THE OBJECT OF AFFECTION: SUBJECTIVITY UNCERTAINTY INCREASES OBJECTIFICATION IN CLOSE RELATIONSHIPS

Lucas A. Keefer and Mark J. Landau
University of Kansas

Daniel Sullivan
University of Arizona

Zachary K. Rothschild
Bowdoin College

Previous research shows that people objectify strangers when led to feel uncertain about their ability to positively relate to those targets—termed *subjectivity uncertainty*. The current research goes further to examine whether, in the context of close relationships, subjectivity uncertainty causes people to adopt simplified perceptions of a relationship partner. Participants primed with subjectivity uncertainty about a relationship partner objectified that person more than participants primed with uncertainty about non-subjective aspects of their relationship (Study 1), subjectivity uncertainty about a different target (Study 2), or negative feelings about the relationship (Study 3). Mediation analyses showed that felt subjectivity uncertainty motivated these simplified perceptions (Studies 1 and 2) and that they are not the result of disliking the target (Study 3). These findings suggest that a desire to establish close relationships, coupled with uncertainty about one's ability to do so, may ironically motivate people to objectify close others.

Close relationships are for most people a source of support and reassurance necessary for long-term well-being (Mikulincer & Shaver, 2007). Yet relationships can be a source of uncertainty when a partner is seen as insensitive, elusive, or otherwise unpredictable. The current research examines whether people compensate for this uncertainty by objectifying relationship partners—that is, by viewing relationship partners in a way that suppresses their emotional complexity (i.e., infrahumaniza-

Correspondence concerning this article should be addressed to Lucas A. Keefer, 444 Fraser Hall, University of Kansas, 1415 Jayhawk Blvd., Lawrence, KS 66045-7556; E-mail: lkeefer1@ku.edu.

tion; Leyens et al., 2001) or casts them as mere tools for personal gain (i.e., instrumental objectification; Gruenfeld, Inesi, Magee, & Galinsky, 2008).

This possibility is suggested by subjectivity uncertainty theory (SUT; Landau, Sullivan, Keefer, Rothschild, & Osman, 2012). The theory, described in more detail below, posits that simplified perceptions of others stem in part from a desire to maintain positive relations with a target coupled with *subjectivity uncertainty*—uncertainty about one's ability to know and appropriately respond to that target's subjective states. To manage this uncertainty, people downplay the target's subjective attributes and focus instead on attributes perceived as easier to understand and control.

Prior tests of SUT focused on the objectification of hypothetical strangers, so it remains an open question whether the theory can explain the documented tendency of people to simplify perceptions of close others. On the one hand, subjectivity uncertainty would seem to be a common experience in close relationships; on the other, complex, subjective attributes of relationship partners would seem to be intimately known and thus more difficult to disregard. In this article we report three studies testing the effect of salient subjectivity uncertainty on the objectification of a close relationship partner. The next section situates the current research in the context of prior work on objectification.

INTERPERSONAL OBJECTIFICATION

Objectification can take many forms. It can involve reducing others to the characteristics of their physical appearance (Fredrickson & Roberts, 1997), assessing their value on the basis of simple quantitative metrics (e.g., salary; Kasser, Ryan, Couchman, & Sheldon, 2004), or viewing them merely in terms of how useful they are for achieving goals, such as valuing workers only for their labor (Marx, 1867/1976). A particularly subtle and pervasive form of objectification is infrahumanization: viewing others as lacking the subjective experience of self-relevant emotions and other characteristically human states (Leyens et al., 2001). What unites these diverse expressions of objectification is a suppression or denial of targets' unique subjective attributes.

Objectification has many negative consequences, including promoting interpersonal aggression. In one study (Loughnan et al., 2010), men and women attributed fewer mental states to male and female targets pictured in sexually revealing clothing, essentially reducing them to sexual objects, and consequently felt less inhibited about harming them. Other studies show that men with a stronger implicit association between women and nonhuman stimuli (animals and/or objects) admitted a greater willingness to rape female targets and more negative views toward victims of rape (Rudman & Mescher, 2012).

Being the target of objectifying perceptions can also be harmful. Women who report being more interpersonally objectified feel more shame about their bodies and experience more negative social interactions (Kozee, Tylka, Augustus-Horvath, & Denchik, 2007). Furthermore, feeling objectified by others can increase

self-objectification—a chronic state of self-evaluation shown to have many harmful effects on physical and mental well-being (Calogero, Davis, & Thompson, 2005; Quinn, Kallen, Twenge, & Frederickson, 2006).

Until now, research has focused on the objectification of strangers and informal acquaintances, and it has devoted relatively little attention to understanding objectification as it occurs in close relationships such as friendships and romantic relationships. It is important to fill this gap because people do occasionally objectify close relationship partners (Strelan & Hargreaves, 2005), and this tendency diminishes relationship satisfaction (Zubriggen, Ramsey, & Jaworski, 2011), intimacy, and commitment (Ali & Chamorro-Premuzic, 2010). Next we introduce a theoretical framework that can be used to explain the motivational processes behind interpersonal objectification.

THEORETICAL BACKGROUND: WHY DO PEOPLE OBJECTIFY OTHERS?

A variety of theoretical perspectives have been brought to bear on the situational and motivational antecedents of objectification processes. In one influential perspective, Gruenfeld, Inesi, Magee, and Galinsky (2008) posited that interpersonal objectification is the result of feelings of personal power. More empowered people feel free to pursue their personal goals, even at the risk of treating others as less than fully human. Supporting studies show that participants primed with feelings of power were more likely to see others as mere means for achieving their goals.

In another perspective, Waytz and Epley (2012) proposed that when people have satisfied their need to feel connected to others, they are less concerned with recognizing others' humanity. Supporting evidence shows that individuals who felt more socially connected (e.g., by having a friend vs. a stranger participating in the same study) adopted more objectifying perceptions of other targets. Although distinct, the perspectives of Gruenfeld et al. (2008) and Waytz and Epley (2012) both trace objectifying perceptions to reduced motivation to think about others' subjective states. Put simply, these views suggest that objectification occurs when a perceiver is simply indifferent to another person's inner life.

SUT offers an alternative explanation for objectification that complements (rather than replaces) the perspectives just reviewed. The theory proposes that people maintain a sense of personal value in part by perceiving themselves as capable of positive social interactions. Succeeding in social interactions requires that one can effectively know, predict, and influence others' mental states and idiosyncratic personalities. However, this is no easy task: others' mental states and personality characteristics are not directly observable and change for reasons that one cannot completely predict or control.

Focusing on these difficulties can increase feelings of *subjectivity uncertainty*—uncertainty about one's ability to adequately know or influence a target's mental states in order to successfully relate to him or her. A failed joke or an ill-received gesture may reveal that a close other is more complex than previously realized. In everyday experiences like these, an important foundation of one's self-esteem—

the ability to successfully relate to close others—is threatened by the realization that one does not fully grasp the nuances of another person's mental states.

SUT's central proposition is people respond to subjectivity uncertainty by downplaying a target's subjective attributes, essentially reducing them to objects. SUT therefore gives rise to a somewhat counterintuitive hypothesis: whereas it would seem that focusing individuals on a target's complex and dynamic mental life should make it difficult to disregard that person's mental states, this focus can trigger compensatory simplification of those states.

In this way, SUT complements perspectives that trace objectification to the freedom to sidestep thinking about others' subjectivity (Gruenfeld et al., 2008; Waytz & Epley, 2012) by explaining why people objectify when they *desire* positive interactions with a target. It also complements the claim that power increases objectification by explaining how objectification can compensate for a *lack* of power—that is, for felt uncertainty about one's ability to interact with another person at a subjective level. Landau et al. (2012) reported initial empirical support for SUT. In one study, men primed to feel uncertain about their ability to successfully interact with female strangers sexually objectified women more to the extent that they desired positive relations with women. In a follow-up study, men and women imaged desiring to positively interact with coworkers in a hypothetical workplace scenario. Those who were additionally primed with subjectivity uncertainty instrumentally objectified their coworkers.

The current research utilizes SUT to examine whether salient subjectivity uncertainty in the context of close relationships leads people to adopt objectifying perceptions of their relationship partners. This possibility does not follow obviously from the findings of Landau et al. (2012) and represents a stronger test of the theory. While people may be comfortable regarding strangers and hypothetical acquaintances as less than fully human, they are presumably less able or willing to disregard the complex mental lives of their actual friends, romantic partners, and family members. Still, objectification of close relationship partners is not uncommon and compensatory uncertainty reduction may be an important antecedent.

THE CURRENT RESEARCH

Based on SUT, we hypothesized that priming subjectivity uncertainty about a relationship partner would cause individuals to adopt more objectifying perceptions of that partner. We tested this broad hypothesis by focusing on two practically important forms of objectification.

First, we predicted that subjectivity uncertainty about a target would cause individuals to infrahumanize that target (Leyens et al., 2001). We measured infrahumanization using a previously validated emotion attribution task (e.g., Demoulin et al., 2004). Participants judged the extent to which targets experience complex, uniquely human *secondary* emotions (e.g., hope, pride) and simpler *primary* emotions (e.g., excitement, pleasure). Prior work shows that under conditions where individuals are motivated to view targets as less than fully human (e.g., when

targets are outgroup members), they ascribe targets fewer secondary emotions but typically do not differ in attributions of primary emotions (Castano & Giner-Sorolla, 2006; Cortes, Demoulin, Rodriguez, Rodriguez, & Leyens, 2005). Extending this work, and further testing SUT, we predicted that salient subjectivity uncertainty about a relationship partner would lead participants to ascribe that partner fewer secondary emotions.

We also expected that subjectivity uncertainty about a target close other would lead to increased instrumental objectification—valuing a target solely for her or his usefulness for personal goal pursuit. Following our theoretical analysis, we predicted that salient subjectivity uncertainty would prompt participants to not only infrahumanize a relationship partner, but also to value that partner as a mere instrument for achieving personal goals.

We tested the unique effect of subjectivity uncertainty on these objectifying perceptions by contrasting it with several critical comparison conditions. First, we hypothesized that the effects of subjectivity uncertainty would be unique from uncertainty in general. Therefore, we predicted that priming subjectivity uncertainty regarding a close relationship partner would increase infrahumanization of that target compared to priming uncertainty about non-subjective aspects of that relationship (Study 1) or subjectivity uncertainty about a different target (Study 2).

As mentioned earlier, prior research shows that people sometimes adopt objectifying perceptions of others when they feel socially connected (Waytz & Epley, 2012). To distinguish the potential effect of subjectivity uncertainty from incidental feelings of social intimacy, in Study 2 we included a comparison condition in which participants were primed to feel certain that they could successfully relate to a close other.

Finally, we addressed the possibility that our predicted effects are due to processes unrelated to subjectivity uncertainty. In particular, it is possible that people feel more negatively toward uncertainty-arousing partners and adopt objectifying perceptions simply to derogate them (cf. Bastian & Haslam, 2010). We addressed this possibility using two empirical strategies. First, we specifically tested the effects of subjectivity uncertainty against a comparison condition priming negative aspects of the target relationship that one knows with certainty (Study 3). Second, to directly test the mediating process specified by SUT, in Studies 1 and 2 we measured felt subjectivity uncertainty toward the target relationship partner following our priming manipulation and before the dependent measures. This enabled us to test our hypotheses that priming subjectivity uncertainty would prompt participants to downplay their partner's secondary emotions (Studies 1 and 2) and instrumentally objectify them to a greater extent (Study 2) as a result of an increase in felt subjectivity uncertainty specifically. Additionally, if downplaying specifically *complex* aspects of a target's subjectivity compensates for salient subjectivity uncertainty, then we would not expect felt subjectivity uncertainty to mediate any effect of our prime on attributions of primary emotions, which are generally simpler and easier to predict. Such evidence would directly support SUT, but would be difficult to explain as the effect of merely feeling more negatively toward the target.

STUDY 1

Study 1 provides an initial test of our hypothesis that priming subjectivity uncertainty regarding a close relationship partner will increase objectification, operationalized as infrahumanization of that partner. To contrast the effect of subjectivity uncertainty from that of general uncertainty, we asked all participants to identify a target with whom they have a close relationship and randomly assigned them to think of uncertainties about either subjective or non-subjective aspects of that relationship.

To more directly examine the process specified by SUT, we tested whether felt subjectivity uncertainty mediated the prime's effect on partner infrahumanization. Specifically, we predicted that felt subjectivity uncertainty would mediate the prime's effect on decreased attributions of secondary emotions to the partner, but would not mediate any effects on attributions of primary emotions to the partner.

METHOD

In the absence of prior data to inform sample size requirements, we recruited 80 participants (i.e., 40 per condition) from Amazon's Mechanical Turk (payment = $.50). We excluded the data of 2 participants who did not complete more than half of the study materials and 13 participants who failed to complete the manipulation or otherwise did not follow instructions (e.g., did not identify a target close other at the beginning of the survey). Thus, the final sample consisted of 65 participants (33 women, M_{age} = 31.67), which meets the sample size recommendations of Simmons, Nelson, and Simonsohn (2011).

Uncertainty Manipulation. Using Qualtrics Survey Software, we first asked all participants to write the name of a specific person with whom they have a close, intimate relationship. Next, participants randomly assigned to the *subjectivity uncertainty* condition were asked to write in detail about two uncertainties about their ability to relate to that target. The writing prompts were as follows; Qualtrics automatically imputed the name of the target close other where indicated:

> Sometimes we are uncertain that our relationships with close others are going well. For example, you may feel unsure whether or not a friend would be there for you if you became ill or needed emotional support. Or you may feel unsure how to "connect" with a family member—that is, when you interact with them, you aren't sure what to do or say. Or you may fear that you could upset your romantic partner or push them away if you said or did the wrong thing at the wrong time.
>
> Think of TWO uncertainties you have about your relationship with [target's name]. In the spaces below, write a couple sentences about each uncertainty and how it makes you feel.

Participants randomly assigned to the *non-subjective uncertainty* condition wrote about two uncertainties about everyday problems affecting their relationship with that target:

> Sometimes we are uncertain about everyday problems that might hurt our relationships with close others. For example, you may feel unsure whether or not your friends could afford to be there for you if you became ill or needed support. Or you may feel unsure that your phone will let you "connect" with a family member—that is, when you interact with them, you aren't sure they can see or hear what you say. Or you may fear that you could upset your romantic partner or push them away if you lost your job or had to move to a new town.
>
> Think of TWO uncertainties you have about everyday problems affecting your relationship with [target's name]. In the spaces below, write a couple sentences about each uncertainty and how it makes you feel.[1]

Felt Subjectivity Uncertainty. Participants then completed an eight-item measure of felt subjectivity uncertainty with regard to the target they wrote about. Sample items are: "I am unsure that I really understand [*target's name*]"; "I am confident that I know how to make [*target's name*] happy" (reverse scored). Participants rated their agreement with these items on a 7-point scale (1 = *Strongly disagree*; 7 = *Strongly agree*). The items formed a reliable composite (α = .89) and scores were averaged.

Infrahumanization. Finally, participants completed a short form of a validated infrahumanization measure assessing attributions of secondary and primary emotions (Castano & Giner-Sorolla, 2006). Specifically, participants were presented with ten emotion words in random order. Five words described secondary emotions (*admiration*, *hope*, *love*, *pride*, *tenderness*); five described primary emotions (*calm*, *excitement*, *enjoyment*, *pleasure*, *surprise*). For each emotion, participants were asked to rate how often the target feels those emotions using a scale from 1 ([*target's name*] *rarely feels this emotion*) to 7 ([*target's name*] *often feels this emotion*). Attributions for primary (α = .47) and secondary (α = .60) emotion words were averaged. Because past research supports grouping these emotions into their respective categories and the patterns of results are the same for each emotion, we treated these composites as our primary dependent measures.[2]

RESULTS

Felt Subjectivity Uncertainty. Felt subjectivity uncertainty scores were submitted to a one-way ANOVA comparing the priming conditions. As predicted, participants primed with subjectivity uncertainty felt more subjectivity uncertainty (*M*

---

1. Participants appeared to have no difficulty thinking of relationship uncertainties that were not about navigating close others' subjectivity. Typical responses include "I don't know what the future will bring," "Bills. I want to be able to help with the bills," and "I don't know if people will be available to give me a ride somewhere when I need one."

2. These alphas are somewhat low likely because they represent ratings on diverse emotions and because idiosyncratic perceptions of close others created considerable variability in attributions.

= 2.96, *SD* = 1.03) than participants primed with non-subjective uncertainty (*M* = 2.34, *SD* = .86), $F(1, 63) = 6.93$, $p = .01$, $\eta_p^2 = .10$. Observed power to detect this effect was .75, close to a standard guideline of .80 (Cohen, 1988).

Infrahumanization. Also as predicted, attributions of secondary emotions differed by condition, $F(1, 63) = 16.76$, $p = .0001$, $\eta_p^2 = .21$ (observed power = .98).[3] Participants primed with subjectivity uncertainty about a close relationship partner attributed fewer secondary emotions to that person (*M* = 4.21, *SD* = .86) than participants primed with non-subjective uncertainty about their close relationship (*M* = 5.01, *SD* = .73).[4]

The uncertainty manipulation also had a marginal effect on attributions of primary emotions, $F(1, 63) = 2.98$, $p = .07$, $\eta_p^2 = .05$ (observed power = .44). As in the case of secondary emotions, participants primed with subjectivity uncertainty attributed fewer primary emotions to the target (*M* = 4.43, *SD* = .78) than participants primed with non-subjective uncertainty (*M* = 4.77, *SD* = .66).

Finally, we tested whether the decrease in secondary emotion attributions in the subjectivity uncertainty condition was due to an increase in felt subjectivity uncertainty. In support of this model, the more participants felt uncertain about the subjectivity of a target relationship partner, the fewer secondary emotions they attributed to that target, $\beta = -.34$, $t(63) = 2.86$, $p = .006$ (observed power = .95), whereas felt subjectivity uncertainty did not predict attributions of primary emotions, $t(63) = .15$, $p = .88$.

We then conducted a mediation analysis treating felt subjectivity uncertainty as the mediating variable of the effect of the priming manipulation (dummy-coded: 1 = subjectivity uncertainty/0 = non-subjective uncertainty) on attributions of secondary emotions using bootstrapping with 5,000 resamples (Preacher & Hayes, 2008). The resulting confidence interval did not include zero (-.34, -.004), providing evidence that the subjectivity uncertainty prime reduced secondary emotion attributions through an increase in felt subjectivity uncertainty (see Figure 1).[5]

In contrast, when primary emotion attributions were entered as the outcome measure, the model was nonsignificant (CI: -.11, .20). To clarify, self-reported sub-

---

3. In this and the following studies, analyses including gender as a between-subjects factor revealed little evidence of gender differences. We observed no gender main effects on any outcome measure in Study 1 (all *p*s > .33) or Study 2 (*p*s > .26). We observed a gender main effect in Study 3, such that men showed higher instrumental objectification of their close relationship partner (*M* = 2.80, *SD* = 1.14) than did women (*M* = 1.85, *SD* = 1.48, *p* = .03).

Gender did not interact with priming condition on any outcome measure in any of the current studies (all *p*s > .23). These null effects are expected given that SUT posits that subjectivity uncertainty promotes objectification similarly among men and women.

4. The pattern of means was the same for all of the secondary emotions; still significant differences between the conditions emerged only for *hope* (*p* = .04), *love* (*p* = .002), and *admiration* (*p* = .03). Differences on *pride* (*p* = .06) and *tenderness* (*p* = .09) were marginal.

5. Attributions of primary and secondary emotions were positively correlated (*r* = .44, *p* = .0002). Still, the indirect effect on secondary emotion attributions remained significant when controlling for primary emotion attributions (CI: -.34, -.03). In a Monte Carlo simulation of 20,000 samples based off of the observed parameters for this model, the indirect effect was significant in 28.2% of cases: in other words, observed power to detect this indirect effect was .28 (following Fritz & MacKinnon, 2007; Thoemmes, MacKinnon, & Reiser, 2010).
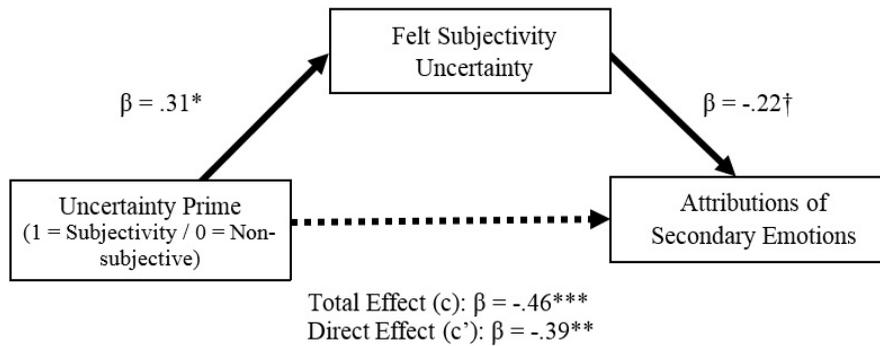
FIGURE 1. Mediation of the Effect of Priming Subjectivity Uncertainty on Attributions of Secondary Emotions by Felt Subjectivity Uncertainty (Study 1)

Note: The direct effect coefficient represents the effect of the independent variable after controlling for the effect of the proposed mediator. Total adjusted R^2 for the model = .23, $F(2, 62)$ = 10.44, $p < .001$; † = .06, * Significant at $p < .05$, **$p < .01$, ***$p < .001$

jectivity uncertainty predicted decreased attributions of secondary emotions but not primary emotions.[6]

DISCUSSION

This study provides initial evidence that subjectivity uncertainty about a close relationship partner promotes objectifying perceptions of that person. First, we found that priming subjectivity uncertainty about a relationship partner increased participant's doubts about their ability to relate to that partner.

Second, although primed subjectivity uncertainty decreased attributions of both primary and secondary emotions, the effect reached significance only for secondary emotions, which are generally perceived as complex, uniquely human mental states.

Finally, an increase in felt subjectivity uncertainty mediated the prime's effect on secondary emotion attributions, but did not mediate the marginal effect on primary emotion attributions. This diverging pattern of mediation effects supports our prediction that participants would respond to felt subjectivity uncertainty by downplaying complex aspects of their partner's subjectivity in particular rather than any aspect of their partner's mental life. Study 2 aims to conceptually replicate this effect and address some outstanding questions.

STUDY 2

In Study 1 we compared the effect of subjectivity uncertainty about a relationship partner to uncertainty about non-subjective aspects of the target relationship. Therefore, the results of Study 1 cannot rule out the possibility that general feel-

---

6. Controlling for attributions of secondary emotions did not result in a significant indirect effect (CI: -.08, .13).

ings of subjectivity uncertainty, even if not specifically in reference to the target relationship partner, lead people to objectify that partner. To examine this alternative possibility, in Study 2 we compared subjectivity uncertainty specifically about a target relationship partner to a condition priming participants with subjectivity uncertainty about a different person with whom they have a close, intimate relationship.

It is also possible that thinking about relating to a close relationship partner in general may have incidentally primed feelings of social connection, which then led to objectifying perceptions (following Waytz & Epley, 2012). To test this possibility, we included a second comparison condition in which participants were primed to think about positive aspects of a close relationship. If our primary predicted effect was simply due to increased social connection, contemplating either uncertainties or positive aspects of a close relationship partner should increase objectification of that partner compared to contemplating a different relationship partner.

It is important to test whether the primary predicted effect of subjectivity uncertainty extends to other operationalizations of objectification, and is not limited to infrahumanization. Therefore, in Study 2 we also measured participants' instrumental objectification of their close relationship partner (Gruenfeld et al., 2008). Following SUT, we predicted that participants primed with subjectivity uncertainty about a close relationship partner would adopt instrumentally objectifying perceptions of that partner because these perceptions also downplay the partner's subjectivity. We also predicted that this effect would be mediated by felt subjectivity uncertainty.

METHOD

We recruited 120 participants (i.e., 40 per condition) from Amazon's Mechanical Turk (payment = $.50). We excluded the data of 9 participants who failed to complete the manipulation or otherwise did not follow instructions (e.g., did not identify a target close other at the beginning of the survey). Thus, the final sample consisted of 111 participants (42 women, M_{age} = 31.61).

Uncertainty Manipulation. As in Study 1, all participants wrote the name of a person with whom they have a close, intimate relationship. After identifying that target close other, one-third of the participants were randomly assigned to the *target-specific subjectivity uncertainty* condition from Study 1; another third wrote about two uncertainties about their ability to relate to a different person with whom they have a close, intimate relationship (*target-irrelevant subjectivity uncertainty*); and a final third wrote about two certainties about their ability to relate to the initial target (*subjectivity certainty*):

Sometimes we are certain that our relationships with close others are going well. For example, you may feel sure that a friend would be there for you if you became ill or needed emotional support. Or you may know how to "connect" with a family member—that is, when you interact with them, you are sure what to do and

say. Or you may be confident that you will not upset your romantic partner or push them away by saying or doing the wrong thing at the wrong time.

Think of TWO certainties you have about your relationship with [target's name]. In the spaces below, write a couple sentences about each certainty and how it makes you feel.

Felt Subjectivity Uncertainty. Participants then completed the same target-specific measure of felt subjectivity uncertainty used in Study 1 (α = .82).

Infrahumanization. Participants completed the same target-specific infrahuman-ization measure used in Study 1. Attributions for primary (α = .59) and secondary (α = .63) emotion words were averaged.

Instrumental Objectification. Finally, participants completed Gruenfeld et al.'s (2008) ten-item instrumental objectification measure. All participants were in-structed to complete the measure with reference to the close other they identified at the beginning of the study. Sample items were "I tend to contact [*target's name*] only when I need something from him/her"; "My relationship with [*target's name*] is based on how much I enjoy our relationship, rather than on how productive our relationship is" (reverse scored). Participants rated their agreement with these statements on a 7-point scale (1 = *Strongly disagree*; 7 = *Strongly agree*) and the items formed a reliable composite (α = .78).

RESULTS

Felt Subjectivity Uncertainty. Submitting felt subjectivity uncertainty scores to a one-way ANOVA returned an omnibus effect, $F(2, 107) = 9.51$, $p < .001$, $\eta_p^2 = .18$ (observed power = .99). Pairwise comparisons (Fisher's LSD) revealed, as pre-dicted, that participants primed with target-specific subjectivity uncertainty felt more subjectivity uncertainty about that partner ($M = 3.03$, $SD = 1.18$) than partici-pants primed with target-irrelevant subjectivity uncertainty ($M = 2.11$, $SD = .74$, $p < .0001$) and those primed with subjectivity certainty ($M = 2.31$, $SD = .97$, $p = .001$). The latter two conditions did not differ ($p = .40$).

Infrahumanization. Attributions of secondary emotions differed by condition, $F(2, 107) = 5.18$, $p = .007$, $\eta_p^2 = .10$ (observed power = .88). Participants primed with target-specific subjectivity uncertainty attributed significantly fewer secondary emotions to that target ($M = 4.45$, $SD = .94$) than participants primed with target-irrelevant subjectivity uncertainty ($M = 5.08$, $SD = .92$, $p = .002$) and those primed with subjectivity certainty ($M = 4.86$, $SD = .78$, $p = .056$). The latter two conditions did not differ ($p = .31$).[7]

The uncertainty manipulation also had an effect on attributions of primary emo-tions $F(2, 107) = 5.07$, $p = .008$, $\eta_p^2 = .09$ (observed power = .84). Participants primed with target-specific subjectivity uncertainty attributed significantly fewer primary

---

7. As in Study 1, the pattern of means was the same for all of the secondary emotions, although omnibus differences between conditions emerged only for *love* ($p = .058$) and *admiration* ($p = .056$). Differences on *tenderness* were marginal ($p = .09$), and differences on *hope* and *pride* were nonsignificant (ps = .25 and .29, respectively). The pattern of pairwise comparisons across Studies 1 and 2 do not share sufficient parallels to permit strong claims about which secondary emotions primarily account for the observed effects on composite secondary emotion attributions.
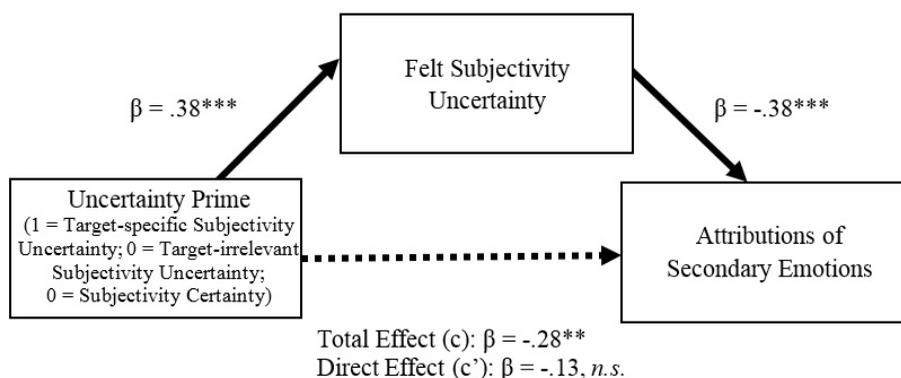
FIGURE 2. Mediation of the Effect of Priming Target-Specific Subjectivity Uncertainty on Attributions of Secondary Emotions by Felt Subjectivity Uncertainty (Study 2).

Note: The direct effect coefficient represents the effect of the independent variable after controlling for the effect of the proposed mediator. Total adjusted R^2 for the model = .19, $F(2, 107) = 13.54$, $p < .0001$; *Significant at $p < .05$, **$p < .01$, ***$p < .001$

emotions to that target ($M = 4.38$, $SD = .95$) than participants primed with target-irrelevant subjectivity uncertainty ($M = 4.93$, $SD = .89$, p = .008) or subjectivity certainty ($M = 4.95$, $SD = .84$, $p = .009$). The latter two conditions did not differ ($p = .94$).

As in Study 1, we tested whether the decrease in secondary emotion attributions in the target-specific subjectivity uncertainty condition was due to an increase in felt subjectivity uncertainty. In support of this model, the more participants felt uncertain about the subjectivity of a target relationship partner, the fewer secondary emotions they attributed to that target, $\beta = -.43$, $t(108) = 4.98$, $p < .0001$ (observed power = .99). Although felt subjectivity uncertainty also negatively predicted primary emotion attributions, $\beta = -.25$, $t(108) = 2.64$, $p = .009$ (observed power = .87), a test of the paired correlations showed that the effect was stronger for secondary emotion attributions, $t(108) = 2.28$, $p = .02$.

We then tested a model treating felt subjectivity uncertainty as the mediator of the effect of the priming manipulation (dummy-coded: target-specific subjectivity uncertainty = 1; other conditions = 0) on secondary emotion attributions using bootstrapping with 5,000 resamples (Preacher & Hayes, 2008). The resulting confidence interval did not include zero (-.49, -.14), providing evidence that priming target-specific subjectivity uncertainty decreased secondary emotion attributions through an increase in felt subjectivity uncertainty (Figure 2).[8]

8. As in Study 1, attributions of primary and secondary emotions were positively correlated ($r = .58$, $p < .0001$), yet the predicted indirect effect on secondary emotion attributions remained significant when controlling for primary emotion attributions (CI: -.37, - .09). The effect also remained significant when we controlled for differences between the two comparison conditions—that is, when we included a second dummy code reflecting the comparison between uncertainty about a different close other and all other conditions (CI: -.45, -.08) or controlling for both primary emotion attributions and differences between the comparison conditions (CI: -.35, -.04). In a Monte Carlo simulation of 20,000 samples based off of the observed parameters for this model, the indirect effect was significant in 97.5% of cases (observed power to detect this indirect effect was .97).

In contrast, when primary emotion attributions were entered as the outcome measure, the model was nonsignificant (-.29, .02). This replicates Study 1's finding that subjectivity uncertainty about a relationship partner decreased attributions of secondary emotions specifically, and not emotions in general.[9]

Instrumental Objectification. Also as predicted, instrumental objectification differed by condition, $F(2, 107) = 5.04$, $p = .008$, $\eta p^2 = .09$ (observed power = .84). Participants primed with target-specific subjectivity uncertainty adopted more instrumentally objectifying perceptions of that target ($M = 3.43$, $SD = .91$) than participants primed with target-irrelevant subjectivity uncertainty ($M = 2.88$, $SD = .79$, $p = .003$) or subjectivity certainty ($M = 3.01$, $SD = .65$, $p = .03$). The latter two conditions did not differ ($p = .51$).

As with infrahumanization, we tested a model treating felt subjectivity uncertainty as the mediator of the condition effect on instrumental objectification. The resulting confidence interval did not include zero (.02, .31), demonstrating that people viewed a relationship partner in instrumental terms after being primed with subjectivity uncertainty about that person, but not another relationship partner, and this effect was due to increased feelings of subjectivity uncertainty (Figure 3).[10]

DISCUSSION

Study 2 provides further evidence that subjectivity uncertainty about a close relationship partner leads to objectifying perceptions of that person. This effect emerged across two operationalizations of objectification. First, we replicated the effect of subjectivity uncertainty on infrahumanization found in Study 1. Second, we found parallel effects on instrumental objectification: participants primed with uncertainty about a relationship partner's subjectivity responded by adopting more instrumentally objectifying perceptions of that partner.

Study 2 included comparison conditions that rule out some alternative possibilities. First, the predicted effect of subjectivity uncertainty was found in contrast to primed feelings of subjectivity uncertainty about a different relationship partner. This suggests that objectification of a close relationship partner is not the result of salient subjectivity uncertainty about just anyone; rather, it stems specifically from salient subjectivity uncertainty about that target partner. Furthermore, the predicted effect emerged in contrast to a second comparison condition that primed subjectivity certainty, suggesting that the effect of subjectivity uncertainty on ob-

9. As in Study 1 (Footnote 6), controlling for attributions of secondary emotions did not result in a significant indirect effect on primary emotion attributions (CI: -.06, .15). The indirect effect also remained nonsignificant after controlling for the differences between the comparison conditions, with (CI: -.08, .13) or without (CI: -.22, .07) controlling for secondary emotion attributions.

10. The indirect effect remained significant (CI: .01, .30) when we included in the model a second dummy-code comparing the target-irrelevant subjectivity uncertainty and subjectivity certainty comparison conditions. In a Monte Carlo simulation of 20,000 samples based off of the observed parameters for this model, the indirect effect was significant in 56.8% of cases (observed power to detect this indirect effect was approximately .57).
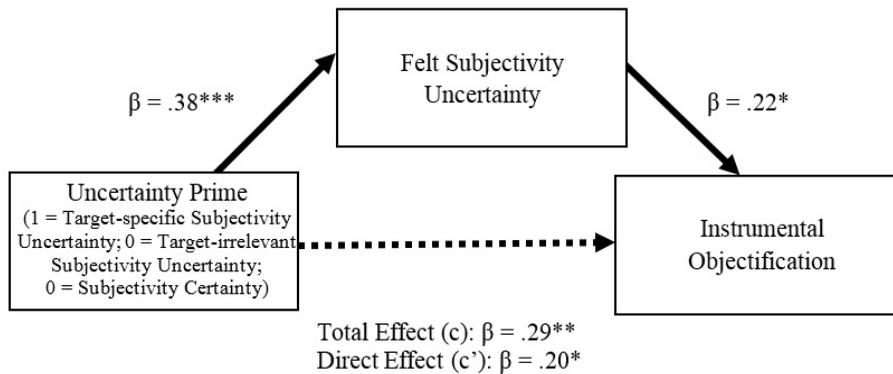
FIGURE 3. Mediation of the Effect of Priming Target-Specific Subjectivity Uncertainty on Instrumental Objectification by Felt Subjectivity Uncertainty (Study 2).

Note: The direct effect coefficient represents the effect of the independent variable after controlling for the effect of the proposed mediator. Total adjusted R^2 for the model = .11, $F(2, 107) = 7.47$, $p < .001$. *Significant at $p < .05$, **$p < .01$, ***$p < .001$

jectification is not simply due to thinking about a close partner's subjective attributes or from feeling socially connected.

Also replicating Study 1, Study 2 provides further support for the process specified by SUT. Participants' feelings of target-specific subjectivity uncertainty predicted decreased attributions of both primary and secondary emotions; however, the association with secondary emotion attributions was stronger. Also, although priming target-specific subjectivity uncertainty generally caused participants to attribute fewer emotional experiences to the target partner, felt subjectivity uncertainty mediated the prime's effect on secondary emotion attributions but not primary emotion attributions. Extending this mediational effect to a converging outcome, Study 2 showed that felt subjectivity uncertainty also mediated the effect of the subjectivity uncertainty prime on participants' instrumental objectification of their close partner.

While we found evidence that subjectivity uncertainty increased these simplified perceptions of close others as a function of increased uncertainty, it is possible that the data thus far could still reflect decreased liking for the target. Being primed with uncertainty about a partner may have caused participants to feel less positively about that partner. These feelings may subsequently have caused participants to feel more uncertain about the relationship and to see that partner as having fewer experiences of love, for example, simply because they view the relationship more negatively. Study 3 directly addresses this alternative possibility.

STUDY 3

While the studies thus far have shown that subjectivity uncertainty increases objectification, it is possible that the subjectivity uncertainty prime induced negative feelings about the close other that may have led to objectifying perceptions.

The effects of this critical condition have been distinguished from other forms of uncertainty about a relationship (Study 1), uncertainty about a different relationship (Study 2), and positive reminders of a close other (Study 2). However, these comparison conditions do not similarly prime negative feelings that might reduce liking of that target.

To address this possibility, we primed participants with either subjectivity uncertainty about a target partner or negative aspects of a target partner about which they felt certain. We expected that while both conditions may induce negative feelings toward the target partner, target-relevant subjectivity uncertainty should uniquely increase objectifying perceptions of that target. We also measured liking for the partner to test whether liking mediated the predicted effect of subjectivity uncertainty on objectification. We did not expect any such effect.

METHOD

A total of 50 participants (28 women, M_{age} = 33.85) were recruited through Amazon's MTurk service for payment ($.50). The data of 6 participants who failed to complete the manipulation or otherwise did not follow instructions (e.g., did not identify a target close other at the beginning of the survey) were removed from the analysis. Thus, the final sample consisted of 44 participants (27 women, M_{age} = 31.61).

Uncertainty Manipulation. All participants identified a close relationship partner. They were next randomly assigned to write about either uncertainties about that partner's subjectivity (using the same materials and procedure described in Studies 1 and 2) or two negative aspects of the relationship partner that they know with certainty (the writing prompt was modeled after the subjective certainty condition in Study 2).

Instrumental Objectification. Participants then completed the same instrumental objectification measure used in Study 2 (α = .79).

Target Liking. Participants then rated their agreement (1 = *Strongly disagree*; 7 = *Strongly agree*) with four items assessing liking of the target (e.g., "I enjoy my relationship with [*target's name*]," "I like [*target's name*]"; α = .82).

RESULTS

Instrumental Objectification. Instrumental objectification scores were submitted to a one-way ANOVA comparing the priming conditions. As predicted, participants primed with subjectivity uncertainty adopted more instrumentally objectifying perceptions of the target (M = 2.61, SD = 1.53) than participants primed with negative certainty (M = 1.77, SD = .92), $F(1, 41)$ = 4.50, p = .04, ηp^2 = .10 (observed power = .58).

Target Liking. Submitting participants' felt liking scores to the same analysis revealed no difference between the subjectivity uncertainty (M = 5.97, SD = 1.32) and negative certainty conditions (M = 6.30, SD = 1.10), $F(1, 41)$ = .79, p = .38. While lik-

ing was negatively correlated with instrumental objectification (r = -.48, p = .001), an indirect effect test confirmed that the observed difference in instrumental objectification was not explained by liking of the target (ci: -.53, .20).

DISCUSSION

Participants primed with subjectivity uncertainty adopted more objectifying perceptions of a close other compared to those primed with negative certainties about a close other. This finding replicates the effect of subjectivity uncertainty on instrumental objectification found in Study 2 and furthermore rules out the alternative explanation of that effect as simply due to the salience of negative aspects of the target in the subjectivity uncertainty condition. Furthermore, the primary predicted effect of subjectivity uncertainty on instrumental objectification was not found to be mediated by participants' feelings of liking toward their relationship partner. This suggests that subjectivity uncertainty influences interpersonal perception in ways that are distinct from negative attitudes.

GENERAL DISCUSSION

The goal of the current research is to examine the motives behind people's tendency to adopt objectifying perceptions of close relationship partners. We drew on SUT, which posits that people downplay complex aspects of another person's subjectivity in part to compensate for uncertainty about their ability to successfully influence that person's subjective attributes—that is, *subjectivity uncertainty*. On the basis of this theory, we predicted that salient subjectivity uncertainty would lead people to adopt more simplified perceptions of close others.

In support of this broad hypothesis, the results of Study 1 show that salient subjectivity (vs. non-subjective) uncertainty about a target relationship partner decreased attributions of both complex and simple emotions; though participants' feelings of subjectivity uncertainty mediated the prime's effect only on attributions of secondary emotions. This finding supports our claim that people compensate for subjectivity uncertainty specifically by downplaying complex aspects of a person's internal life.

Study 2 provided further evidence that the effects of target-specific subjectivity uncertainty are unique from subjectivity uncertainty in general or certainty about one's ability to relate to a target. Once again we found that feelings of subjectivity uncertainty accounted for the effects of the prime on decreased attributions of complex secondary (but not primary) emotions. Furthermore, we found parallel effects on instrumentally objectifying perceptions which were also due to feelings of subjectivity uncertainty.

Finally, Study 3 provided additional evidence that the effects of subjectivity uncertainty are unique from merely feeling negatively toward a partner. Subjectivity uncertainty increased objectifying perceptions (vs. a negative certainty compari-

son) and this increase was not due to any change in how much participants liked the target.

LIMITATIONS AND FUTURE DIRECTIONS

While these studies offer insight into how people manage a unique form of uncertainty in close relationships, they also leave many open questions. First, while we expected subjectivity uncertainty to decrease attributions of complex secondary emotions, we found that our prime decreased attributions of primary emotions as well, though this was not due to felt subjectivity uncertainty in either study. This raises further questions about the process involved. It is possible that subjectivity uncertainty did in fact motivate this decrease, but along some aspect of the construct that was untapped by our measure. However, it may also be that decreased attributions of these simpler emotions are due to some separate response to the prime (e.g., negative affect toward the close other) that we failed to assess in these studies.

Additionally, it may be that our infrahumanization measure is not merely assessing infrahumanization in this context. While this approach has been empirically validated in an intergroup context, the perception that close others have fewer experiences of love, for example, may mean something other than merely adopting a simplified perception of that close other. Following that example, seeing a close other as feeling less love may reflect a perception of that partner's distance, rather than a lack of essentially human experiences per se. While we were able to speak to this issue in part by providing converging evidence with a different assessment of objectification, future work should explore the effects of subjectivity uncertainty on other empirically validated assessments of objectification.

Future research should also further examine the significance of subjectivity uncertainty and resulting objectification in close relationships. Given the results of the present research, combined with past research on the negative consequences of objectification, it seems likely that chronic subjectivity uncertainty could be a major contributor to low levels of relationship satisfaction and poor relationship outcomes. It will also be important to examine objectification in close relationships from the target's perspective. For example, if a person interacts with a close other after experiencing subjectivity uncertainty about them, they may, or may not, notice a change in this person's behavior.

It will also be important to compare the circumstances under which perceiving close others in more objectified terms is psychologically comforting versus threatening. Under normal (i.e., non-threatening) circumstances, relationships with close others are likely seen as unrewarding and strenuous to the extent that the other is perceived as having a simple or non-emotive subjectivity (Csikszentmihalyi, 1980). But from the perspective of SUT, a person who has been feeling uncertain about their ability to successfully interact with others may feel relieved if a close other acts in a simplistic or object-like manner. Therefore, SUT may have identified

an unusual circumstance in which people's typical evaluations of close others are temporarily reversed: the simpler one's friend or partner seems to be, the better.

While we induced subjectivity uncertainty in a very direct manner in these initial investigations (in order to assure greater internal validity), future studies should examine some of the situations which give rise to subjectivity uncertainty in everyday life or in the context of actual, ongoing relationships. Longitudinal research with dyads would be one fruitful approach to gathering data on this problem. But intuition and prior theory already suggest many sources of subjectivity uncertainty that could be manipulated in experiments. As one example, perspectives ranging from the classic work of Simmel (1950) to media richness theory (e.g., Trevino, Lengel, & Daft, 1987) propose that indirect or mediated forms of communication (e.g., e-mail or text) can induce uncertainty about the complex emotional factors that may have contributed to a close other's communication. Investigations of the naturally occurring sources of subjectivity uncertainty in relationships could prove both theoretically and practically important.

THEORETICAL AND PRACTICAL IMPLICATIONS

At first glance, these findings seem at odds with recent research finding that once our needs for social connection are fulfilled, we lose our motivation to treat others as fully human (Waytz & Epley, 2012). However, our research is concerned with how people respond to subjectivity uncertainty, which threatens to undermine social connection. In other words, while Waytz and Epley found that social connection offers a secure foundation for objectifying perceptions of distant others, our research finds that subjectivity uncertainty results in objectification of close others because people feel insecure about their relationships. The interplay of SUT and other processes, particularly with respect to maintaining and achieving social connection, presents fertile ground for new research on differing situational factors behind objectification.

Of course, objectifying perceptions are unlikely to be an effective approach to long-lasting or particularly meaningful relationships. This is so in part because reducing the perceived subjective complexity of close others means that people facing subjectivity uncertainty create opportunities for close others to violate their (now limited) expectations. For example, if an individual perceives friends in objectifying terms, then when those friends express their own agency, this expectancy violation may further reinforce the perception that close others are unpredictable. As a consequence, our data suggest that people may be setting themselves up for greater subjectivity uncertainty by forming simplified representations of partners that are likely to be violated. The current studies focused on antecedents of objectification, but suggest the need for further research on just how much certainty people gain from objectifying, and the consequences this may have on intimacy and other relational outcomes.

Further research should consider the role of subjectivity uncertainty management in other ways people idealize or fetishize close relationship partners. Sexual objectification of a partner (i.e., representing them only as a body to be used for personal pleasure), idealization of a partner (i.e., representing them in unrealistically desirable ways), or otherwise fetishizing certain aspects of a partner may all represent alternative expressions of the same motivation to suppress close others' subjectivity. The reasons why someone may deploy one form of objectification over others is an open question.

However objectification may be expressed in a relationship, it clearly can have deleterious consequences for the objectified target. Targets that are objectified, sexually or otherwise, may lose some of the moral protections from harm that come from being seen as fully human and as a result may be subject to physical, emotional, or sexual abuse in relationships (e.g., Dutton, 1998). Future research should explore the role of interpersonal objectification in abuse and other forms of interpersonal aggression because this may offer new interventions for improving the quality of close relationships generally.

CONCLUSIONS

This research reveals the role of subjectivity uncertainty processes in close relationships. These findings suggest that people who are uncertain about close others' subjectivity may be sacrificing meaningful, intimate connection for short-term certainty.

However, these findings also suggest a solution to this problem. If individuals assuage their subjectivity uncertainty, they may feel confident adopting fuller perceptions of their partner's subjective states that allow for more intimacy and connection. This is no easy task, but our findings suggest that increasing feelings of social competence and self-worth may attenuate subjectivity uncertainty and allow some people to adopt less harmful strategies for transacting with relationship partners.

REFERENCES

Ali, F., & Chamorro-Premuzic, T. (2010). The dark side of love and life satisfaction: Associations with intimate relationships, psychopathy, and Machiavellianism. *Personality and Individual Differences, 48*, 228-233. doi: 10.1016/j.paid.2009.10016

Bastian, B., & Haslam, N. (2010). Excluded from humanity: The dehumanizing effects of social ostracism. *Journal of Experimental Social Psychology, 46*, 107-113. doi: 10.1016/j.jesp.2009.06.022

Calogero, R. M., Davis, W. M., & Thompson, J. K. (2005). The role of self-objectification in the experience of women with eating disorders. *Sex Roles, 52*, 43-50. doi: 10.1007/s11199-005-1192-9

Castano, E., & Giner-Sorolla, R. (2006). Not quite human: Infrahumanization in response to collective responsibility for intergroup killing. *Journal of Personality and Social Psychology, 90*, 804-838. doi: 10.1037/0022-3514.90.5.804

Cohen, J. (1988). *Statistical power analysis for the behavioral sciences.* Hillsdale, NJ: Erlbaum.

Cortes, B. P., Demoulin, S., Rodriguez, R. T., Rodriguez, A. P., & Leyens, J. P. (2005). Infrahumanization or familiarity? Attribution of uniquely human emotions to the self, the ingroup, and the outgroup. *Personality and Social Psychology Bulletin, 31*, 243-253. doi: 10.1177/0146167204271421

Csikszentmihalyi, M. (1980). Love and the dynamics of personal growth. In K. S. Pope (Ed.), *On love and loving* (pp. 306-326). San Francisco: Jossey-Bass.

Demoulin, S., Leyens, J. Ph., Paladino, P. M., Rodriguez, R. T., Rodriguez, A. P., & Dovidio, J. (2004). Dimensions of "uniquely" and "non-uniquely" human emotions. *Cognition and Emotion, 18*, 71-96. doi: 10.1080/02699930244000444

Dutton, D. G. (1998). *The abusive personality: Violence and control in intimate relationships*. New York: Guilford.

Fredrickson, B. L., & Roberts, T. (1997). Objectification theory: Toward understanding women's lived experiences and mental health risks. *Psychology of Women Quarterly, 21*, 173-206.

Fritz, M. S., & MacKinnon, D. P. (2007). Required sample size to detect the mediated effect. *Psychological Science, 18*, 233-239. doi: 10.1111/j.1467-9280.2007.01882.x

Gruenfeld, D. H., Inesi, M. E., Magee, J. C., & Galinsky, A. D. (2008). Power and the objectification of social targets. *Journal of Personality and Social Psychology, 85*, 111-127. doi: 10.1037/0022-3514.95.1.111

Kasser, T., Ryan, R. M., Couchman, C. E., & Sheldon, K. M. (2004). Materialistic values: Their causes and consequences. In T. Kasser & A. D. Kanner (Eds.), *Psychology and consumer culture: The struggle for a good life in a materialistic world* (pp. 11-28). Washington, DC: American Psychological Association.

Kozee, H. B., Tylka, T. L., Augustus-Horvath, C. L., & Denchik, A. (2007). Development and psychometric evaluation of the interpersonal sexual objectification scale. *Psychology of Women Quarterly, 31*, 176-189. doi: 10.1111/j.1471-6402.2007.00351.x

Landau, M. J., Sullivan, D., Keefer, L. A., Rothschild, Z. K., & Osman, M. R. (2012). Subjectivity uncertainty theory of objectification: Compensating for uncertainty about how to positively relate to others by downplaying their subjective attributes. *Journal of Experimental Social Psychology, 48*, 1234-1246. doi: 10.1016/j.jesp.2012.05.003

Leyens, J. P., Rodriguez, A. P., Rodriguez, R. T., Gaunt, R., Paladino, M. P., Vaes, J., & Demoulin, S. (2001). Psychological essentialism and the differential attribution of uniquely human emotions to ingroups and outgroups. *European Journal of Social Psychology, 31*, 395-411. doi: 10.1002/ejsp.50

Loughnan, S., Haslam, N., Murnane, T., Vaes, J., Reynolds, C., & Suitner, C. (2010). Objectification leads to depersonalization: The denial of mind and moral concern to objectified others. *European Journal of Social Psychology, 40*, 709-717.

Marx, K. (1867/1976). *Capital: A critique of political economy (Vol. 1)*. Hammondsworth: Penguin.

Mikulincer, M., & Shaver, P. R. (2007). *Attachment in adulthood: Structure, dynamics, and change*. New York: Guilford.

Quinn, D. M., Kallen, R. W., Twenge, J. M., & Fredrickson, B. L. (2006). The disruptive effect of self-objectification on performance. *Psychology of Women Quarterly, 30*, 59-64. doi: 10.1111/j.1471-6402.2006.00262.x

Preacher, K. J., & Hayes, A. F. (2008). Contemporary approaches to assessing mediation in communication research. In A. F. Hayes, M. D. Slater, & L. B. Snyder (Eds.), *The Sage sourcebook of advanced data analysis methods for communication research* (pp. 13-54). Thousand Oaks, CA: Sage.

Rudman, L. A., & Mescher, K. (2012). Of animals and objects: Men's implicit dehumanization of women and likelihood of sexual aggression. *Personality and Social Psychology Bulletin, 38*, 734-746. doi: 10.1177/0146167212436401

Simmel, G. (1950). *The sociology of Georg Simmel* (K. H. Wolff, Trans.). Glencoe, IL: Free Press.

Simmons, J. P., Nelson, L. D., & Simonsohn, U. (2011). False-positive psychology: Undisclosed flexibility in data collection and analysis allows presenting anything

as significant. *Psychological Science*, *22*, 1359-1366.

Strelan, P., & Hargreaves, D. (2005). Women who objectify other women: The vicious circle of objectification. *Sex Roles, 52*, 707-712. doi: 10.1007/s11199-005-3737-3

Thoemmes, F., MacKinnon, D. P., & Reiser, M. R. (2010). Power analysis for complex mediational designs using Monte Carlo methods. *Structural Equation Modeling, 17*, 510-534. doi: 10.1080/10705511.2010.489379

Trevino, L. K., Lengel, R. H., & Daft, R. L. (1987). Media symbolism, media rich-

ness, and media choice in organizations: A symbolic interactionist perspective. *Communication Research, 14*, 553-574.

Waytz, A., & Epley, N. (2012). Social connection enables dehumanization. *Journal of Experimental Social Psychology, 48*, 70-76. doi: 10.1016/j.jesp.2011.07.012

Zubriggen, E. L., Ramsey, L. R., & Jaworski, B. K. (2011). Self- and partner-objectification in romantic relationships: Associations with media consumption and relationship satisfaction. *Sex Roles*, *64*, 449-462. doi: 10.1007/s11199-011-9933-4