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Being a *Body*: Women's Appearance Related Self-Views and their Dehumanization of Sexually Objectified Female Targets

Elisa Puvia · Jeroen Vaes

Abstract When sexually objectified, women are reduced to their bodies or sexual body parts and become likely targets of dehumanization. Not only men, but also women engage in this process. In the present research, we tested the link between women's appearance related self-views and their tendency to dehumanize sexually objectified female targets. Specifically, we test two mediational models and predict that (1) women's motivation to look attractive to men and (2) their tendency to internalize the sociocultural beauty standards are linked with the dehumanization of sexually objectified female targets, and their level of self-objectification mediates both relations. To test these hypotheses, a sample of 55 heterosexual undergraduate female students from Northern Italy volunteered. Participants' motivation to look attractive to men, their level of internalization of the sociocultural beauty standards, and their tendency to self-objectify was measured. Results confirmed that only sexually objectified female targets were significantly dehumanized, while their non-objectified counterparts were not. Moreover, both participants' motivation to look attractive to men and their tendency to internalize the sociocultural beauty standards were positively linked with the dehumanization of sexually objectified female targets. As expected, these relations were mediated by participants' level of self-objectification. These results show that higher levels of self-objectification among those women who are motivated either to look attractive to men or to internalize the sociocultural beauty standards are linked with their tendency to dehumanize sexually objectified female targets.

Introduction

One of the most intriguing and complex phenomena involving human relationships, are women's relationships with other women (Loya et al. 2006). Complications that are observed within these relationships include beliefs and stereotypes about one's own gender group (Glick and Fiske 1996), outright hostility (Cowan et al. 1998; Loya et al. 2006) and even processes of dehumanization (Heflick and Goldenberg 2009; Vaes et al. 2011). Mostly these derogative reactions are not directed to women in general, but to a subgroup: Women depicted as sex objects (Sengupta, and Dahl 2008). Based on objectification theory (Fredrickson and Roberts 1997), a woman is depicted as a sex object if her body or sexual body parts are used to represent her and are separated out from the rest of her personality. Specifically, Sengupta and Dahl (2008) focused on women's negative reactions to the gratuitous (i.e., explicit and irrelevant) use of sexually objectified female pictures in Canadian advertising.

In addition, both Heflick and Goldenberg (2009) in the U.S. and Vaes and colleagues (2011) in Italy confirmed that women tend to dehumanize their objectified counterparts, attributing them less human nature (e.g., helpful, curious) or uniquely human related characteristics (e.g., culture, tradition), respectively. In the present research, we want to focus on women's appearance related self-views and their relation

E. Puvia (✉) · J. Vaes
Department of Developmental Psychology and Socialization (DPSS), University of Padova, Via Venezia 8, 35131 Padova, Italy
e-mail: elisa.puvia@unipd.it

with women's tendency to dehumanize these sexually objectified female targets among an Italian sample of female participants.

Self-objectification implies that women internalize an observer's perspective on their physical self, treating themselves as objects to be evaluated and appreciated by others (Fredrickson and Roberts 1997). Even though the detrimental physical (e.g., body image concerns, restrained eating) and cognitive (e.g., hindered performance in attentional and mathematical tasks) consequences of self-objectification for women are widely known (see Moradi and Huang 2008, for a review), such a self-view is still promoted in several ways. Women are often encouraged to internalize the sociocultural beauty standards through the many references to these standards in the Italian (Pacilli and Mucchi-Faina 2010) and in the U.S. media (Lavine et al. 1999). At the same time, the importance of women's relationship status is valued and the chance to obtain and maintain a romantic relationship is tied with their physical desirability to men. Indeed, Sanchez and Kwang (2007) found that U.S. heterosexual women's appearance concerns come in part from the desire to appeal to men in a romantic context. Encouraging women to look attractive to men has therefore clear effects on women's self-views and increases self-objectification as was shown in a recent study in the U.S. (Sanchez and Broccoli 2008).

The current research was conducted in Italy, a country that does not excel in gender equality. It appears 80th on a total of 135 countries in the latest gender gap report of the UN (Hausmann et al. 2012) and has a poor reputation when it comes to the way women are represented in the media. A recent study of an Italian research institute (i.e., Centro Studi Investimenti Sociali [CENSIS] 2006) on the representation of woman in almost 600 television shows on the seven main Italian TV channels showed that women are mostly portrayed as actresses (56.3 %), singers (25 %), and models (almost 20 %), typically lightly dressed, silent beauties serving as decoration. Representations of career women or women in politics were extremely rare (2 % and 4.8 %, respectively). This restricted representation of women has instigated some debate among Italians who denounce the current situation. A group of journalists, for example, have made a documentary about the objectification of the female body on the Italian TV, entitled Il Corpo delle Donne [Women's Bodies] (Zanardo et al. 2009). Recent research has confirmed that beliefs about women and views about female appearance within the Italian media are similar compared to other countries (e.g., U.S.) when it comes to self- (Dakanalis et al. 2012) and other-objectification (Vaes et al. 2011).

In line with the basic assumption of objectification theory (Fredrickson and Roberts 1997), Dakanalis and colleagues (2012), recently found that greater exposure to sexually objectifying Italian media (e.g., television and magazines) leads to enhanced worries about one's physical appearance and self-objectification among Italian women. On the other side, Vaes et al. (2011) demonstrated that Italian women dehumanized sexually objectified female targets as they appeared in the Italian female magazines. So, it seems that Italy fits the general profile of a country (much like the U.S., Australia, and Canada) that potentially objectifies the female body making it highly relevant to investigate how women perceive and react to sexually objectified portrayals of women as represented in the Italian visual media.

Specifically, the present work aims to investigate some of the interpersonal consequences of self-objectification. Indeed, researchers have suggested that Australian women who self-objectify tend to objectify other women more strongly (Strelan and Hargreaves 2005). Sengupta and Dahl (2008) have shown how a Canadian sample of undergraduate female students judged sex-based ads compared to nonsexual ads as more offensive and less likable, while undergraduate males showed the reverse pattern of results. While these reactions focus on women's approval or disapproval of sexualized female depictions, in the present research we want to relate women's tendency to self-objectify with their tendency to dehumanize sexually objectified representations of their gender group. Specifically, we propose two mediational models and predict that women's motivation to look attractive to men and/or their tendency to internalize the sociocultural beauty standards is linked with their tendency to dehumanize sexually objectified female targets and that both processes are mediated by participants' level of self-objectification.

Women Who Dehumanize Sexually Objectified Women

Fredrickson and Roberts (1997) emphasized two different aspects when they defined the concept of sexual objectification. According to them, women are objectified when they are treated as bodies (or body parts) that exist for the use or consumption of others, stripped of their individuality and personality. The first part of this definition emphasizes the fact that objectification implies a narrowed perception of the objectified in which a woman is reduced to her body as if it was capable to represent her. This narrowed focus is often the result of the fact that the objectified becomes instrumental or useful for the observer, for example, to fulfill one's sexual desires or to promote a product. The other aspect of this definition emphasizes the possibility that the objectified are stripped of their personality and individuality. In other words, the tendency to chronically and pervasively focus on one's physical appearance can translate in perceiving the objectified as not fully human.

The relation between objectification and dehumanization has recently been examined experimentally. Although

objectification theory (Fredrickson and Roberts 1997) posits that male heterosexuality lies at the basis of the sexual objectification of women, results have shown that not only men, but also women dehumanize their sexually objectified counterparts. Initial evidence stems from Heflick and Goldenberg (2009), who showed that U.S. participants of both genders who focused on the appearance rather than the personality of famous female targets (i.e., Sarah Palin or Angelina Jolie) reduced the extent to which these targets were attributed human nature traits. In a further series of studies, Heflick et al. (2011) extended these findings showing that only female, but not male targets were perceived as less competent, less warm and less moral when U.S. male as well as female participants were instructed to focus on and write about their appearance compared to their personality. Vaes and colleagues (2011) used a Single-Category Implicit Association Test (i.e., SC-IAT; Karpinski and Steinman 2006) to assess the extent to which sexually objectified women were associated with uniquely human (e.g., culture, foot) compared to animal related attributes (e.g., nature, paw). Results demonstrated that both Italian male and female participants associated sexually objectified female targets less with uniquely human attributes compared to equally attractive, non-objectified women whose bodies were less emphasized. This finding suggests that not only men but also women subtly dehumanize female targets when their sex appeal and bodily appearance are emphasized. In an attempt to obtain more information on why women showed these dehumanizing reactions, in a second study these authors investigated female participants' tendency to distinguish between objectified and non-objectified female depictions and the extent to which they identified with each type of picture. Results indicated that the more female participants reported to distance themselves from the category of sexually objectified women; the more they tended to dehumanize them. It remains unclear, however, why women might distance themselves from sexually objectified depictions of their gender category. In the present research, we argue that heightened levels of self-objectification and its antecedents (i.e., motivation to look attractive to men and internalization of the sociocultural beauty standards) might constitute such variables.

Motivation to Look Attractive to Men and Self-Objectification

As we noted above, physical attractiveness can be perceived as an important asset in obtaining and maintaining romantic relationships with the opposite sex among heterosexual women in the U.S. (Sanchez and Kwang 2007). The visual media often tie these two themes together to provide women with suggestions on how to draw men's attention through their appearance and maintain a romantic relationship. For example, Malkin et al. (1999) focused on the content

of the covers of popular U.S. women's magazines (e.g., *Cosmopolitan*, *Glamour*, *Vogue*) and found that they contained weight-related messages placed next to romantic relationship-related messages. "Stay skinny" was on the same cover as "What men want most". "Drop 8 Pounds this Month" was placed next to "25 Ways to make your marriage Hot Again". Although the magazines used in this study are produced in the U.S., they have international editions that reach many countries across the globe, including an Italian edition. Therefore, the implications of the exposure to these magazines take on global importance.

These messages signal that women who change their physical appearance will have more satisfying relationships. It comes as no surprise then that references to romantic relationships directly increase women's level of self-objectification. Evidence of this contention stems from Sanchez and Broccoli (2008) who primed U.S. female participants with words that deal with romantic relationships (e.g., partner, relationship, date). Results indicated that a relationship prime was sufficient to cause greater self-objectification among female participants. In a similar vein, Liss et al. (2011) have found that U.S. women who reported that they valued romantic relationships were more likely to invest in their appearance. These findings underline the importance of female participants' motivation to look attractive to men and their tendency to self-objectify.

Internalization of the Sociocultural Beauty Standards and Self-Objectification

Not all women are equally susceptible to the cultural pressures to conform to the ideal female body. A key variable is the extent to which one internalized the prevailing sociocultural beauty standards. In line with this idea, Tiggemann et al. (2005) have shown that the frequency of fashion magazine reading was positively associated with the internalization of the sociocultural beauty standards across similar samples of Australian and Italian women. More importantly, results indicated that internalization was linked with body concerns (i.e., self-objectification) in both countries. Tylka and Calogero (2011) argued that it is not the mere awareness of the existence of these standards that is harmful. Instead, it is their internalization that can prompt women to attempt to construct their bodies consistently in line with these standards and, in doing so, self-objectify.

The Present Study: Relating Self-Objectification and Its Antecedents with the Dehumanization of Sexually Objectified Women

Both the internalization of prevailing sociocultural beauty standards and the motivation to look attractive to men are linked with heightened tendencies to self-objectify among

women. Self-objectification is a reduced self-view in which the self is treated as an object to be looked at and evaluated (Fredrickson and Roberts 1997). Recently, Strelan and Hargreaves (2005) found that such a reduced self-view had clear implications for the way others (especially women) were perceived. In their study, using an Australian sample of female participants, results demonstrated that it was especially those women who self-objectify that also objectify other women. Self-objectifiers are more sensitive to their own appearance and generalize this reduced body focus to women at large.

Taken the previously discussed links between self-objectification and its antecedents together, we argue that especially those women who are motivated to look attractive to men and/or internalize the prevailing sociocultural beauty standards, more likely value their physical appearance (i.e., self-objectify) and are more prone to look at and evaluate other women on the same bodily dimension. The employment of such a narrowed body focus could shift the attention from these women's personalities and identities to their looks and physical appearance. In the eyes of the self-objectifiers, who these (sexualized) women are becomes less important. It is their looks that grab all the attention, literally making someone into something. As such, we hypothesize that women who self-objectify are prone to dehumanize sexually objectified female targets associating them with less human attributes.

To test this general idea, we analyzed two separate mediation models in which women's motivation to look attractive to men and their tendency to internalize the sociocultural beauty standards predicts the dehumanization of sexually objectified female targets, and their level of self-objectification mediates both relations. Moreover, this reaction should not be generalized to good-looking women who are not using their body to attract attention. Therefore, we compared female participants' reactions towards sexually objectified female targets with images of non-objectified women in which the face and not the body was emphasized.

Our specific hypotheses are as follow:

H1　Vaes and colleagues (2011) found that only non-objectified female targets were preferentially associated with human related words. Since we are testing a mediation model in which the dehumanization of sexually objectified female targets is expected to be the outcome, it is important to show in a first step that even in the current context only sexually objectified female targets will be less associated with human related words, indicating the occurrence of a subtle form of dehumanization. Therefore, replicating the results of Vaes et al. (2011), only non-sexually objectified female targets, are expected to be positively associated with human-related words.

H2　We predicted that women who are motivated to look attractive to men should be more inclined to dehumanize sexually objectified female targets. Thus, female participants' motivation to look attractive to men (i.e., predictor) should be negatively correlated with the humanity index of the sexually objectified female pictures (i.e., outcome).

H3　Much in the same way, we predicted that women who tend to internalize the sociocultural beauty standards would be especially motivated to dehumanize sexually objectified female targets. Therefore, female participants' tendency to internalize the sociocultural beauty standards (i.e., predictor) should be negatively correlated with the humanity index of the sexually objectified female pictures (i.e., outcome).

H4　Self-objectifiers are more sensitive to their own physical appearance and therefore become more likely judges of the appearance of other women especially when their physicality is made explicit (i.e., objectified). As a result, self-objectifiers more likely engage in the subtle dehumanization of sexually objectified women. Therefore, self-objectification (i.e., mediator) should negatively correlate with the humanity index of the sexually objectified female picture (i.e., outcome).

H5　In line with the mediation models described above, both the links described in H2 and H3 are expected to be mediated by female participants' level of self-objectification.

Method

Participants

Sixty-one Italian, female undergraduate students of the University of Padova, a large North Italian university were recruited. All volunteered to participate in this study. They did not receive credits or money for their participation. Only Italian native-speaking female participants who indicated to be heterosexual and who indicated that they were younger than 30 years old were retained. As a result, six participants were excluded from further analyses (three non-Italian native speakers, two participants who indicated to have a different sexual orientation than heterosexual, and one participant who was more than 30 years old). The final sample consisted of 55 female participants (90 % of the original sample). Participants' age ranged from 19 to 29 years old ($M=22.78$; $SD=2.27$). Thirty-six indicated not to be involved in a romantic relation, while the remaining 19 were. Participants' Body Mass Index (BMI) was calculated using the formula weight/height^2 (Kg/m^2). Participants' mean BMI was 21.11 ($SD=2.85$) ranging from 16 to 30.48.

Procedure and Measures

Participants were individually tested in the laboratory by a female experimenter. They were told that the study aimed to investigate self and other perception. In the first part of the study participants were presented with a package of questionnaires, assessing their level of self-objectification, their internalization of the sociocultural beauty standards, and the extent to which they value their physical appearance in order to look attractive to men. The items of all questionnaires used in the present research were translated into Italian by the first author and back translated by the second author before arriving at a final version that both authors agreed best captured the intended meaning (see Appendix). Subsequently, participants completed a computer task (i.e., Single Category—IAT) in which words and pictures had to be categorized. Both the sexually objectified and non-sexually objectified female pictures had to be categorized by each participant but in separate blocks together with the animal and human-related attributes. All the measures were presented in the following order.

Predictors

The Sociocultural Attitudes Towards Appearance Questionnaire (SATAQ)

This 14-items scale was designed by Heinberg et al. (1995) to measure women's awareness (e.g., *People think that the thinner you are, the better you look in clothes*) and internalization of the sociocultural standards of physical beauty (e.g., *I often read magazines like Cosmopolitan, Vogue, and Glamour and compare my appearance to the models*). Participants were provided with a 1 (*totally disagree*) to 5 (*totally agree*) Likert-type scale and they were asked to report the extent to which they agreed with each item referring to their personal experience. In the present study, the overall scale (Cronbach's $\alpha=.87$) as well as both subscales (Cronbach's $\alpha=.84$ and $\alpha=.81$ for the internalization and awareness subscales, respectively) showed a good internal consistency. Given that it was especially the internalization of the sociocultural beauty standards subscale we were interested in, as it represents the actual endorsement of the existing cultural prescriptions, we only considered this internalization subscale in the further analysis. Furthermore, despite good internal reliability, the awareness subscale did not correlate with any of the other variables of interest ($ps>.12$), confirming that it is the endorsement and not the mere knowledge of the sociocultural beauty standards that affect one's physical self-concept. Finally, the factorial structure of the internalization of the sociocultural beauty standards subscale, but not the awareness subscale, has shown to be cross-culturally

reliable (see Bagnara et al. 2004 for its use with an Italian sample).

An internalization of the sociocultural beauty standards index was obtained calculating participants' mean agreement with the content of each item. Higher numbers indicate a stronger internalization of the sociocultural beauty standards. This index ranged from 1 to 4.75 ($M=2.30$, $SD=.77$).

Motivation to Look Attractive to Men

This 3-item scale was created ad hoc for this study with the aim to assess female participants' motivation to take care of their physical aspect with the explicit motivation to look attractive to men. Participants were required to indicate the extent to which they agree with each of the following items using a 1 (*totally disagree*) to 5 (*totally agree*) Likert type scale. The items were: *I try to maintain myself in shape because boys like it*; *I take care of my physical appearance to facilitate my relationship with the opposite gender*; *To look pretty is important for me because it facilitates my relationship with the opposite gender* (see Appendix). From a principal component factorial analysis one factor was extracted explaining 82.43 % of the total variance. The scale also showed a high internal consistency (Cronbach's $\alpha=.89$). Participants' motivation to look attractive to men was calculated based on their mean level of agreement with each item. This index positively increased, the more participants indicated to value their physical appearance with the aim to draw male's attention. In our sample, this index ranged from 1 to 5 ($M=2.93$, $SD=.99$).

Mediator

The Self-Objectification Questionnaire

Participants' level of self-objectification was assessed using the Self-Objectification Questionnaire (SOQ; Fredrickson et al. 1998). This is a self-report measure according to which participants have to rank order a list of 10 attributes indicating how important each of these attributes is for their physical self-concept, using a ranking from 0 (*least impact*) to 9 (*greatest impact*). Half of these attributes refer to appearance attributes (e.g., *weight* [peso], *measure* [misure], *sex appeal* [apparire sexy/sex appeal], *physical attractiveness* [essere attraente fisicamente], *firm/sculpted muscles*, [tonicità muscolare]), while the other half deals with physical competences (e.g. *physical coordination* [coordinazione fisica], *health* [salute], *strength* [forza fisica], *energy level* [livello di energia], *physical fitness level* [condizione fisica]). Scores were calculated separately summing the ranks participants assigned to the appearance-based and competence-based attributes and then subtracting the competence-based score from the appearance-based score. Scores can range from

−25 to 25, with higher scores indicating a greater emphasis on appearance, interpreted as higher trait self-objectification. Participants are instructed to ignore the way in which they would describe themselves realistically but to consider the impact of each attribute for their physical self-concept. As a result, this scale assesses participants' concern with appearance independently from their satisfaction with their bodies. Indeed, objectification theory states that women experience the negative consequences of self-objectification primarily as a result of being concerned with physical appearance regardless of whether they feel satisfied with their bodies or not.

In the present research, the self-objectification index ranged from −25 to 23 ($M=−4.18$, $SD=11.66$). Because the attributes in this scale need to be ranked according to importance, reliability is determined by correlating the sum of the appearance ranks and the sum of the competence ranks (Hill and Fischer 2008). In the present study, a strong negative correlation was found between appearance and competence rankings, indicating good reliability, $r(55)=−.998$, $p<.001$. In addition, consistent with objectification theory, trait self-objectification scores were not correlated with BMI, $r(55)=.07$, $p=.62$, confirming that women can be worried about their physical appearance regardless of their effective body size.

Outcome

Humanity Index

Participants were presented with a double Single Category-Implicit Association Test (SC-IAT, Karpinski and Steinman 2006) in which objectified and non-objectified female pictures had to be categorized together with human and animal attributes. The SC-IAT represents a modification of the Implicit Association Test (IAT) procedure but unlike the standard IAT paradigm the SC-IAT assesses the strength of evaluative associations with a single attitude object without a complementary category.

The 10 female pictures used in the task were taken from Vaes et al. (2011). These pictures came from advertisements that appeared in the international edition of the main Italian female magazines (e.g., *Marie Claire*, *Vanity Fair*) and were selected on the basis of a pretest in which both Italian male and female participants judged the extent to which the depicted female targets were objectified and their level of attractiveness. On the basis of these judgments, five pictures showed a sexually objectified female target and the five female targets in the remaining pictures were seen as not objectified. Importantly, these pictures were seen as equally attractive (see Vaes et al. 2011, for further details).

Also, the 10 attribute words were taken from Vaes et al. (2011). Five words were human-related (culture, [*cultura*], foot, [*piede*], nose, [*naso*], values, [*valori*] and tradition,

[*tradizione*]) and five referred to the animal rein (nature, [*natura*], paw, [*zampa*], snout, [*muso*], instinct, [*istinto*] and hibernation [*letargo*]). Using both Italian male and female participants, these attributes were selected on the basis of two independent pretests asserting that they highly differed on the human dimension, but had equal valence (see Vaes et al. 2011, for details).

The two SC-IAT's, one staging sexually objectified and one showing non-sexually objectified pictures, had the typical structure that is suggested by Karpinski and Steinman (2006). Participants were required to categorize a set of stimuli as quickly and accurately as possible by pressing two different keys on the computer keyboard. Each of the two SC-IAT's was divided into five blocks: Following a training block of 20 trials in which participants only categorized the animal and human related words using a left and a right hand key on a computer keyboard, two critical SC-IAT's of 60 trials were created one that looked at the human and animal associations with objectified pictures (i.e. 2nd and 3rd block) and one that looked at the same associations with the non-objectified targets (i.e. 4th and 5th block). Within each critical block, each word and each picture was presented three times in a random order. Each critical block was preceded by a set of instructions explaining the specific categorization task and the appropriate response keys. Category reminder labels were appropriately positioned on top of the computer screen. The stimuli remained on the screen until participants responded. Following incorrect responses, participants were given an error message in the shape of a black cross that appeared at the bottom of the screen. The order in which the four blocks appeared was controlled counterbalancing the compatible (animal-objectified picture/human-non objectified pictures) and incompatible blocks (human-objectified picture/animal-non objectified picture) between participants. Also the order of the two SC-IATs was counterbalanced between participants: half of them had to categorize the sexually objectified targets together with the animal and human related traits first, followed by the non-objectified targets, while for the other half of the participants the two SC-IAT's were presented in the reverse order. Both order variables were manipulated between subjects but did not influence our results in any way. Therefore, they will not be discussed any further. Data were treated using a D-score algorithm for IAT data proposed by Greenwald et al. (2003).

As a result, two SC-IAT D-scores were calculated: one for the objectified female pictures and one for the non-objectified female pictures. The former score was obtained by subtracting participants' reaction times to categorize objectified pictures and human related words with the same response key from the reaction times to associate the same target with animal related words controlling for the pooled variance of the reaction times in both blocks. The other D-score was obtained similarly but took the categorization of

non-objectified female stimuli into account. As a result, in both cases higher numbers indicated an increased preference to implicitly associate human concepts with the female target at hand.

Demographics

Finally, participants had to indicate their age, sexual orientation, mother tongue, their weight and height. They were also asked to report whether they were currently involved in a romantic relationship or not. They were fully debriefed and thanked for their participation.

Results

Means, standard deviations, scale range, and zero-order correlations among the observed variables are presented in Table 1.

Outcome

Humanity Index

We considered participants preference to associate human vs. animal concepts with the objectified and non-objectified female targets in the SC-IAT's. As a first step we performed a single sample t-test on the two SC-IAT indices separately. In support of our first hypothesis (H1), the analysis revealed that female participants showed a significant preference to associate the pictures of the non-objectified female targets with human related words ($M=.11$, $SD=.33$), $t(54)=2.36$, $p=.02$, while the same was not true for sexually objectified female targets ($M=.00$, $SD=.31$), $t(54)=.02$, $p=.99$.

In order to verify whether the dehumanization of sexually objectified women was mainly due to a lack of human associations or the activation of animal connotations, we analyzed participants' untransformed reaction times using

a 2 (Target: objectified vs. non-objectified) X 2 (Word: Human vs. animal) within participants ANOVA. A significant Target X Word interaction emerged, $F(1, 54)=11.76$, $p=.001$, $\eta_p^2=.18$. This interaction indicated that participants showed both a tendency to associate animal words more easily with objectified targets ($M=676.53$, $SD=113.92$) compared to non-objectified targets, $M=694.36$, $SD=128.12$, $F(1, 54)=3.88$, $p=.05$, $\eta_p^2=.07$, and associated human words and non-objectified targets with greater ease ($M=664.29$, $SD=102.11$) compared to the objectified targets, $M=696.07$, $SD=126.31$, $F(1, 54)=7.28$, $p=.01$, $\eta_p^2=.12$.

Correlations Between Predictors, Mediator and Outcome

Looking at the correlations shown in Table 1, as expected (H2, H3, and H4) female participants' motivation to look attractive to men, their tendency to internalize the sociocultural beauty standards and their tendency to self-objectify were all negatively correlated with the humanity index of the objectified female pictures, $r(55)=-.33$, $p=.01$; $r(55)=-.32$, $p=.01$; and $r(55)=-.38$, $p=.004$, respectively suggesting that those participants who were especially motivated to look attractive to men, those who internalized the sociocultural beauty standards, and those who self-objectified, dehumanized the sexually objectified female targets to a greater extent.

Importantly, these three variables were also moderately related with one another. Those participants who internalized the sociocultural beauty standards promoted by the media attributed greater importance to their physical appearance, self-objectification $r(55)=.32$, $p=.02$ and reported a stronger motivation to look attractive to men, $r(55)=.49$, $p<.001$. Finally, self-objectification and participants' motivation to look attractive to men were correlated with one another, $r(55)=.48$, $p<.001$. As expected, both the motivation to look attractive to men to obtain and maintain a romantic relationship through physical appearance and the

Table 1 Intercorrelations and descriptive statistics for the variables of interest

	1	2	3	4	5	6	7	M (SD)	Scale range
1. Humanity index for objectified female targets	-							.001 (.31)	−2–2
2. Humanity index for non-objectified female targets	−.05	-						.11 (.33)	−2–2
3. Motivation to look attractive to men	−.33*	.03	-					2.93 (.99)	1–5
4. Self-objectification	−.38**	−.10	.48**	-				−4.18 (11.7)	0–9
5. Internalization index	−.32*	.16	.49**	.32*	-			2.30 (.77)	1–5
6. Relationship status	.19	−.17	−.15	−.25	−.03	-		.35 (.48)	0–1
7. BMI	−.06	−.12	−.01	.07	.28*	.37**	-	21.11 (2.85)	18.50–24.99

N=55. *p<.05 **p<.01

Higher scores reflect higher levels of the variable assessed

internalization of the sociocultural beauty standards are linked with women's tendency to self-objectify.

It is important to note that a similar pattern of results failed to emerge significantly for the non-objectified female targets. As shown in Table 1, neither participants' motivation to look attractive to men nor their level of self-objectification were linked with participants' human associations with the non-objectified targets ($ps>.45$). Also, the fact whether participants were currently engaged in a romantic relationship or not, was unrelated with any of the main variables (see Table 1).

Mediation Analyses

As hypothesized, we found that those participants who were especially motivated to look attractive to men, more likely dehumanized objectified female targets. We also found that high self-objectifiers did the same. To examine whether those participants who are motivated to look attractive to men pay more attention to their physical appearance and dehumanize sexually objectified female targets as a result, a mediation model was tested. Specifically, we hypothesized that self-objectification should mediate the relationship between participants' motivation to look attractive to men and the dehumanization of sexually objectified female targets. Following the procedure for testing mediation proposed by Baron and Kenny (1986), three separate regression equations were estimated. In the first equation, participants' motivation to look attractive to men was a significant predictor of the hypothesized mediator, self-objectification, $b=5.69$, $SE=1.42$, $p<.001$. In the second regression, the motivation to look attractive to men was a significant predictor of the dehumanization of sexually objectified women, $b=−.11$, $SE=.041$, $p=.01$. Finally, as shown in Fig. 1, when the self-objectification index was included in the regression model, the effect of participants' motivation to look attractive to men on their level of dehumanization disappeared, $b=−.062$, $SE=.045$, $p=.18$, while the effect of self-objectification remained marginally significant, $b=−.008$, $SE=.004$, $p=.06$. Following the protocols of Preacher and Hayes (2004) we used a bias-corrected and accelerated bootstrapping for indirect effects which revealed a significant

indirect effect, as indicated by a 95 % confidence interval that did not include 0, based on 1,000 bootstrap samples (−.106; −.016). This analysis indicates that self-objectification mediated the relationship between female participants' motivation to look attractive to men and their tendency to dehumanize sexually objectified female targets.

As expected, it was also found that those participants who were prone to internalize the sociocultural beauty standards, more likely dehumanized objectified female targets. To examine whether especially those participants who are likely to internalize the sociocultural beauty standards are more inclined to pay attention to their physical appearance and dehumanize sexually objectified female targets as a result, a second mediation model was tested. Specifically, we hypothesized that self-objectification should mediate the relationship between participants' tendency to internalize the sociocultural standards regarding beauty and the dehumanization of sexually objectified female targets. We followed the same procedure mentioned above. In the first equation, participants' tendency to internalize sociocultural beauty standards was a significant predictor of the hypothesized mediator, self-objectification, $b=4.79$, $SE=1.97$, $p=.02$. In the second regression, participants' tendency to internalize the beauty standards was a significant predictor of the dehumanization of sexually objectified women, $b=−.13$, $SE=.052$, $p=.02$. Finally, as shown in Fig. 2, when self-objectification was included in the regression model, the effect of participants' tendency to internalize the sociocultural beauty standards on their level of dehumanization becomes only marginally significant, $b=−.091$, $SE=.053$, $p=.09$, while the effect of self-objectification remained, $b=−.008$, $SE=.004$, $p=.02$. Following the same protocols as before adopted from Preacher and Hayes (2004), the 95 % confidence interval did not include 0, based on 1,000 bootstrap samples (−.108; −.001). This analysis indicates that self-objectification mediated the relationship between female participants' tendency to internalize the sociocultural beauty standards and their tendency to dehumanize sexually objectified female targets.

In addition, some alternative mediation models were tested. Both alternative models verified whether the relation between self-objectification and the dehuman-

Fig. 1 Mediation model testing the mediation role of self-objectification in the relation between female participants' motivation to look attractive to men and the dehumanization of sexually objectified female targets
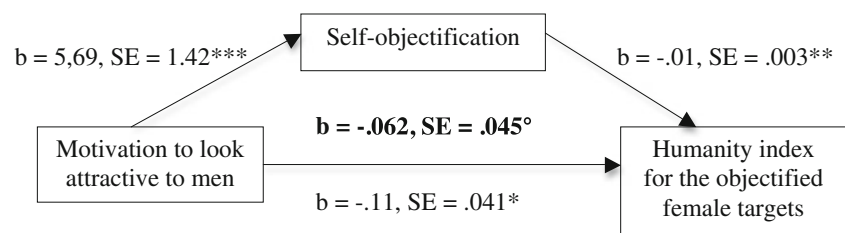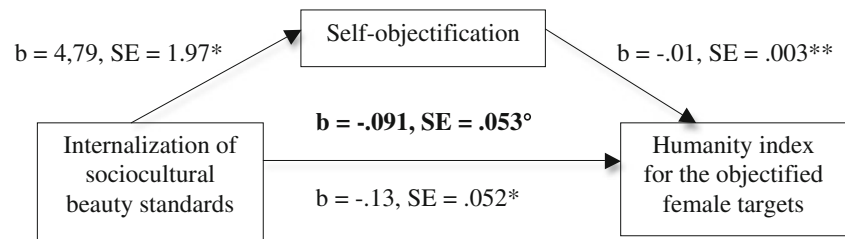
Fig. 2 Mediation model testing whether self-objectification mediates the relation between internalization of sociocultural beauty standards and the dehumanization of sexually objectified female targets

ization of sexually objectified women was mediated by participants' appearance related self-views (i.e., internalization of sociocultural beauty standards, motivation to look attractive to men). No mediation effects were found. Specifically, motivation to look attractive to men neither increased participants' tendency to dehumanize sexually objectified female targets when controlling for self-objectification (p=.18), nor eliminated the effect of self-objectification on the main outcome. In the case of internalization of the sociocultural beauty standards the indirect effect on the outcome resulted to be significant, as indicated by a 95 % confidence interval that did not include 0, based on 1,000 bootstrap samples (−.005; −.000). Still, results showed that participants who internalized the sociocultural beauty standards did not significantly increase (p=.09) their tendency to dehumanize sexually objectified female targets when controlling for their level of self-objectification. Therefore, in both cases the alternative models did not show a clear mediation pattern. This finding corroborates the validity of our hypothesis that women's motivation to look attractive to men and/or their tendency to internalize the sociocultural beauty standards is linked with their tendency to dehumanize sexually objectified female targets and that both processes are mediated by participants' level of self-objectification.

Discussion

The present study was designed to investigate women's perception of other women; in particular their perception of sexy women depicted in an objectified way. Indeed, the way these specific targets are perceived is problematic as it involves dehumanization (Heflick and Goldenberg 2009; Vaes et al. 2011). Also, despite the fact that the most popular representation of woman in the Italian visual media is one of a sex object, little research has investigated how Italian women in general perceive and react to such models. Comparing the pattern of participants' implicit associations of human versus animal related words with objectified and non-objectified female targets, female participants showed a significant preference to exclusively associate the pictures of non-objectified female targets with human related words. In line with our hypothesis and previous research (see Vaes et al. 2011), this effect indicates that female participants did not significantly humanize sexually objectified women.

More importantly, the present research aimed to get a better understanding of why women might engage in this process of dehumanization. Results confirmed as expected that a higher degree of self-objectification is linked with a lesser attribution of humanity to sexually objectified female targets. We hypothesized that heterosexual women who are motivated to look attractive to men are subjected to experience increased concern about their physical appearance (i.e., higher self-objectification) in their effort to resemble ideals of beauty embodied by sexually objectified targets and dehumanize them for this reason. Much in the same way, we predicted that women who tend to internalize the sociocultural beauty standards would behave similarly. Women who are highly motivated to look attractive to men and/or internalize the prevailing sociocultural beauty standards, more likely value their physical appearance and compare and evaluate other physically attractive women on this same dimension (see also Strelan and Hargreaves 2005). Such a body focus, risks stripping these female target from their personality and individuality reducing them to mere objects to be looked at and evaluated resulting in subtle processes of dehumanization. The present findings confirmed that both participants' motivation to look attractive to men and their tendency to internalize the sociocultural beauty standards were positively linked to the dehumanization of sexually objectified female targets and in line with the above explanation, these relations were mediated by participants' level of self-objectification. The more participants were motivated to look attractive to men and/or internalized the prevailing sociocultural beauty standards, the more they reported to self-objectify.

Self-objectification also increased participants' tendency to dehumanize sexually objectified female targets and

eliminated the effects of the former variables on the main dependent variable. The lack of any of these relations toward non-objectified female targets, suggests that the dehumanization of women toward other women is directed not at their gender group in general but toward a specific subgroup; sexy women depicted in an objectified manner. Indeed, these results show that it is not the physical attractiveness of other female targets per se, but their sexy, body focus that is a necessary variable to obtain the above described processes and their related dehumanizing perceptions among women.

Interestingly, the effects described above were obtained regardless of whether participants reported that they were involved in a romantic relationship. This result suggests that merely having a partner does not buffer the sociocultural pressure that women might feel to meet appearance ideals in maintaining their relationship status.

Limits and Future Research

One of the important limitations of the present research is the cross-sectional nature of the data. Even though the reported alternative mediation models excluded some alternative explanations, no causal relations can be drawn between the measured variables. Future research should directly manipulate some of the appearance related variables that were measured in this study to verify whether these variables are necessary in causing the dehumanization of sexually objectified targets.

The present study showed that the more female participants emphasize the importance of their physical appeal, the more they dehumanized sexually objectified female targets. Throughout the article we defended the idea that this link was due to the fact that heightened self-objectification results in a narrowed perception of the other perceiving not only the self, but also others as objects dehumanizing them to a greater extent. Still, also other processes could lie at the basis of this phenomenon. One possibility is represented by feelings of competition. Both women, who internalize the sociocultural beauty standards and those who are motivated to look attractive to men, highly value their physical appearance and could therefore consider sexually objectified women as competitors. Competition among women often plays in the context of physical attractiveness (Cashdan 1998) and previous researchers (Cowan et al. 1998; Loya et al. 2006) have linked such instances of female competition with the expression of hostile attitudes towards other women. Based on these findings, it is possible to hypothesize that the dehumanization of sexually objectified women is driven by such feelings of competition.

Another possibility is that comparison processes lie at the basis of the dehumanization process. Comparison processes occur when a person is confronted with another on a domain that is highly relevant to the self (Smith 2000). Our results seem to suggest that only those women who retain physical appearance as an important standard dehumanize sexually objectified female targets. Hence, it becomes likely that especially those women who compare their looks with these sexy, attractive targets, increase their tendency to dehumanize them as an implication of an upward self-evaluative comparison. From this perspective, women's devaluing reactions toward sexually objectified targets could be a way to deal with the negative feelings that such upward comparison processes elicit. The process of dehumanization then becomes a strategy of fighting, discounting or devaluing the physical appeal of good-looking, sexually objectified women.

More research is needed to identify the specific process that underlies the link between women's appearance related self-perceptions and the dehumanizing reactions toward sexualized female bodies that are reported in the current study. Besides promoting future research the present findings are important, in that, they shed light on the possible motivations that lead women to dehumanize their objectified counterparts. Moreover, they give more insight in the feminine models that our society proposes and the way women perceive and react towards them.

Appendix

Items comprising the Italian version of the motivation to look attractive to men scale.

1. Cerco di restare in forma perché ai ragazzi piace.
2. Curo il mio aspetto per facilitare i rapporti con l'altro sesso.
3. Il mio aspetto fisico è importante per me, perché facilita i rapporti con l'altro sesso.

English translation of the motivation to look attractive to men scale.

1. I try to maintain myself in shape because boys like it.
2. I take care of my physical appearance to facilitate my relationship with the other gender.
3. To look pretty is important for me because it facilitates my relationship with the other gender.

Items comprising the Italian version of the Internalization subscale of the Sociocultural Attitudes Toward Appearance Questionnaire (SATAQ).

1. Le donne presenti negli show televisivi e nei film rappresentano il tipo di aspetto fisico al quale aspiro.

2. Credo che i vestiti stiano meglio quando indossati da modelle magre.

3. I video musicali che mostrano ragazze magre mi fanno desiderare di essere magra.

4. Non desidero assomigliare alle modelle presenti nelle riviste.*

5. Tendo a confrontare il mio corpo con quello delle donne presenti nelle riviste e in televisione.

6. Nella nostra società, le persone grasse non sono considerate poco attraenti.*

7. Le immagini di modelle mi fanno desiderare di essere magra.

8. Nella nostra cultura, essere attraenti è veramente importante se si vuol fare carriera.

9. Oggigiorno, è importante che le persone lavorino molto sul proprio aspetto fisico se vogliono avere successo.

10. La maggior parte delle persone non crede che quanto più sei magra, tanto migliore sia il tuo aspetto fisico.*

11. Le persone ritengono che quanto più sei magra, meglio indossi i vestiti.

12. Nella società di oggi, non è importante essere sempre attraente. *

13. Vorrei avere l'aspetto di una modella.

14. Spesso leggo riviste come *Cosmopolitan*, *Vogue*, *Glamour* e confronto il mio aspetto fisico con quello delle modelle.

Awareness Scale: Items 6, 8, 9, 10, 11, 12; Internalization Scale: Items 1–5, 7, 13, 14.

*Reversed scored item

English version of the Sociocultural Attitudes Toward Appearance Questionnaire (SATAQ)

1. Women who appear in TV shows and movies project the type of appearance that I see as my goal.

2. I believe that clothes look better on thin models.

3. Music videos that show thin women make me wish that I were thin.

4. I do not wish to look like the models in the magazines.*

5. I tend to compare my body to people in magazines and on TV.

6. In our society, fat people are not regarded as unattractive.*

7. Photographs of thin women make me wish that I were thin.

8. Attractiveness is very important if you want to get ahead in our culture.

9. It's important for people to work hard on their figures/physiques if they want to succeed in today's culture.

10. Most people do not believe that the thinner you are, the better you look.*

11. People think that the thinner you are, the better you look in clothes.

12. In today's society, it's not important to always look attractive.*

13. I wish I looked like a swimsuit model.

14. I often read magazines like *Cosmopolitan*, *Vogue*, and *Glamour* and compare my appearance to the models.

Awareness Scale: Items 6, 8, 9, 10, 11, 12; Internalization Scale: Items 1–5, 7, 13, 14.

* Reverse scored item.

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