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Research article

Are sexualized women complete human beings? Why men and women dehumanize sexually objectified women

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Abstract

Focusing on the dehumanization of sexually objectified targets, study 1 tested the extent to which objectified and non-objectified male and female publicity photos were associated with human compared to animal concepts. Results confirmed the hypothesis that, among all targets, only objectified women were associated with less human concepts. This pattern of results emerged for both male and female participants but likely for different reasons. Study 2 directly looked at female and male participants' affinity with sexually objectified women. Results indicated that the more women distanced themselves from sexually objectified women the more they dehumanized them, whereas men's sexual attraction moderated their tendency to dehumanize female targets. In study 3, this latter motivation was operationalized as the activation of a sex goal and showed to trigger man's but not woman's dehumanization of female targets. Overall, the present set of studies show that only sexually objectified women are dehumanized by both men and women but for different reasons. Whereas sexual attraction shifts a men's focus of a female target away from her personality onto her body triggering a dehumanization process, women are more inclined to dehumanize their sexually objectified counterparts the more they distance themselves from these sexualized representations of their gender category. Copyright © 2011 John Wiley & Sons, Ltd.

We live in a man's world, mostly heterosexual, that potentially objectifies the female body. This premise is the starting point of objectification theory (Fredrickson & Roberts, 1997) that states that when objectified, women are treated as bodies that exist for the use or consumption of others, stripped of their individuality and personality. Most of the work on objectification theory has provided an in-depth analysis of the psychological and physical consequences for women to live in a culture that potentially objectifies their body (see Calogero, Davis, & Thompson, 2005; Szymanski & Henning, 2007 for recent examples). Still, little is known about the perception of sexually objectified depictions *per se*. On a daily basis, we are surrounded by sexually objectified images of men and women; their denuded bodies made instrumental to sell some product and attract our attention. Given that these images abound, it becomes important to show empirically that such depictions can lead to degrading perceptions especially when women are sexually objectified. Following the above definition of Fredrickson and Roberts (1997), a potential degrading consequence of the sexual objectification of women is the loss of their individuality and personality, suggesting the existence of subtle forms of dehumanization. Therefore, the current set of studies aims to show whether sexually objectified women are dehumanized and why this might happen.

OBJECTIFICATION AND SEXUAL OBJECTIFICATION

Objectification is a concept that only recently attracted the attention of social psychologists but has known a long history in philosophy. In this philosophical approach, Nussbaum (1999) has emphasized the importance of the instrumentality of the other in defining objectification. When objectified, a person is judged for his or her usefulness and becomes a tool for one's own purpose. This definition implies that once a person becomes instrumental to satisfy a goal, the person becomes interesting and more attractive to those for whom the goal is important. Gruenfeld, Inesi, Magee, and Galinsky (2008) have used this reasoning to distinguish objectification from related concepts, such as dehumanization and stereotyping that are mostly associated with negative appraisals. Defined in this way, objectification is not necessarily negative, denigrating, or dehumanizing as long as it occurs in a context of equality, respect, and consent (Nussbaum, 1999).

However, when it comes to sexual objectification, becoming instrumental in the eyes of an observer can imply that one is not seen as a complete human being anymore. Looking back at Fredrickson and Roberts's (1997) definition that is reported at the beginning of this article, two elements

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emerge. One emphasizes the instrumental use of another person as a product of consumption, whereas the other contains references to subtle forms of dehumanization. Indeed, sexual objectification implies that a one-sided focus on the body and on its sexual functions makes a person instrumental, for example, for commercial purposes or one's sexual desires. When this instrumental use of another person even involves a denial of human characteristics, it becomes denigrating for the objectified. As a result, if one wants to understand whether sexual objectification is denigrating, dehumanization seems to be a key concept. For this reason, the present research will look at the dehumanization of sexually objectified male and female targets in advertisement.

DEHUMANIZATION

Dehumanization involves viewing others as less than human. Whereas historically dehumanization has been mostly reported in the domains of violence and conflict, recent theoretical developments have extended the concept underlining its relevance in a large variety of social domains (Haslam, 2006; Leyens, Demoulin, Vaes, Gaunt, & Paladino, 2007; Leyens et al., 2000). One such broadened conception stems from Leyens et al. (2000, 2003, 2007) and has shown that people reserve full humanness to describe their own group, attributing a somewhat lesser humanity to the out-group (Leyens et al., 2001; Paladino et al., 2002). The term *infrahumanization* was used to coin this phenomenon, emphasizing its relative nature. To be *infrahumanized*, the out-group is not necessarily completely deprived of humanness or explicitly associated with a non-human entity; it suffices that the other is attributed less human qualities relative to the in-group. Complimentary to *infrahumanization* theory, Haslam (2006) (Haslam, Loughnan, Kashima, & Bain, 2008 for reviews) broadened the concept of dehumanization, differentiating between *animalistic* (i.e., the denial of uniquely human characteristics that distinguish us from animals as civility and refinement) and *mechanistic dehumanization* (i.e., the denial of core human nature traits, such as emotionality, openness, and depth). In the present set of studies, *animalistic dehumanization* was measured given that other work on objectification already focused on *mechanistic dehumanization*. Indeed, Heflick and Goldenberg (2009) showed that focusing on the body compared to the personality of a famous female target (Sarah Palin or Angelina Jolie) decreased their description in terms of human nature traits. No male targets were used in this research, making it hard to infer whether the dehumanization of objectified targets is specific to women or occurs also for men.

Research that focused on both male and female sexually objectified targets only gathered indirect evidence on the process of dehumanization, measuring concepts that are related but not equivalent to dehumanization. Moreover, this research has reported inconsistent results. Focusing on the attribution of complex mental states, Loughnan et al. (2010) compared dressed and scarcely dressed pictures of male and female targets and showed that the sexualized representations of both genders decreased the attribution of mind and lowered the moral status of both targets. In contrast, Cikara, Eberhardt, and Fiske (2011)

focused on mental capacities and showed that only sexualized female targets, as compared with sexualized men, were less closely associated with agency—a fundamental dimension of mind attribution (Gray, Gray, & Wegener, 2007)—and less likely to engage brain regions that are associated with mental state attributions. Comparing both male and female targets, Heflick, Goldenberg, Cooper, and Puvia (2011) measured judgments of warmth, competence, and morality and showed that only the judgments of female but not male targets lowered on all these dimensions when participants were asked to focus on the target's appearance compared with their personality. Even though all these studies interpreted their findings as hinting to subtle forms of dehumanization, no direct evidence was obtained. Therefore, in a first study, we will compare male and female objectified and non-objectified targets and directly measure the extent to which they elicit human *versus* animal associations. Moreover, for the first time the present research will adopt an implicit measure to observe these dehumanizing perceptions.

In line with most feminist theories, we predicted to find only a specific denigrating and dehumanizing quality of female sexual objectification (e.g., Bartky, 1990; Fredrickson & Roberts, 1997; Ortner, 1974). Different reasons can lie at the basis of these distinct perceptions of sexually objectified targets of both genders. Evolutionary theorists, for example, suggest that a female compared with a male body attracts more attention as it gives more information on a woman's fertility and reproductive value (Buss, 1989; Singh, 1993). Such a shift in attention more easily reduces a woman to her bodily features and more likely diminishes her value as a person. Alternatively, the female body and the sexuality it potentially emanates has obtained a different cultural meaning than the sexuality of the male body. Compared with male sexuality, female sexuality is more closely associated with submissiveness (e.g., Sanchez, Kiefer, & Ybarra, 2006) and could therefore be linked with a lack of agency or more generally with denigrating and less human qualities. These mechanisms are neither mutually exclusive, nor are they meant to be exhaustive. The main point is that they both suggest that female sexual objectification is more likely dehumanizing compared with the sexualization of male targets.

WHY DO MEN AND WOMEN DEHUMANIZE SEXUALLY OBJECTIFIED FEMALE TARGETS?

The present research not only wants to show that sexually objectified women are dehumanized; it also aims to get a better understanding why this might happen. Objectification theory, as formulated by Fredrickson and Roberts (1997), presumes that a man's heterosexuality lies at the basis of the sexual objectification of women. Although we concur with this assumption, whether it is mainly men (instead of women) that dehumanize objectified women (*versus* men) still needs to be shown. Recent research has suggested that women also objectify women (Strelan & Hargreaves, 2005), and the above-mentioned findings on mind attribution and the dehumanization of objectified women (Heflick & Goldenberg, 2009; Heflick et al., 2011; Loughnan et al., 2010) were all

found for both male and female participants. Therefore, we expect both men and women to dehumanize sexually objectified women, but we hypothesize that they do so for different reasons.

For women, sexually objectified female targets constitute the in-group but at the same time potentially pose a problem. Sexually objectified depictions often show women in sexually provocative and humiliating positions and present quite often an unattainable beauty image. Moreover, research has shown that objectified women are judged as less competent (Heflick & Goldenberg, 2009), warm, moral (Heflick et al., 2011), mindful (Cikara et al., 2011; Loughnan et al., 2010) and intelligent (Archer, Iritani, Kimes, & Barrios, 1983), making their depictions potentially threatening for the perception of the entire category of women. In the present set of studies, we hypothesize that the extent to which women distance themselves from sexually objectified female targets determines their level of dehumanization. For these women, sexually objectified female targets become a subgroup from which they want to distance themselves and therefore more likely treat as an out-group to dehumanize.

Men are expected to dehumanize sexually objectified women for other reasons. Here, sexual attraction is expected to play a major role. Different lines of research have shown that thinking about sex attunes men more to the instrumentality of a female target for sexual purposes when they are in a high power position (Gruenfeld et al., 2008) and increases the likelihood that they hire a female target not because of her competence but for the way she looks (Rudman & Borgida, 1995). In a similar vein, objectification theory has suggested that men attend especially to a woman's sexual function when confronted with sexually objectified depictions of female targets (Fredrickson & Roberts, 1997). This increase in focus on the body and appearance could then imply that men lose out on the personal and individual qualities of the sexually objectified target, seeing her as a lesser human being. Specifically, we hypothesize that men are expected to dehumanize sexually objectified female targets the more they find them sexually attractive.

OVERVIEW OF THE STUDIES

These various hypotheses will be tested in three studies. Study 1 directly aims to verify that only female sexual objectification is dehumanizing and that both male and female participants engage in the process. Studies 2 and 3 are specifically designed to unveil the distinct motivations that underlie man and woman's tendency to dehumanize sexually objectified women. In study 2, male and female participants' affinity with sexually objectified (*versus* personalized) female targets is measured, and its moderating role in the dehumanization of objectified female targets will be tested. Whereas women are expected to distance themselves from depictions of sexually objectified female targets, men are expected to be sexually attracted to them. In both cases, these opposing tendencies are hypothesized to moderate the effect of gender on the dehumanization of sexually objectified female targets. Study 3 aims to verify the role of a sex goal in men's sexual objectification of women,

investigating both the instrumental and the dehumanizing side of this process. Activating a sex goal in men and women, study 3 will verify the extent to which a sex prime changes the perception of men towards women focusing more on their physical features and making them more instrumental for sexual purposes. At the same time, priming sex is expected to make men, but not women, more inclined to dehumanize female targets to which they feel attracted.

STUDY 1

In this study, both male and female participants were presented with either male or female pictures including both objectified and non-objectified exemplars. In a single-category implicit association test (SC-IAT, Karpinski & Steinman, 2006), these pictures had to be categorized together with a set of human and animal-related words. The advantage of the SC-IAT is that it measures the absolute strength of single associations in a non-comparative context, allowing us to test associations with male and female targets separately. We hypothesized that objectified female targets received less human associations than any of the other types of targets and that this pattern occurred both for male and female participants.

Method

Participants

A total of 190 participants (92 female and 98 male) who were recruited at a large university in Italy volunteered in the present study. Their age ranged from 18 to 32 years old ($M=22.78$; $SD=2.65$). Only Italian native-speaking participants who indicated to be heterosexual were retained. As a consequence, 17 participants had to be discarded from further analyses because they indicated to be homosexual or bisexual ($N=12$) or to be non-native Italian speakers ($N=4$). In addition, one participant was excluded because more than 40% of his responses were erroneous. As a result, we retained a total of 173 participants (87 female and 86 male).

Stimuli

Images. In order to capture the concept of objectification best, a bottom-up approach was used asking pretest participants to judge the objectified character of male and female depictions rather than imposing a definition of the concept. Therefore, a large number of male and female pictures taken from advertisements that appeared in the main Italian magazines for men and women were gathered. Only advertisements that contained the picture of a single man or a single woman were retained, resulting in a set of 315 pictures. A further selection was made based on the different kinds of representations that were proposed by Kermol and Beltrame (2001). These authors studied the representations of men and women on a representative sample of Italian advertisement and individuated a total of 26 categories (14 for women, like *objectified women*, *sportive women*, *mother figures*, and *career women* and 12 for

men, like *objectified men*, *father figures*, *sportive men*, and *career men*). Each of the gathered pictures was assigned to one of these 26 categories, and at least two pictures in each category were retained as targets in the pretest. In this way, we could ascertain that we had a wide range of pictures that represented the whole spectrum of male and female advertisement. All references to the brand and the product were removed from each picture. Two sets of pictures were created, one containing 42 female pictures and another containing 41 male pictures. Each picture was shown to participants in a random order and had to be judged on the extent to which the woman or man in the picture was objectified (1 = *not at all* to 7 = *totally*). A total of 38 (19 male and 19 female) participants either judged the set of female or male pictures. These participants were different from those of the main studies but were taken from the same pool of participants. Their judgments were used to select a total of 20 pictures, 10 for each gender category, and within each category half of them were judged to be objectified, whereas the other half were non-objectified. Looking at the pilot test judgments, the objectified pictures were clearly judged as such ($M=5.02$, $SD=1.09$), whereas the other half were judged as not objectified ($M=2.41$, $SD=1.04$), $F(1, 34)=126.72$, $p<.001$, $\eta_p^2=0.79$. Importantly, this difference was independent of the gender of participants or of the target showing that both male and female pictures were equally judged as being objectified or not ($p>.23$). The resulting objectified pictures showed male or female targets or body parts of them (e.g., torso without a head) that were often depicted half naked or in a sexually provocative position. In contrast, the non-objectified pictures showed male and female targets from the waist up with their face in the center of the picture or targets that were doing day-to-day activities.¹ Given that all non-objectified pictures emphasized the target's face, we refer to these pictures as personalized pictures. When making the selection, attention was paid to the attractiveness of the targets that was also judged by the same pilot test participants. In both cases, objectified and personalized male and female pictures were judged equally attractive ($F<1$). Interestingly, male and female participants did not agree on the attractiveness of the female pictures. Whereas male participants found the objectified ($M=5.18$, $SD=0.54$) women more attractive than the personalized ones [$M=4.38$, $SD=0.87$, $F(1, 8)=16.41$, $p=.004$, $\eta_p^2=0.67$], female participants thought the reverse was true [$F(1, 8)=6.48$, $p=.034$, $\eta_p^2=0.45$; $M=4.33$, $SD=1.16$ and $M=5.44$, $SD=1.04$, for objectified and personalized female pictures, respectively]. There was no combination of pictures that could avoid this interaction effect.

In addition, the selected pictures were controlled on their facial prominence. In this way, the pictures were not only controlled on a subjective criterion but also on the basis of an objective criterion. In order to do this, the face-ism index of Archer et al. (1983) was calculated, measuring the amount of face divided by the total amount of the body (head included) that was shown in each picture. As a result, this index could vary from 0 to 1, indicating that no face was shown on one extreme and that the picture only contained the target's face on the other extreme. Whereas the face-ism index was always

significantly higher for personalized ($M=0.65$, $SD=0.34$ and $M=0.48$, $SD=0.29$ for female and male targets, respectively) than for objectified pictures [$M=0.17$, $SD=0.11$ and $M=0.20$, $SD=0.32$, $t(4)=2.84$, $p<.05$ and $t(4)=2.95$, $p<.05$ for female and male targets, respectively], we selected the pictures so that they did not differ between gender. As such, both objectified male and female and personalized male and female pictures had comparable face-ism indices (all t 's < 1).

Words. A total of 10 words, five that were linked to humanness (culture, foot, nose, values, and tradition) and five that referred to the animal reign (nature, paw, snout, instinct, and hibernation) were selected on the basis of two separate pilot tests. In one test, a sample of 25 participants judged the animalness *versus* humanness of the words, whereas a smaller sample of 15 participants independently judged the valence of the words. The human words were significantly seen as more uniquely human ($M=7.94$, $SD=0.70$) than the animal ones ($M=2.43$, $SD=0.77$) on a nine-point Likert scale, $t(24)=21.56$, $p<.001$, but their valence, which was measured on a $-3/+3$ Likert-type scale, did not differ ($t<1$; $M=1.31$, $SD=0.78$ and $M=1.04$, $SD=0.58$ for human-related and animal-related words, respectively).

Procedure

Participants were presented with a double SC-IAT that was divided in five blocks. They were requested to categorize, as fast and accurate as possible, a mixed set of stimuli using two separate keys of the computer keyboard. Following a training block of 20 trials in which participants only had to categorize words as related to animals or humans, two critical SC-IATs of 60 trials were created, one that looked at the human and animal associations with objectified pictures (i.e., second and third blocks) and one that looked at the same associations with personalized pictures (i.e., the fourth and fifth blocks). Both SC-IATs followed similar procedures, in that participants were asked in one block to categorize the pictures using the animal key, whereas they had to press the human key to categorize the pictures in the other block. Half of participants only saw male pictures, whereas the other half was presented with only female pictures. The order in which the various blocks appeared was controlled, counterbalancing compatible (animal objectified picture/human personalized picture) and incompatible blocks (animal personalized picture/human objectified picture) and the order of the presentation of the two SC-IATs.

At the end, participants had to indicate their age, gender, sexual orientation, and mother tongue and were fully debriefed and thanked for their participation.

Results

Data were treated using the *D*-score algorithm for IAT data proposed by Greenwald, Nosek, and Banaji (2003). As a result, two SC-IAT *D*-scores were calculated, one for objectified pictures and one for personalized pictures. In both cases, higher numbers indicated an increased preference to associate human concepts to the target at hand. These two indices were

¹The pictures can be obtained on request from the first author.

analyzed using a 2 (target: objectified *versus* personalized) \times 2 (participants' gender: male *versus* female) \times 2 (targets' gender: male *versus* female) \times 2 (SC-IAT order: objectified SC-IAT first *versus* personalized SC-IAT first) \times 2 (trial order: compatible trials first *versus* incompatible trials first) mixed analysis of variance (ANOVA) in which only the first variable was manipulated within participants. The expected target \times target's gender interaction emerged from this analysis [$F(1, 157) = 5.27, p = .023, \eta_p^2 = 0.032$]. Looking at the means in Figure 1, it is clear that all targets were significantly humanized ($M = 0.15, SD = 0.30, M = 0.15, SD = 0.32$ and $M = 0.12, SD = 0.37$ for personalized women, objectified men and personalized men, respectively) except for the objectified women ($M = 0.01, SD = 0.40$). In addition, contrast analyses showed that whereas female objectified targets were dehumanized compared with objectified men [$F(1, 157) = 7.07, p = .009, \eta_p^2 = 0.043$], a similar comparison on the personalized targets was not significant ($F < 1$). Also within targets' gender, the objectified female targets were significantly more dehumanized than the personalized women [$F(1, 157) = 7.10, p = .009, \eta_p^2 = 0.043$], whereas depicting men in an objectified or personalized way did not make any difference in terms of human associations ($F < 1$).² As expected, the three-way interaction including participants' gender was not significant.

Discussion

This first study measured participants' human associations with objectified and personalized male and female targets. When participants were confronted with either male or female pictures, objectified women were the only targets that were less associated with human-related words. This effect is clearly in line with our hypothesis and suggests that only sexually objectified women are dehumanized compared with equally objectified pictures of male targets.

As expected, both male and female participants dehumanized the objectified female targets to the same extent. Indeed, the reported interaction was not qualified by participants' gender. Even though both genders show a similar pattern of results, we believe they do so for different reasons. Already, the results of the pretest gave us some insight that male and female participants rated sexually objectified targets differently. Whereas men thought that the objectified female targets were more attractive than the personalized pictures, women reported that the reverse was true. We believe that

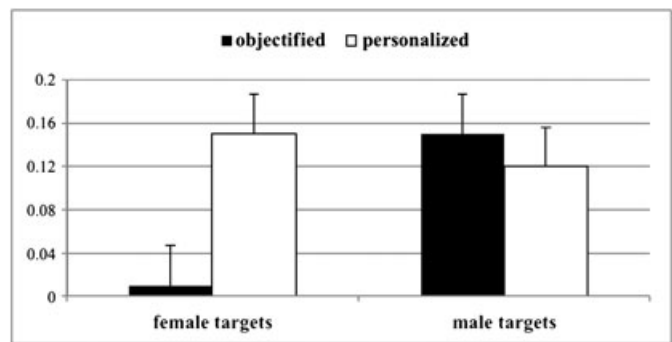


Figure 1. Mean SC-IAT *D*-scores (collapsed across participants' gender) for objectified and personalized male and female targets (study 1)

these opposing perceptions, at least partly, reveal the different underlying mechanisms for men and women that drive the dehumanization of sexually objectified targets. Whereas they are dehumanized because they are sexually attractive for men, they receive similar non-human associations because women tend to distance themselves from this female representation. In the following studies, these different underlying mechanisms will be tested.

STUDY 2

Study 2 was specifically designed to disentangle the opposing tendencies with which both gender groups dehumanize sexually objectified female targets. For women, sexually objectified female targets either represent members of their gender group with which they can identify or a female subgroup from which they can distance themselves. In order to dehumanize sexually objectified female targets, we propose that women opt for the latter possibility taking distance from sexualized representations of their gender group. Often, sexually objectified women are not perceived in a positive light. They lack warmth, competence, morality (Heflick & Goldenberg, 2009; Heflick et al., 2011), and mindfulness (Cikara et al., 2011; Loughnan et al., 2010) and emanate a sexuality that is associated with submissiveness (Sanchez et al., 2006). These negative perceptions could generalize and reflect on the whole female category and likely motivate women to distance themselves from sexualized representations of their gender category treating them as if they were out-group members. Therefore, we expect women to dehumanize sexually objectified female targets the more they distance themselves from these representations.

Men are not expected to be motivated to distance themselves from sexually objectified female targets; instead, they are more likely sexually attracted to them. In line with previous research that has shown that sex attunes men to focus mostly on a woman's physical features, losing out on her personal and intellectual qualities (Gruenfeld et al., 2008; Rudman & Borgida, 1995), we predict that men more likely dehumanize sexually objectified female targets the more they are sexually attracted to them.

²Apart from the expected interaction, some other less important effects emerged. First of all, a trial order \times target interaction emerged [$F(1,157) = 12.29, p < .01, \eta_p^2 = .073$]. Overall, objectified pictures were less associated with humanness than personalized pictures when participants were presented with compatible trials first (e.g. animal objectified picture/human personalized picture). Instead, when they had to categorize incompatible trials first (e.g. (animal personalized picture/human objectified picture), objectified pictures tended to be humanized more compared with the personalized pictures. In addition, the analysis revealed a participants' gender main effect [$F(1,157) = 4.80, p < .05, \eta_p^2 = .030$], indicating that female participants tended to humanize the targets significantly more than male participants. This main effect, however, was qualified by a participants' gender \times trial order [$F(1,157) = 5.73, p < .05, \eta_p^2 = .035$] and a participants' gender \times trial order \times SC-IAT order interaction [$F(1,157) = 6.41, p < .05, \eta_p^2 = .039$], indicating that this general tendency was true except for the compatible trials first/personalized SC-IAT first condition, in which male participants tended to humanize the targets more compared with female participants. Given that none of these interactions qualifies the hypothesized effect, they are less important for the purpose of the present manuscript.

Concretely, in study 2 both male and female participants were first presented with the SC-IAT used in study 1 using only objectified and personalized female pictures. Subsequently, participants were asked to freely categorize the female pictures they saw in the SC-IAT and indicate their level of closeness with each subcategory they made. Both underlying mechanisms that are proposed for men and women assume, first of all, that they differentiate between objectified and personalized female pictures and, secondly, that their feelings of closeness or distance differ for each of these representations. Therefore, an affinity index was calculated that combined the extent to which participants differentiated between objectified and personalized targets when categorizing the female pictures and the extent to which they showed a different level of closeness with each of the categories they made. Only in this way could we assure that participants indicated their closeness towards a category of women (objectified *versus* personalized) that was not necessarily determined by some peculiar characteristic of a separate female target. Moreover, using a general judgment of closeness allowed asking the same question to male and female participants making their judgments comparable and permitted to use this index as a moderator of dehumanization. Specifically, we expect that the more female participants indicate to feel distant from those subcategories that mainly contain sexually objectified women, the more they are expected to dehumanize them. In contrast, men are expected to do the opposite, dehumanizing sexualized female targets the more they indicate to feel close towards those subcategories that contain a lot of sexually objectified female targets.

Method

Participants

A total of 91 participants (51 female and 40 male) volunteered to take part in the present study. Their age ranged from 18 to 31 years old ($M=21.21$; $SD=3.28$). Six participants were discarded from further analysis, two because they were non-native Italian speakers and four because they were not heterosexual.

Procedure

An identical SC-IAT to the one used in Study 1 including only objectified and personalized female pictures was presented. Afterwards, participants were asked to judge, categorize, and indicate their affinity with the female targets that appeared earlier in the computer task. First, participants had to judge the women that were depicted on the photos, indicating the extent to which they found them sexy, arousing, beautiful, superficial, and vulgar, using a seven-point scale (ranging from 1 = *not at all* to 7 = *extremely*). Then, participants had to make free but significant categories clustering the 10 female photos. Participants were asked to name each category and to indicate how close they felt towards that category using a 10-point scale (ranging from 1 = *very distant* to 10 = *very close*).

Finally, participants had to indicate their age, gender, sexual orientation, and mother tongue. Participants were fully debriefed and thanked for their participation.

Results

First of all, an affinity index was calculated weighing both the extent to which participants made categories that differentiated between objectified and personalized female pictures and the closeness they reported to feel towards each category. Specifically, the following formula was used:

$$\text{Mean}(((\#obj - \#pers) * \text{close}) / \# \text{categ})$$

This formula weighs the number of objectified pictures ($\#obj$) relative to the number of personalized pictures ($\#pers$) in each category and multiplies this relative number with the extent to which participants expressed to feel close towards that category. This number is then controlled for the total number of categories the participant made ($\# \text{categ}$), and finally the mean is taken. As such, this index becomes positive and larger when participants feel more connected with those categories in which they included a large number of objectified female pictures or negative when personalized pictures outnumber the objectified ones. Importantly, the present index is as much dependent on the sharpness with which participants subtype objectified and personalized pictures (if they do not, the index becomes 0) and the extent to which they feel close with each of these subcategories. In this way, the present index is a good operationalization of the process of interest as it measures both participants' tendency to differentiate between the different female targets and the extent to which they feel close towards these subcategories.

This affinity index was correlated with the mean amount to which participants judged objectified or personalized female targets as sexy, arousing, beautiful, vulgar, and superficial (see Table 1). For female participants, the affinity index was only significantly correlated with the extent to which they judged the objectified female pictures as vulgar ($r = -.50$) and superficial ($r = -.37$). This result confirms that the affinity index in the case of female participants is more responsive to avoidance judgments, so that female participants who feel less affinity with objectified depictions of female targets tend to distance themselves from this subcategory of women.

For male participants, the affinity index only correlated significantly with the extent to which they judged the objectified female pictures as sexy ($r = .48$), showing that their affinity with objectified women mostly reflected judgments of sexual attraction. Importantly, the affinity index for both men and women did not correlate significantly with any of the other dimensions or with any of the judgments for personalized pictures (see Table 1).

In order to verify whether participants' affinity with the objectified female subgroup moderated the dehumanization of objectified female pictures, participants with low and high affinity towards objectified targets were compared. Given that men and women had significantly different mean affinity scores, independent median splits were calculated for men ($Me = -0.88$) and for women ($Me = -2.56$) so that they could be treated as orthogonal factors.³ As in Study 1, two SC-IAT

³Similar results were obtained treating the affinity index as a continuous variable in a regression analysis.

Table 1. Means and correlations of participants' judgments of the objectified and personalized pictures and the affinity index (Study 2)

		Female participants		Male participants	
		Mean (SD)	<i>r</i> with affinity	Mean (SD)	<i>r</i> with affinity
Objectified women	Sexy	4.46 (1.44)	-.07	5.17 (.82)	.43*
	Arousing	3.87 (1.75)	.02	5.13 (1.02)	.17
	Beautiful	3.59 (1.05)	-.001	4.76 (.82)	.26
	Vulgar	4.85 (1.32)	-.50*	3.81 (1.32)	-.05
	Superficial	4.32 (1.57)	-.37*	3.67 (1.44)	-.14
Personalized women	Sexy	2.77 (1.14)	.12	3.62 (1.10)	-.04
	Arousing	1.99 (1.02)	.11	3.23 (1.20)	-.24
	Beautiful	4.95 (1.02)	-.17	5.30 (.88)	-.22
	Vulgar	1.14 (.35)	.27	1.30 (.36)	.16
	Superficial	1.84 (.93)	.09	1.96 (.91)	-.20

* $p < .05$.

D-scores were calculated, one for the objectified and one for the personalized female pictures. The resulting indices were analyzed using a 2 (target: objectified versus personalized) \times 2 (gender: female versus male) \times 2 (affinity: low versus high) \times 2 (SC-IAT order: objectified SC-IAT first versus personalized SC-IAT first) \times 2 (trial order: compatible trials first versus incompatible trials first) mixed ANOVA in which only the first variable was manipulated within participants. First of all, it is important to note that the target main effect was not significant. Still, comparing the mean *D*-scores of objectified ($M=0.03$, $SD=0.36$) and personalized ($M=0.08$, $SD=0.30$) female pictures with zero, it becomes clear that only the *D*-score of personalized female targets differs significantly from zero [$t(84)=2.31$, $p=0.02$], indicating that only these targets are significantly associated with human words compared with animal words ($t < 1$, for objectified female targets). More importantly, the expected target \times gender \times affinity interaction showed to be significant [$F(1, 69)=6.10$, $p=.02$, $\eta_p^2=0.08$]. Separate analyses were conducted for female and male participants. For female participants, those who reported low affinity levels with objectified women tended to dehumanize them ($M=-0.10$, $SD=0.34$) more than those who had relatively higher affinity levels [$M=0.17$, $SD=0.34$, $F(1, 47)=4.37$, $p=0.04$, $\eta_p^2=0.08$]. No differences occurred for personalized female targets ($F < 1$) (see Figure 2). For male participants, instead, objectified women ($M=-0.02$, $SD=0.42$) were almost significantly seen as less human than their personalized counterparts ($M=0.16$, $SD=0.28$) but only for those men that indicated to have high affinity levels [$F(1, 34)=3.74$, $p=.06$, $\eta_p^2=0.10$]. Male participants who reported to have low affinity towards objectified women did not humanize objectified and personalized female targets differently ($F < 1$) and tended to see both of them as not really human (see Figure 2).⁴

⁴From this analysis, also some less important interaction effects emerged; none of them however qualified the predicted three-way interaction. First of all, a target \times trial order interaction showed to be significant [$F(1, 69)=6.48$, $p=.01$; $\eta_p^2=.086$]. In line with other studies on the IAT, objectified relative to personalized women were especially dehumanized when participants responded first to compatible compared with incompatible trials. In addition, a target \times SC-IAT order \times gender interaction emerged [$F(1, 69)=12.06$, $p=.001$; $\eta_p^2=.149$]. This interaction showed that, whereas female participants especially dehumanized objectified women compared with personalized women when they first had to do the objectified SC-IAT, males showed the opposite tendency.

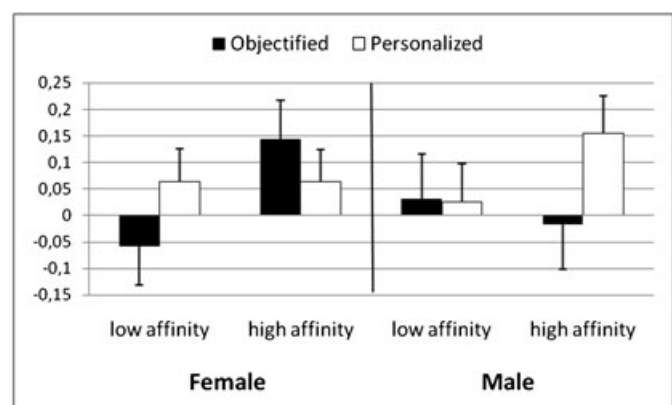


Figure 2. Mean SC-IAT *D*-scores for objectified and personalized female targets as a function of male and women affinity with sexually objectified female targets (Study 2)

Discussion

The aim of Study 2 was to test the different motivations that underlie the tendency of men and women to dehumanize sexually objectified women. To test this hypothesis, an affinity index was calculated that showed to have a different meaning for male and female participants. Whereas this index mainly correlated negatively with judgments of vulgarity and superficiality for female participants, the same index was positively correlated with men's judgments of sexiness. As a result, female participants' affinity with sexually objectified women was related with negative judgments indicating their tendency to distance from this female subgroup. For male participants, instead, the same index expressed their sexual attraction toward sexually objectified women.

As expected, this index moderated male and female participants' dehumanization of objectified and personalized women. For women, this result confirmed that their perceived distance from the sexually objectified female subcategory plays a key role in moderating the extent to which female participants tend to dehumanize them. The more they distance themselves from these sexualized depictions of their gender category, retained vulgar and superficial, the more they tend to dehumanize them. Likely, these women treat sexually objectified female targets as if they were out-group members and dehumanize them as a result.

For male participants, it was especially those men who felt close to sexually objectified women who dehumanized them more than personalized women, replicating the result of Study 1. Given that men's affiliation index was correlated with the extent to which they judged the objectified women to be sexy, this result suggests that men dehumanize sexually objectified compared with personalized women when they are sexually attracted to the objectified female targets. At the same time, however, male participants who indicated feeling more distant from objectified female targets saw objectified and personalized women as equally (non) human. This result should be interpreted in light of the way the affinity index was calculated. This index made the affinity judgments of objectified and personalized women dependent on one another, meaning that those men who reported feeling more distant from the objectified women actually felt closer to the personalized female targets at the same time. Apparently, this closeness results in the loss of humanity of the personalized female targets.

This result opens an interesting possibility as it suggests that for men it is not so much the type of female target (objectified or personalized) that determines whether they tend to dehumanize her but the relational goal they perceive to have with a woman. Even though the affinity index for men was not related to the sexiness of personalized women, they showed a tendency to see them more arousing and beautiful the closer they felt to them ($r = -.24$ and $r = -.22$ for arousing and beauty, respectively). Therefore, Study 3 directly manipulated the activation of a sex goal while keeping the type of female target constant. In this way, we tested the hypothesis that changes in a man's relational goal toward a woman shifts his focus to her body and sexual functions, potentially separating out her personality and human qualities and resulting in her dehumanization.

STUDY 3

The present study aimed to verify whether activating a sex goal moderates male but not female participants' tendency to dehumanize good-looking female targets. Different research findings indicated that activating a sex goal in men could have negative consequences. Mussweiler and Förster (2000), for example, showed that men behave generally more aggressively towards targets when a sex goal is activated. More specifically in the context of female targets, Rudman and Borgida (1995) activated thoughts about sex and found that it increased men's sexualized behavior toward a female interviewee and enhanced the possibility that she was hired for her looks and not for her level of competence. Gruenfeld et al. (2008) found that activating a sex goal made high-power men more likely to work with a female target who did not have great abilities to do a collaborative task but who was instrumental for sexual purposes. Taken together, these findings insinuate that when a sex goal is activated, men tend to focus on a woman's appearance and her sexual functions. This shift in perception increases the likelihood that an attractive female target becomes instrumental to fulfill a man's sex goal. As such, she becomes the object of his sexual desire, creating the

conditions under which we predict men more likely dehumanize female targets.

Very little research has looked at the effect of activating a sex goal on female participants. Mussweiler and Förster (2000) found that even though a semantic link between sex and aggression also exists for women, it does not make them behave more aggressively. Instead, women tend to judge the behavior of others as more aggressive when they are primed with sex. According to the authors, this result mirrors the typical experience of both gender groups with sex and aggression. Indeed, on average, men are more likely to behave aggressively in sexual situations than women (e.g., Koss, Gidycz, & Wisniewski, 1987). Therefore, we do not expect women to react derogatively or in a dehumanizing way towards other female targets when thoughts about sex are activated.

In order to test these hypotheses, male and female participants were primed with sex-related or neutral words in an anagram before they performed a SC-IAT that measured their human associations with female targets. Importantly, the female targets in this study were not sexually objectified *per se* but could be objectified as a result of the induction of a sex goal. Such an approach was preferred because in this study our primary interest lay on understanding the role of a shift in the type of relation with the female targets rather than in a change of the type of female target whom participants were confronted with. On the other hand, it was important to avoid that the pictures themselves would induce sex-related thoughts as would be the case when showing sexually objectified pictures.

In order to verify whether our participants sexually objectified these female targets as a function of the sex prime, two additional tasks were added that preceded the SC-IAT. The first task was adapted from Gruenfeld et al. (2008) and aimed to show that a sex goal made male participants objectify female targets, that is, prefer these targets because they are instrumental for their sex goal but not for their task-relevant qualities. Specifically, participants were asked to select a female collaborator for an ostensible online mathematical task. Several female collaborators were presented who were either presented as attractive but incompetent or non-attractive but competent. In line with Gruenfeld et al. (2008), we hypothesized that male participants with an active sex goal would make an instrumental choice in line with the sex goal, preferring the attractive female collaborator without mathematical skills more than men without an active sex goal. In a second task, they were asked to judge the female targets that were shown in the SC-IAT. In this way, we could ascertain that male participants with a sex goal would attribute more to the bodily features of these female targets, judging them more sexy and attractive than in the control condition. Both former tasks allowed demonstrating male participants' expected tendency to sexually objectify female targets when thoughts about sex are activated. In addition, we predict male participants in the sex prime condition to make less human associations with the female targets compared with the control condition. Female participants, instead, were not expected to change their preference for the female collaborator as a function of the sex prime and should prefer the competent but less attractive candidate in all conditions. Moreover, we did not expect the female participants to dehumanize the female targets in the SC-IAT as a function of the sex prime.

Method

Participants

Eighty heterosexual male ($N=40$) and female ($N=40$) participants were approached in the vicinity of a large Italian university. All volunteered to participate in the present study. Their age ranged from 19 to 30 years old ($M=23.56$, $SD=2.38$). Two participants were non-native Italian speakers and were excluded from further analyses.

Material

Three curricula were presented to participants, and each consisted of a picture of a female candidate and information on her degree, interests, and extra-curricular activities. These curricula were pretested, and both competence and physical attractiveness of the female candidates were measured on seven-point Likert-type scales. All curricula were different on both dimensions [$F(2, 28)=24.18$, $p<.001$, $\eta_p^2=0.64$ and $F(2, 28)=57.51$, $p<.001$, $\eta_p^2=0.80$ for competence and beauty judgments, respectively]. The candidate who was always presented first to participants in the main experiment was clearly the most beautiful ($M=6.27$, $SD=0.73$) but least competent of all ($M=3.97$, $SD=0.97$). The second candidate instead was judged as more competent ($M=6.03$, $SD=0.93$) but less beautiful ($M=3.70$, $SD=0.98$) compared with the other two. The final candidate fell in between on both dimensions ($M=5.57$, $SD=1.05$ and $M=4.50$, $SD=0.78$ for physical attractiveness and competence, respectively).

The pictures that were used in the SC-IAT were different from those of the other two studies. Five female pictures were chosen on the basis of a pilot test in which 30 participants (half male and half female) judged 40 publicity photos on the extent to which they were beautiful, sexy, and objectified. The five selected pictures were judged around the midpoint of the scale on beauty, sexiness, and objectification (all p 's $>.31$). All pictures showed women's bodies in full, from the knees up.

Procedure

Sex Prime. An anagram was presented to participants that hid six target words. In the control condition, these words were neutral (book, wave, water, hearing, seeing, and sun), whereas these words had a slight sexual meaning in the experimental condition (feel, wet, stiff, sweat, bed, and skin; see Mussweiler & Förster, 2000 for a similar procedure).

Candidate Selection. This procedure invited participants to allegedly work together on an online mathematical test with another person. Participants had to evaluate three potential candidates who were presented in a fixed order. Importantly, participants did not know how many candidates they had to evaluate or that they would only get to evaluate female candidates. The experimenter showed the curriculum and picture of each candidate, and immediately afterwards participants indicated on a seven-point scale how willing they were to do work together with each of them (1 = *not at all* to 7 = *totally*).

Judging Target Pictures. Participants then judged the five female target pictures that were to be used in the SC-IAT on five dimensions. For each picture, they were asked to indicate on a seven-point Likert scale (1 = *not at all* to 7 = *extremely*) how sexy, arousing, beautiful, vulgar, and superficial the person in the picture appeared.

Single-category Implicit Association Test. Afterwards, participants conducted a SC-IAT associating human-related and animal-related words with the five target pictures. As in previous studies, the order in which the various associations were presented (female/human or female/animal) was counterbalanced.

At the end, participants had to indicate their age, gender, sexual orientation, and mother tongue. Participants were fully debriefed and thanked for their participation.

Results

Sexually Objectified Perceptions. Verifying whether only male participants objectified the female targets as a function of the sex prime, their instrumental choices of the female candidates and their perception of the female targets that were to be presented in the SC-IAT were analyzed. First of all, participants' expressed willingness to collaborate with each of three female candidates was analyzed in a 3 [candidate: first (beautiful/less competent) versus second (less beautiful/competent) versus third (beautiful/moderately competent)] \times 2 (condition: control versus sex prime) \times 2 (gender: female versus male) mixed ANOVA in which only the first variable was manipulated within participants. All effects were significant and qualified by the three-way interaction [$F(2, 148)=19.70$, $p<.001$, $\eta_p^2=0.21$]. Separate analyses for male and female participants revealed that the gender \times condition interaction emerged significantly for male participants [$F(2, 76)=40.29$, $p<.001$, $\eta_p^2=0.52$], whereas it was not significant for female participants ($F<1$). Figure 3 depicts means separately for male and female participants. For male participants, the willingness to work with each of the female candidates changed as a function of the sex prime. Whereas the probability that the beautiful candidates were selected increased significantly after the sex prime [$F(1, 38)=56.00$, $p<.001$, $\eta_p^2=0.60$, $F(1, 38)=25.48$, $p<.001$, $\eta_p^2=0.40$ for the first and the third candidate, respectively], the chances of the most competent but least

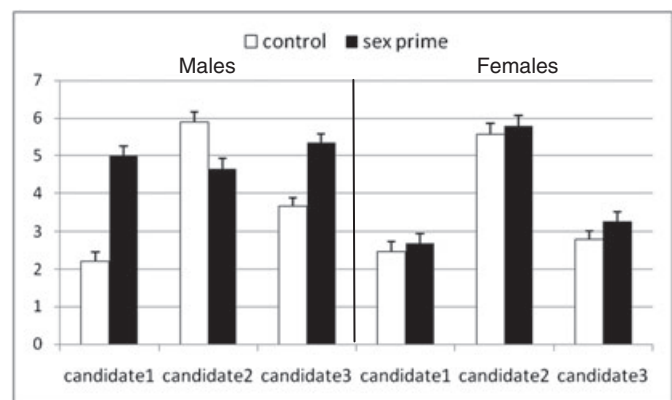


Figure 3. Mean willingness to work with a female candidate as a function of condition and participants' gender (Study 3)

beautiful candidate diminished significantly in this condition [$F(1, 38) = 13.39, p = .001, \eta_p^2 = 0.26$]. For female participants, instead, the most competent candidate was preferred over the other candidates regardless of the prime they received [$F(2, 72) = 105.99, p < .001, \eta_p^2 = 0.75$].

In a similar vein, participants' mean judgments of the five target pictures were analyzed in a 2 (condition: control *versus* sex prime) \times 2 (gender: female *versus* male) between-participants ANOVA. On all of the five dimensions of judgment, a significant interaction was found (all p 's $< .05$, all $\eta_p^2 > 0.07$). As can be seen in Table 2, all judgments of the male participants were influenced by the sex prime, whereas none of the female judgments were. As expected, for men the women in the target pictures were seen as more sexy, arousing, and beautiful in the sex prime condition. A similar finding occurred on male participants' ratings of vulgarity and superficiality. Further analysis clarified that, whereas these negative judgments were unrelated or negatively correlated with the other ratings in the control condition (r ranging from $-.27$ to $.09$), in the experimental condition these correlations became positive (r ranging from $.29$ to $.68$). This result shows that male participants in the sex prime condition not only saw the female targets as more sexy but also as more vulgar and superficial. Consequently, their idea of female attraction changed as a function of the sex prime emphasizing its physical nature. All in all, these data confirm that male, but not female, participants sexualized and objectified the female targets more following a sex rather than a neutral prime, emphasizing their appearance and sexual attraction or preferring the attractive but incompetent targets more because they were instrumental for their sex goal.

Single-category Implicit Association Test. As in the former studies, a D -score was calculated and analyzed in a 2 (condition: control *versus* sex prime) \times 2 (gender: male *versus* female) \times 2 (order: human/female association first *versus* animal/female association first) between-participants ANOVA. Apart from a condition main effect [$F(1, 70) = 16.57; p < .001, \eta_p^2 = 0.19$] that showed that the female targets were dehumanized more in the sex prime compared with the control condition, the expected condition \times gender interaction emerged [$F(1, 70) = 21.83; p < .001, \eta_p^2 = 0.24$; see Figure 4]. As expected, male participants associated the female targets more with human words in the control ($M = 0.63, SD = 0.47$) compared with the sex prime condition [$M = -0.38, SD = 0.64, F(1, 70) = 39.28; p < .001, \eta_p^2 = 0.36$], whereas no differences occurred for female participants as a function of the sex prime ($F < 1; M = 0.10, SD = 0.44$ and $M = 0.17, SD = 0.45$ for the control and sex prime condition, respectively).

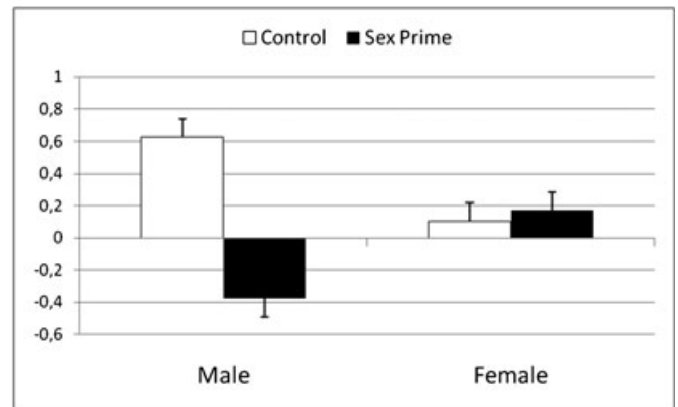


Figure 4. Mean SC-IAT D -scores for female targets as a function of sex prime condition and participants' gender (Study 3)

Discussion

Taken together, results confirm our hypothesis that activating a sex goal makes male but not female participants sexually objectify female targets attending more to their appearances and sex appeal and preferring them for their physical attractiveness. The same prime also increased man's tendency to dehumanize female targets, suggesting that sexual attraction triggers both objectifying and dehumanizing perceptions of women in men. These findings add to the results of the previous studies showing that good-looking female targets do not need to be presented in a sexually objectified fashion *per se* to be dehumanized by men. Instead, an active sex goal in men is a sufficient condition to both objectify and dehumanize good-looking female targets.

The results depicted in Figure 3 may suggest that men in the sex prime condition are actually equally willing to work with any female candidate. It is, however, important to note that participants had concurrent sex and performance goals active. Indeed, Gruenfeld et al. (2008) argue that giving instructions to do an online mathematical task activates a performance goal. Following this reasoning, the competent but less attractive female candidate remains instrumental to fulfill the performance goal regardless of whether the sex goal is activated or not.

As expected, women with an active sex goal did neither objectify nor dehumanize the female targets they were presented with. Given that all female participants were heterosexual, this result is not really surprising. The more interesting question for future research would be to confront female participants with good-looking male targets testing whether a sex prime would elicit both objectifying and dehumanizing perceptions of male targets in women. It is hard to make definite claims on what

Table 2. Mean judgments and standard deviations (between parentheses) of the female target pictures as a function of condition and participants' gender (Study 3)

			Sexy	Arousing	Beautiful	Vulgar	Superficial
Male	Control	$M (SD)$	3.04 (1.12) ^a	3.09 (.89) ^a	3.58 (.56) ^a	3.17 (.42) ^a	3.46 (.42) ^a
	Sex prime	$M (SD)$	4.73 (.76) ^b	4.91 (.79) ^b	4.96 (.73) ^b	4.34 (.85) ^b	4.87 (.87) ^b
Female	Control	$M (SD)$	3.86 (.92) ^a	3.00 (1.24) ^a	3.98 (.80) ^a	3.00 (1.14) ^a	3.27 (1.23) ^a
	Sex prime	$M (SD)$	4.16 (.99) ^a	3.23 (1.27) ^a	4.14 (1.07) ^a	3.20 (.80) ^a	3.51 (1.00) ^a

Note: Means with a different superscript express significant differences ($p < .05$) between conditions within each gender category.

would happen in this situation, but given that previous research has suggested that women implicitly associate sex with submissiveness and makes them adopt more submissive sexual roles (Sanchez et al., 2006), it could be hypothesized that the link between sexual attraction and processes of objectification and dehumanization would not generalize to female participants even when they are confronted with good-looking male targets.

GENERAL DISCUSSION

According to Fredrickson and Roberts (1997), sexual objectification implies both the instrumental use of another person as a product of consumption and the deprivation of his or her personality and full humanness. Seeing others as instrumental is not necessarily harmful (e.g., work relations) (Gruenfeld et al., 2008). Dehumanization is thus a key concept if we want to understand whether sexual objectification is denigrating. Therefore, for the first time the present research directly measured the dehumanizing quality of sexually objectified depictions of male and female targets. Results indicated that only sexually objectified women were dehumanized underlining the specific denigrating character of female sexual objectification. Importantly, both men and women engaged in this process but for very different reasons.

Specifically, results of Study 2 showed that when female targets are instrumentalized and depicted in a sexually objectified fashion, women show avoidance tendencies and dissociate from such representations judging them as vulgar and superficial. The more women hold such negative judgments, the more they tend to see their objectified counterparts as a subcategory they prefer to take distance from and the more they tend to dehumanize them. From this perspective, women dehumanizing sexually objectified female targets is a similar process as the dehumanization that is observed between an in-group and an out-group.

In the same study, results of male participants already suggested that men are especially driven by approach motivations when they dehumanize sexually objectified women. Importantly, these data also showed that this process of dehumanization is not necessarily limited to sexually objectified female targets. When they indicated to feel closer towards personalized female targets, they tended to dehumanize them as much as those that were objectified. This result suggests that it is not necessarily the type of female target but the relation a male perceives to have with a woman that determines whether dehumanization will occur. From the moment they feel sexually attracted and shift their focus from the personality to a woman's bodily features, good-looking female targets risk to lose part of their humanity. Therefore, in Study 3, female targets were presented who were not necessarily sexually objectified *per se* but could be seen as such when a sex goal was activated. Indeed, when sex was primed, male but not female participants saw these targets as sexually attractive and focused on appearance instead of competence in selecting a female candidate to collaborate on a mathematical test. Both results clearly show that a sex prime motivates men to make instrumental choices in line with their sexual needs. In

addition, the same sex prime made them dehumanize these female targets.

Looking at these separate analyses for both gender groups, one can conclude that even though men and women dehumanize sexually objectified targets to the same extent, their reaction is driven by very different processes. Once men feel sexually attracted towards a female, they activate an instrumental mindset that makes them emphasize a female's physical characteristics, potentially losing out on her personality and seeing her as a lesser human being. Men basically follow the process of female sexual objectification as it was described by Fredrickson and Roberts (1997), meaning that both instrumental and dehumanizing processes are implied. Women, instead, do not emphasize the instrumentality of a female target but rather have a dehumanizing reaction against a sexually objectified representation of women from which they prefer to distance themselves. For them, dehumanization is but a consequence of a confrontation with a sexually objectified depiction of a member of their gender group.

LIMITATIONS AND FUTURE RESEARCH

In Study 2, only those female participants who distanced themselves from sexually objectified women did not associate them with human attributes. Future research should focus on why this might happen. One possibility is that sexually objectified women constitute a threat for the female category at large. Following the dynamics of the black-sheep effect (Marques, Yzerbyt, & Leyens, 1988), such women are likely to be treated as bad apples, and dehumanizing them could protect the good image of the in-group. Another possibility is more related to the protection of the self. An abundant amount of research has shown the negative consequences of applying the beauty standard that is implicit in sexually objectified pictures to the self (e.g., Hawkins, Richards, Mac Granley, & Stein, 2004). Distancing from these pictures could then become a way to disengage from the beauty standard, maintaining one's body esteem and well-being.

In a similar vein, the reasons why men's sexual attraction towards women can have such detrimental consequences could be manifold and should be scrutinized in future research. One possibility could be found in the complex link between power, sex, and aggression (Bargh, Raymond, Prior, & Strack, 1995; Gruenfeld et al., 2008; Mussweiler & Förster, 2000) that makes men more prone to behave in a denigrating way towards presumed sexually available women. Another possibility was recently proposed by Landau et al. (2004), who state that sexually appealing women form a problem for men because they increase men's awareness of their corporeality and thus their mortality. Specifically, in one study, they showed that a mortality salience induction combined with a lust prime increased male participants' tolerance of aggression towards women in a case of domestic violence.

All in all, the present research has made an important step in understanding the dehumanization of sexually objectified targets. Sexually objectified women are the most likely targets, and both men and women dehumanize them but for different reasons. Whereas man's sexual motivation tends to

narrow their perception of women, focusing on their bodies and resulting in their dehumanization, women dehumanize sexualized depictions of women the more they dissociate themselves from these vulgar and superficial representations of their gender in-group. Taken together, these findings demonstrate that sexualized women are associated with denigrating perceptions, a result that should make us reflect on whether the massive presence of these images in our daily lives is still justifiable.

REFERENCES

- Archer, D., Iritani, B., Kimes, D. D., & Barrios, M. (1983). Face-ism: Five studies of sex difference in facial prominence. *Journal of Personality and Social Psychology*, *45*, 725–735.
- Bargh, J. A., Raymond, P., Prior, J. B., & Strack, F. (1995). Attractiveness of the underling: An automatic power → sex association and its consequences for sexual harassment and aggression. *Journal of Personality and Social Psychology*, *68*, 768–781.
- Bartky, S. (1990). *Femininity and domination: Studies in the phenomenology of oppression*. New York: Routledge Press.
- Buss, D. M. (1989). Sex differences in human mate preferences: Evolutionary hypotheses tested in 37 cultures. *The Behavioral and Brain Sciences*, *12*, 1–14.
- Calogero, R. M., Davis, W. N., & Thompson, J. K. (2005). The role of self-objectification in the experience of women with eating disorders. *Sex Roles*, *52*, 43–50.
- Cikara, M., Eberhardt, J. L., & Fiske, S. T. (2011). From agents to objects: Sexist attitudes and neural responses to sexualized targets. *Journal of Cognitive Neuroscience*, *3*, 540–551.
- Fredrickson, B. L., & Roberts, T. A. (1997). Objectification theory: Toward understanding women's lived experiences and mental health risks. *Psychology of Women Quarterly*, *21*, 173–206.
- Gray, H. M., Gray, K., & Wegener, D. M. (2007). Dimensions of mind perception. *Science*, *315*, 619.
- Greenwald, A. G., Nosek, B. A., & Banaji, M. R. (2003). Understanding and using the Implicit Association Test: I. An improved scoring algorithm. *Journal of Personality and Social Psychology*, *85*, 197–216.
- 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*, *95*, 111–127.
- Haslam, N. (2006). Dehumanization: An integrative review. *Personality and Social Psychology Review*, *10*, 252–264.
- Haslam, N., Loughnan, S., Kashima, Y., & Bain, P. (2008). Attributing and denying humanness to others. *European Review of Social Psychology*, *19*, 55–85.
- Hawkins, N., Richards, P. S., Mac Granley, H., & Stein, D. M. (2004). The impact of exposure to the thin-ideal media image on women. *Eating Disorders*, *12*, 35–50.
- Heflick, N. A., & Goldenberg, J. L. (2009). Objectifying Sarah Palin: Evidence that objectification causes women to be perceived as less competent and less fully human. *Journal of Experimental Social Psychology*, *45*, 598–601.
- Heflick, N. A., Goldenberg, J. L., Cooper, D. P., & Puvia, E. (2011). From women to objects: Appearance focus, target gender, and perceptions of warmth, morality and competence. *Journal of Experimental Social Psychology*, *47*(3), 572–581.
- Karpinski, A., & Steinman, R. B. (2006). The Single Category Implicit Association Test as a measure of implicit social cognition. *Journal of Personality and Social Psychology*, *91*, 16–32.
- Kermol, E., & Beltrame, M. (2001). I modelli sociali della pubblicità. In E. Kermol (Ed.), *Cinema Moda Pubblicità* (pp.103–147). Milano: FrancoAngeli.
- Koss, M. P., Gidycz, C. A., & Wisniewski, N. (1987). The scope of rape: Incidence and prevalence of sexual aggression and victimization in a national sample of higher education students. *Journal of Consulting and Clinical Psychology*, *55*, 162–170.
- Landau, M. J., Goldenberg, J. L., Greenberg, J., Omri, G., Solomon, S., Cox, C., et al. (2006). The siren's call: Terror management and the threat of men's sexual attraction to women. *Journal of Personality and Social Psychology*, *90*, 129–146.
- Leyens, J. Ph., Cortes, B., Demoulin, S., Dovidio, J., Fiske, S., Gaunt, R., et al. (2003). Emotional prejudice, essentialism, and nationalism: The 2002 Tajfel lecture. *European Journal of Social Psychology*, *33*, 703–717.
- Leyens, J. Ph., Demoulin, S., Vaes, J., Gaunt, R., & Paladino, M. P. (2007). Infra-humanization: The wall of group differences. *Social Issues and Policy Review*, *1*, 173–216.
- Leyens, J. Ph., Paladino, M. P., Rodriguez-Torres, R., Vaes, J., Demoulin, S., Rodriguez-Perez, A., et al. (2000). The emotional side of prejudice: The attribution of secondary emotions to ingroups and outgroups. *Personality and Social Psychology Review*, *4*, 186–197.
- Leyens, J. Ph., Rodriguez, A. P., Rodriguez, R. T., Gaunt, R., Paladino, M. P., Vaes, J., et al. (2001). Psychological essentialism and the differential attribution of uniquely human emotions to ingroups and outgroups. *European Journal of Social Psychology*, *31*, 395–411.
- 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.
- Marques, J. M., Yzerbyt, V., & Leyens, J. Ph. (1988). The “Black Sheep Effect”: Extremity of judgments towards ingroup members as a function of group identification. *European Journal of Social Psychology*, *18*, 1–16.
- Mussweiler, T., & Förster, J. (2000). The sex rightwards-arrow aggression link: A perception–behavior dissociation. *Journal of Personality and Social Psychology*, *79*, 507–520.
- Nussbaum, M. C. (1999). Sex and social justice. In M. C. Nussbaum (Ed.), *Objectification* (pp. 213–239). New York: Oxford University Press.
- Ortner, S. B. (1974). Is female to male as nature is to culture? In M. Z. Rosaldo, & L. Lamphere (Eds) *Woman, culture, and society*, (pp. 68–87). Stanford, CA: Stanford University Press.
- Paladino, M. P., Leyens, J. Ph., Rodriguez, R. T., Rodriguez, A. P., Gaunt, R., & Demoulin, S. (2002). Differential associations of uniquely and non-uniquely human emotions to the ingroup and the outgroups. *Group Processes and Intergroup Relations*, *5*, 105–117.
- Rudman, L. A., & Borgida, E. (1995). The afterglow of construct accessibility: The behavioral consequences of priming men to view women as sexual objects. *Journal of Experimental Social Psychology*, *31*, 493–517.
- Sanchez, D. T., Kiefer, A. K., & Ybarra, O. (2006). Sexual submissiveness in women: Costs for sexual autonomy and arousal. *Personality and Social Psychology Bulletin*, *32*, 512–524.
- Singh, D. (1993). Adaptive significance of female physical attractiveness: Role of waist-to-hip ratio. *Journal of Personality and Social Psychology*, *65*, 293–307.
- Strelan, P., & Hargreaves, D. (2005). Women who objectify other women: The vicious circle of objectification? *Sex Roles*, *52*, 707–712.
- Szymanski, D. M., & Henning, S. L. (2007). The role of self-objectification in women's depression: A test of objectification theory. *Sex Roles*, *56*, 45–53.