contact and invest their energy in inanimate objects (e.g., electronic devices) that provide relatively more straightforward contingencies for establishing self-worth.

This is not to say that SUT can exhaustively account for all of these phenomena or even all forms of interpersonal objectification. We might well suspect that in some circumstances objectification serves a purpose other than the mere denial of subjectivity. For example, in Goldenberg and Roberts's (2011) existential approach to objectification, objectification is more a symbolic denial of others' (and hence one's own) animal nature. Future research should explore which situations and threats motivate people to objectify in divergent ways.

As the aforementioned directions for future research suggest, the present account of objectification broadens our understanding of this phenomenon by inviting us to view it as a motivated strategy that people sometimes adopt in response to subjectivity uncertainty. This allows for an account of objectification that can step beyond the important, but limited, boundaries of sexual objectification. Recent research on objectification has already begun to move in this direction (e.g., Gruenfeld et al., 2008), and we believe that social psychologists are well-served by considering objectification as a more general phenomenon than it has been characterized as thus far.

Practical implications

One practical implication of the current research is that, while objectification may be a motivated attempt to cope with another person's subjectivity, it is likely to undermine any real possibility of establishing and maintaining a meaningful relationship. Presumably meaningful interpersonal relationships rely to some extent on an appreciation of the rich, distinctive texture of another person's subjectivity. While an objectified target may be easier to interact with, the objectifying individual is left with a limited and thus only temporarily valuable set of possible interactions. A person who is sexually objectified, for example, may be a simpler interaction partner, but this simplicity affords only one kind of interaction and thus fails to offer the foundation for a meaningful, sustainable relationship between two (complete) persons.

This raises the question of whether downplaying others' subjectivity in fact facilitates interpersonal interactions at all (i.e., even in the short term). This question falls outside of SUT's scope. The theory is designed only to account for the psychological factors that cause perceivers to objectify. We can speculate, though, that objectification likely backfires and has the opposite effect, undermining the likelihood that people will actually achieve successful interactions with others. Generally speaking, other people do not appreciate having their subjectivity ignored or treated as though they were sexual toys, numbers, or workplace roles. On the other hand, we might expect that people who objectify a target would feel less uncertain about how to engage that target's subjectivity, and that this should result in less anxiety about potential interactions, a heightened sense of competence, and potentially a greater willingness to explore future interactions with the objectified target. Clearly, the question of how objectification in response to subjectivity uncertainty impacts actual interpersonal interactions deserves additional study.

Another practical implication of the current work is that the tendency to think about targets in objectified terms may play a role in fueling and justifying aggression toward those targets. For example, once men have reduced women to sexual playthings, they are likely to view women as less deserving of moral consideration, and as a result they may feel less inhibited about committing physical and sexual violence toward women (cf. Kelman, 1976). Similarly, as our findings regarding punitiveness in Study 3 demonstrate, the current account of objectification sheds light on the unfortunate ramifications of objectifying employees in the workplace.

Finally, this account also offers some positive suggestions for reducing objectification of others. To the extent that people are objectifying to cope with uncertainty about how to attain self-worth through interactions with others, a number of avenues for interventions that may reduce objectification open up. For example, we might decrease objectification among men who want to interact with women by increasing their confidence that they can make a positive impression on women. Alternatively, given our motivated account of objectification, it is also likely that simply affirming men's self-worth should decrease objectification of women. By the same token, increasing managers' confidence that they can successfully interact with employees should decrease objectification in the workplace.

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