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**A FEMININE LOOK AT FEMALE OBJECTIFICATION:
MAKEUP AND SELF-OBJECTIFICATION, SEXY WOMEN AND
THEIR DEHUMANIZATION**

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Table of contents	
ENGLISH SUMMARY	6
ITALIAN SUMMARY	8
CHAPTER 1: Objectification Theory: nature, causes and consequences	11
1.1 The body as an object: A theoretical overview on sexual female objectification	12
1.2 The two sides of objectification: Self and Others	13
<i>1.2.1 Objectifying the Self: visual media and cultural pressure on female body and mind</i>	13
<i>1.2.2 Objectifying others: Dehumanization of sexually objectified female targets</i>	18
1.3 Overview of the present research	23
CHAPTER 2: Makeup usage as a self-objectifying practice and its' consequences on woman's cognitive performance	29
2.1 Cosmetic use and impression formation	33
2.2 Makeup, competence and cognitive performance	36
2.3 Makeup use and woman's self-perception	38
2.4 Study 1: <i>Role-play study</i>	39
2.4.1 Method	41
2.4.2 Procedure and measures	41
2.4.3 Results	44
2.4.4 Discussion	48
2.5 Study 2: <i>Artistic impression and personal preferences study</i>	50
2.5.1 Method	51
2.5.2 Procedure and measures	52
2.5.3 Results	55
2.5.4 Discussion	60
2.6 General discussion Study 1 & Study 2	61

2.6.1 Limits and future researches	64
CHAPTER 3: Moderators of the de-humanization of sexually objectified female targets	65
3.1 Women objectify and de-humanize other women	65
3.2. Study 3: <i>Promoters versus Victims of objectification: When women dehumanize sexually objectified females</i>	67
3.2.1 Method	69
3.2.2 Procedure and measures	70
3.2.3 Results	72
3.2.4 Discussion	74
3.3 Study 4: <i>The competition is feminine</i>	75
3.3.1 Method	78
3.3.2 Procedure and measures	79
3.3.3 Results	83
3.3.4 Discussion	88
3.4 General discussion Study 3 & Study 4	90
3.4.1 Limits and future researches	91
GENERAL CONCLUSIONS	97
<i>The meaning of sexual female objectification</i>	97
<i>The twisted appeal of sexual female objectification</i>	99
<i>Objects in need of transformation</i>	100
REFERENCES	105

ENGLISH SUMMARY

The present work aimed to get a better understanding of sexual female objectification (Bartky, 1990; Frederickson & Roberts, 1997). When objectified, a woman is put on a par with her body or body parts resulting in a loss of her personality and individuality.

We have examined both the cognitive consequence of the objectification of the self on woman's self-perception and the possible motivations that lead women to consider sexually objectified female targets as not fully human beings.

Chapter 2 tested the hypotheses that applying makeup could be a self-objectifying practice that in turn could have a negative impact on woman's self-perceived competence. In two studies we have shown that changing one's facial features through the use of makeup is linked with a woman's tendency to self-objectify, increasing worries about her physical (facial) appearance. In addition, we hypothesized that makeup use could have a negative impact on woman's self-perception according to the normative context in which it is used. In line with this hypothesis, only when women's competence is expected to be evaluated the intention to wear makeup lead female participants to perceive themselves as less competent. Study 2 replicated the link between makeup use and self-objectification broadening our knowledge about the process of self-objectification itself. Indeed, the results of these studies show that a person's face instead of his or her body can function as a possible source of self-objectification, and more specifically the use of makeup is a potential self-objectifying practice.

In Chapter 3 we examined the possible motivations that could lead women to dehumanize their sexually objectified counterparts. Both target and perceivers' characteristics were manipulated to get a better understanding on these motivations. In Study 3, we showed that

manipulating the social meaning of the target of sexual female objectification that is priming the idea of a woman as a promoter versus a victim of an objectifying culture changed the way female participants perceived them in human terms. Only in the former condition female participants attributed less humanness to sexually objectified targets.

Finally, focusing on perceivers' personality characteristics, Study 4 showed that women when confronted with sexually objectified depictions of their gender category tend to distance themselves from these representations because they perceive these sexy women as potential competitors in their strive to attract the attention of the other sex.

ITALIAN SUMMARY

Il presente lavoro di ricerca è volto ad indagare il fenomeno dell'oggettivazione sessuale femminile (Bartky, 1990; Frederickson & Roberts, 1997). Quando oggettivata, una donna è ridotta al proprio corpo o alle sue parti sessuali perdendo la propria individualità e personalità. Il processo di oggettivazione è stato indagato prendendo in considerazione sia le conseguenze cognitive che l'oggettivazione rivolta al sé o *auto-oggettivazione* può avere sulla percezione che una donna ha di sé, sia le possibili motivazioni che spingono le donne a considerare modelli di donna sessualmente oggettivati come non completamente esseri umani, o de-umanizzarli.

Nel Capitolo 2 abbiamo verificato se l'uso di makeup possa essere considerato una pratica auto-oggettivante che in quanto tale può avere un effetto negativo sulla competenza auto percepita di una donna. In una serie di due studi abbiamo mostrato come modificare le caratteristiche del proprio volto attraverso l'uso di makeup è associato ad una tendenza ad auto-oggettivarsi, aumentando le preoccupazioni espresse da partecipanti femminili per il proprio aspetto fisico, in particolare legato al proprio volto. Inoltre, abbiamo ipotizzato che l'effetto negativo derivante dall'uso di makeup possa dipendere dal contesto normativo in cui makeup viene utilizzato. In accordo con quest'ipotesi, è stato mostrato come solamente nel caso in cui partecipanti femminili erano poste in un contesto in cui la competenza veniva resa saliente l'intenzione di usare makeup portava queste stesse partecipanti a percepirsi come meno competenti. Nel loro insieme, questi studi ampliano la nostra conoscenza sul processo di auto-oggettivazione in quanto mostrano per la prima volta che anche il proprio volto oltre al corpo nel suo insieme può essere una fonte di auto-oggettivazione. A dispetto del suo largo uso, questi studi mostrano come l'uso di makeup sia un'abitudine potenzialmente auto-oggettivante.

Nel Capitolo 3 sono state indagate le possibili motivazioni che portano le donne a de-umanizzare modelli di donne sessualmente oggettivate. Abbiamo considerato le caratteristiche di chi subisce l'oggettivazione, ovvero della donna oggetto e di chi la pone in essere, ovvero le altre donne separatamente, ipotizzando che questi due aspetti siano importanti nel processo indagato. Nello Studio 3 abbiamo mostrato come cambiando il significato sociale associato ad un modello di oggettivazione sessuale femminile, evidenziando cioè il ruolo di potenziale promotrice oppure di vittima della donna di una cultura che oggettivizza i corpi femminili, cambi anche il modo in cui partecipanti femminili percepiscono questi modelli in termini umani. Solo nella condizione in cui veniva evidenziato il possibile ruolo di promotrici di una cultura che pone l'aspetto fisico come prioritario, le donne non attribuivano loro un grado di umanità diverso da quello attribuito ad un topic di controllo. Infine, nello Studio 4 il fenomeno di de-umanizzazione di modelli di donna oggetto da parte di altre donne, è stato indagato prendendo in considerazione le caratteristiche di personalità di partecipanti femminili considerate significative nel contesto dell'oggettivazione femminile. L'obiettivo era quello di comprendere quale tipologia di donna ha maggiori probabilità di reagire negativamente a questi modelli femminili. Questo studio ha mostrato come sono in particolare le donne motivate ad attrarre membri dell'altro sesso a prendere le distanze da modelli di donna sessualmente oggettivati poiché vedono in questi modelli delle potenziali rivali.

CHAPTER 1: Sexual Objectification: nature, causes and consequences

“ A person is sexually objectified when her sexual parts or sexual functions are separated out from the rest of her personality and reduced to the status of mere instruments or else regarded as if they were capable of representing her”. In this way Bartky (1990, p. 26) defined sexual female objectification. When sexually objectified a woman is put on a par with her body, a body to look at and evaluate by others. As objectification theory states this sexualization of the female body is primarily an act of men towards women. Even if consensual sexual relations or sexual desire involves a certain degree of sexual objectification, the identification of a person with her body and specifically with her sexual body parts or functions becomes problematic when it is compulsive, or habitually extended to every area of experience. Two aspects arise from this point of view: first, sexual objectification implies a focus on the body, second this focus can lead to perceptions of the objectified as a less than full human being. To continue using Bartky’s words: “sexual objectification leads to the identification of a woman with what is both human and not quite human-the body” (Bartky, 1990, p. 30).

In this chapter we will introduce the phenomenon of sexual objectification. We will start from Objectification Theory as formulated in 1997 by Barbara Frederickson and Tomi-Ann Roberts to arrive at some more recent developments. In this introduction, we will discuss two complementary aspects of sexual objectification: self- and other- objectification and their respective consequences.

1.1 The body as an object: A theoretical overview on sexual female objectification

Frederickson and Roberts (1997) proposed objectification theory as a theoretical framework for understanding how our Western sociocultural context and women's lived experiences within this cultural framework can be translated into physical and mental health risks for girls and women such as depression, eating disorders, and sexual dysfunctions. According to the theory, we live in a culture in which women's body are always potentially objectified. The most common and subtle way in which an objectified evaluation is enacted is through gaze or visual inspection of the body that can occur a) within interpersonal and social encounters often characterized in the form of non-reciprocated gaze and accompanied by sexually evaluative commentary; b) representations of women in visual media, music videos, advertisements, and TV shows. In a series of studies, Archer and colleagues (1983) have translated this tendency of representing women in visual media in a quantitative index, called "*face-ism index*" or "*relative facial prominence*" that is the ratio between the surfaces of face (from the top of the head to the lowest point of the chin) portrayed compared to the rest of the body (from the top of the head to the lowest visible part of the body). They found a gender bias according to which men are mainly represented with their heads and faces while women are represented through their bodies.

Together with the objectified gaze, socio-cultural prescriptions regarding beauty represent a primary source of objectification for women. Objectification theory posits that girls and women are socialized and encouraged to tie their worth to their physical beauty. The economic and societal achievements that attractive women obtained encourage them to live up to the beauty standards prescribed by their own culture. The most important and pervasive consequence is that women internalize an observer's perspective on the self, treating themselves as objects to be evaluated and appreciated by others or they *self-objectify*.

Self-objectification is manifested by persistent body surveillance, or a form of self-consciousness characterized by habitual monitoring of how the body looks.

Sexual objectification, then, can be an interpersonal as well as an intrapersonal phenomenon. As an interpersonal phenomenon, sexual objectification involves two persons: the one who objectifies (typically a man) and the one who is objectified (typically a woman). But the agent and the target can be the same person. In this last case, the objectification process involves one and the same person, an intrapersonal phenomenon that is called, self-objectification.

In the next two paragraphs we will consider these two perspectives of sexual female objectification separately. We will first deal with the objectification of the self and the role that socio-cultural prescriptions and visual media play in shaping this phenomenon and the possible consequences for women's physical and mental representations. Then, we will focus on the objectification of others and the possible dehumanization of sexually objectified female targets.

1.2 The two sides of objectification: Self and Others

1.2.1 Objectifying the Self: Visual media and cultural pressure on female body and mind

Objectification theory starts from the premise that the body is the most evident source of distinction between men and women. The role and significance of the body in shaping this difference is mostly discussed from a biological and evolutionary point of view. Alternatively, the theorists of objectification have privileged a sociocultural perspective: the body gets significance in a well-defined socio-cultural context through practices and prescriptions. These practices are more oppressive for women compared to men. According to the theory, Western societies always potentially objectify the female body. As we stated above, exposure to sexualized depictions of women in the media represent a sexually objectifying experience that in turn promotes self-objectification and body surveillance. In 2007, the American

Psychological Association (APA) published a report on the sexualization of girls through the media and other cultural sources. Sexualization was defined as the practice to consider a person only in terms of his or her sex appeal, implying that his or her sexuality overwhelms his or her personality when social judgments are made. The APA document has both considered how cultures contribute to the process of sexualization as well as its consequences for girls' mental and physical health. The research focused on the U.S. culture that is a white, middle to upper class, young to middle age, heterosexual sample and found that women and girls are more likely than men and boys to be sexually objectified in a variety of media including television, magazines, music videos, in advertisement and in several commercial products, such as dolls, clothing and cosmetics. This pervasive sexualization of the female body has a negative impact on women's well-being leading to a higher body dissatisfaction, body anxiety, eating disorders, low self-esteem and depression.

Recently, Swami et al. (2010) have conducted the first International Body Project (IBP-I), a cross-cultural survey that have examined differences in body weight ideals and body dissatisfaction. The project has involved 7, 434 individuals across 26 countries that represent 10 major regions (Southeast Asia, East Asia, South and West Asia, Oceania, Western Europe, Eastern Europe, Scandinavia, Africa, North America, and South America). Media exposure was operationalized asking to participants to rate their exposure to Western or U.S. media (e.g., television, movies, magazines, and music). In addition, participants outside the United States or Britain rated their exposure to local (national) media. As expected and in line with the APA document and the premise of objectification theory, the exposure to Western media was associated with a preference for a thinner figure, implying that a greater exposure to Western or US media who portray an idealized female beauty image is related to the desire of women all around the world to look thin. Similar results were found in relation to women's body dissatisfaction: the more female participants reported to spend their time viewing Western media, the more they reported to be dissatisfied with their bodies. This last result confirms

that the exposure to portrayals of idealized female bodies promoted by Western, but not necessarily by local media may contribute to women's body dissatisfaction.

A common feature among most visual media is the use of female pictures to advertise a wide variety of products. Regardless of the content of the ads, the most popular image of women is one of a sex object (Stankiewicz & Rosselli, 2008). Although the primary aim of ads is to encourage people to buy products, it has been often suggested, that they may have more wide-ranging effects on viewers' attitudes, beliefs and their self-perception. In particular, those ads that depicted women in a sexist manner may lead to distort body images by setting unrealistic standards of female beauty and thinness. In addition to their potential effects on women, the exposure to ads that depict women as sex objects may also influence male's body perception, in particular the perceived characteristics of men to which sexy women are attracted. In this vein, Lavine, Sweeney and Wagner (1999) examined the causal effect on women and men's body dissatisfaction after the exposure to sexist (women are depicted as sex objects) versus nonsexist ads. As indexes of body dissatisfaction they looked at participants' actual relative to their ideal body size. Results showed that both women and men were influenced by sexist TV ads, but in opposing directions. Specifically, women exposed to sexist TV ads perceived their actual body size as larger and showed to have a larger discrepancy between their actual and ideal body size indicating that they preferred to be thinner than their perceived actual body size. In contrast, men exposed to sexist TV ads perceived their actual body size as thinner and indicated to have a larger discrepancy between their actual and ideal body size indicating that they preferred to be larger (that is athletic and muscular) than their perceived actual body size.

Adding to the importance of sociocultural factors in the development and maintenance of body image, Heinberg, Thompson and Stormer (1995) proposed a measure designed to document an individual's recognition of a cultural influence along with the internalization of these cultural beauty standards (SATAQ, Socio-cultural Attitudes Toward Appearance

Questionnaire). Research has shown a good convergence between SATAQ and existing measures of a distorted body image and eating disorders. In particular, the internalization factor that is the extent to which a woman has internalized the prevailing message regarding beauty promoted by the media (e.g., television, magazine, video music) significantly predicted higher levels of body anxiety, body dissatisfaction, drive for thinness and eating disorders in college women.

While the research mentioned above focused on women in general, Calogero, Davis and Thompson (2005) have investigated the link between self-objectification and drive for thinness in a clinical sample of women with eating disorders. They found that the internalization of the media beauty ideals (and not just information or pressures from the media about appearance) contributed to self-objectification. This result implies that viewing sexually objectified images of women in the visual media may contribute to chronic forms of self-objectification and that once this beauty standard becomes an integral part of one's self-image both factors may contribute at least in part to the development and maintenance of eating disorders in women.

In sum, we have discussed the influence of Western visual media in promoting unrealistic ideals about body appearance and its consequences for women's self-perception. Specifically, we have pointed out that such influence can translate for women in body dissatisfaction (Swami et al., 2010; Lavine, Sweeney, & Wagner, 1999) and play a role in the development of eating disorders (Heinberg, Thompson, & Stormer, 1995). Moreover, the internalization and not the mere information or awareness of beauty ideals promoted by the visual media represents a health risk factor for women who already have eating disorders (Calogero, Davis, & Thompson, 2005).

In most occasions the literature on self-objectification and its consequence for physical and mental health has involved women: objectification theory is based on the premise that

cultural pressures and prescriptions regarding beauty are mainly addressed to women. Nevertheless, the exposure to images that depict women as sex objects may influence body perceptions even among men in particular their perceived muscularity and robustness, characteristics that are thought to attract the attention of sexy women (Lavine, Sweeney, & Wagner, 1999). In a similar vein, research has found that men report higher levels of appearance anxiety and appearance-related motivation for exercise when they were exposed to fashion magazines in which women were presented as sex objects (Aubrey & Taylor, 2009). In sum, both women and men may suffer the exposure to idealized and sexualized female bodies promoted by Western media. However, the content and the intensity of this effect vary between genders. There is a growing body of research that suggests that men are more sensitive to their body perception in terms of muscular mass and strength, while women are more sensitive to their body size in terms of thinness. More importantly, the consequences are more pervasive and harmful for women than for men. An ever-increasing amount of evidence collected within the objectification framework has demonstrated that repeated sexual objectifying experiences can promote processes of self-objectification and body surveillance in women, but hardly in men. This chronic body-focus can represent an antecedent of a cascade of physical and mental discomforts that disproportionately affects women. Below the relationships between self-objectification and women's physical and mental health is schematically represented (see Moradi and Huang, 2008).

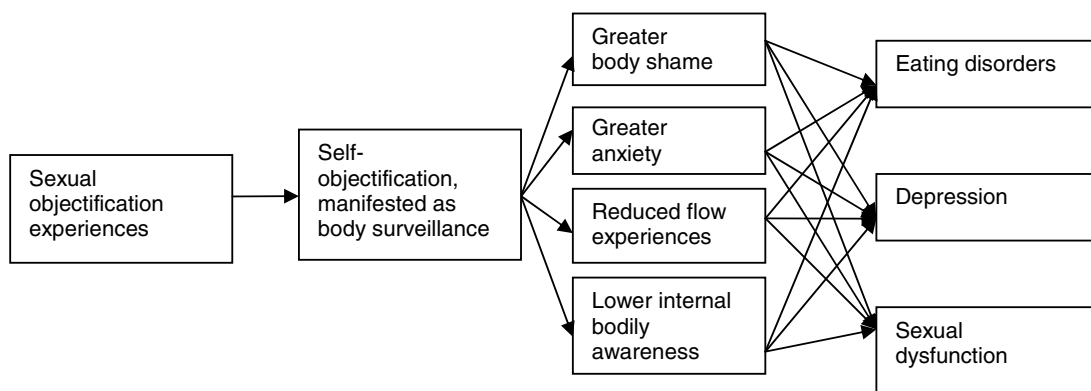


Figure 1: Objectification theory framework.

1.2.2 Objectifying others: Dehumanization of sexually objectified female targets

Objectification can be an intrapersonal as well as an interpersonal phenomenon. In this last case it involves two social targets: the one who objectifies and the one who is objectified. Objectification occurs when an individual focuses on the physical appearance of another person, in particular on another person's body. Objectification theory posits that male heterosexuality lies at the basis of the sexual objectification of women, but recently research has shown that also women objectify other women. Strelan and Hargreaves (2005) have shown that both males and females objectified other women. Specifically, they showed that men objectified other women more than they objectified themselves and other men. On the contrary, women objectified other women more than they objectified themselves, but they did not objectify other women more than they did with other men. Note that men still objectified women more than women did, but results indicated a clear tendency of women to objectify other women. In the work of Strelan and Hargreaves (2005), objectification was measured asking participants the importance men, women or they themselves attributed to the appearance of their body over and above its health and competences. Recently, the meaning of objectification has been extended. Fredrickson and Roberts (1997) already 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 parts of it that exist for the use and consumption of others, stripped of their individuality and personality. The first part of this definition, indeed, 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. As the definition highlights, 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 and attract the attention on some product. The other aspect that is associated with a narrowed body-focus, according to this definition, is that the

objectified are potentially 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. But what do we mean with the word "human" or humanness as a dimension of social judgment? Recently, Haslam (2006; see Haslam et al., 2008 for a recent review) proposed two different ways in which humanness can be defined: on the one hand humanity can be conceptualized as the possession of Uniquely Human characteristics (UH) that are specific traits that distinguish humans from animals (e.g., civility, refinement, morality, higher cognition). These traits are thought to be acquired and subject to variation among people and cultures. On the other hand, humanness can be understood non-comparatively, examining its typical or essential characteristics. This conception of humanness comprises the Human Nature dimension (HN). Human Nature traits involve warmth, emotionality, agency, and cognitive openness and are considered as shared and fundamental characteristics that are embedded in each person (Haslam, 2006). To these two senses of humanness correspond two forms of dehumanization, according to which sense of humanness is denied to others. *Animalistic dehumanization* occurs when uniquely human traits are denied to others that in turn are perceived as more closely linked to animals, while *mechanistic dehumanization* is implied when human nature traits failed to be attributed to others. In this case, others are perceived as cold, lacking emotionality like robots or automata. The relation between objectification and dehumanization has recently been examined by social psychologists. Initial evidence stems from Heflick and Goldenberg (2009) and Heflick, Goldenberg, Cooper and Puvia (in press) who have focused on the mechanistic dehumanization of objectified targets. In a first study Heflick and Goldenberg (2009) asked participants to focus on and write about either the appearance or the personality of famous female targets (Sarah Palin or Angelina Jolie). They subsequently asked participants to rate each target on a series of personality characteristics (e.g., intelligent, competent, capable) and to indicate how much each trait was high on human nature. Compared with participants who

had a personality focus, those who focused on these women's physical appearance ascribed them less human nature traits. In a further series of studies, Heflick and colleagues (in press) extended these latter findings showing that female, but not male targets were perceived as less competent and less warm when participants were instructed to focus on and write about their appearance compared their personality. Much like Harris and Fiske (2006) showed that people that were judged both low in competence and warmth are dehumanized, Heflick et al. (in press) concluded that the denial of these two fundamental dimensions of social perception (Fiske, Cuddy, & Glick, 2007) signals that a female (but not a male) target is dehumanized when observers employ an appearance-focus.

If these studies focused on the human nature dimension, Vaes and colleagues (2010) have strictly addressed the animalistic dehumanization of male and female targets that were either sexually objectified or not. More specifically, Vaes and colleagues (2010) confronted the implicit associations between uniquely human (culture, nose, tradition, values, foot) versus animal related words (nature, paw, snout, instinct, and hibernation) and sexually objectified (body and its' sexual parts were more salient compared the face) versus non-objectified (the face was more salient compared to the body) images of male and female targets. Results indicated that among all targets only sexually objectified female targets were not preferentially associated with human related words and in turn the subtle dehumanization along the uniquely human dimension.

Loughnan and colleagues (2010) have investigated a different aspect of objectification that is the denial of personhood or depersonalization (the denial of mental states and moral concern). More specifically, they demonstrated that male and female participants attributed less mental states (e.g. intentions, thoughts, perceptions, emotions) and less moral consideration to objectified female targets. In addition, when objectified even male targets reserved less mind attributions, though in a lesser degree compared to their female counterparts.

Recent social-neuroscience research is drawn to similar findings: Cikara, Eberhardt and Fiske (in press) have measured the brain activity of male participants when they were presented with images of objectified and non-objectified female targets and found that objectified images failed to activate the brain regions that are involved in the attribution of mind to social targets.

Together these findings provide direct evidence that when objectified, especially women are seen as lesser human beings. This harmful denial may involve two different senses of humanness: that what is typical or essential to our human nature (*mechanistic dehumanization*; Heflick & Goldenberg, 2009; Heflick et al., in press) or that what distinguishes us from animals (*animalistic dehumanization*; Vaes et al., 2010). At the same time, studies have shown that objectification leads to a reduced perception of both male and female target's mind and moral status (Loughnan et al., 2010) and it fails to activate brain regions associated with mental state attributions (Cikara et al., in press). Together, these last two studies show that objectification and its resulting focus on the person's body reduce the attribution of mind to that target. Even though no studies have directly examined the link between the attributions of humanness and mind, different authors propose that these concepts are strictly related (e.g., Leyens, Vaes, & Paladino, in press; Grey, Grey, & Wegner, 2007; Waytz et al., in press). Future research should determine how these different dimensions are related, and how it comes that the denial of humanness seems unique to objectified female targets (Heflick et al., in press; Vaes et al., 2010), while the denial of mind seems to apply to both objectified male and female targets (Loughnan et al., 2010).

As far as the gender of the perceivers is concerned, all studies that compared male and female perceivers found that the denial of humanness of objectified female targets occurs regardless of the gender of the perceiver. Both women and men engaged in dehumanization of objectified female targets (Heflick and Goldenberg, 2009; Heflick and colleagues, in press; Vaes, Paladino and Puvia, 2010) and in the denial of mind of male and female targets in the

studies of Loughnan and colleagues (2010). In doing this, however, research has indicated that both genders are motivated by different factors.

For women sexually objectified female targets represent exemplars of the same gender group but at the same time potentially pose a problem. Images of women in sexually provocative poses are ever more often used in advertisement to sell a wide variety of consumer products. Most of the time TV ads contain gender-stereotypic ideas and images (Lavine, Sweeney & Wagner, 1999), present unattainable beauty standards and the sexualization of their bodies is unnecessary and irrelevant to the advertised product. Davies and colleagues (2002) showed that the exposure to gender-stereotypic television commercials had detrimental effects on women's academic performance and achievement-related choices. Sengupta & Dahl (2008) have investigated gender reactions to the gratuitous use of sexual images in advertisement and found that women reacted more negatively than men judging a sex-based ad as more offensive and less likable. As a consequence, women react to these threatening depictions distancing themselves from sexually objectified depictions of women. Following this reasoning Vaes et al. (2010) confirmed that women's tendency to dehumanize sexually objectified female targets was driven by their tendency to distance themselves from these female depictions.

Men, instead, are expected to dehumanize objectified female targets because they are sexually attracted to them. For example, Gruenfeld and colleagues (2008) have shown that priming a sex goal enhances the desire of male participants in a high power position to work with a female target that was not particularly useful for performance objectives, but was instrumental for their sex goals. In a similar vein, Rudman and Borgida (1995) have demonstrated that when primed with sex-related words males increased their sexually motivated choices, expressing an increased intention to hire a female confederate because of her good looks and not for her competence. These findings concur with objectification theory that starts from the premise that males' heterosexual motivation lie at the basis of sexual

objectification. When sexual objectification occurs, females are reduced to certain body parts that serve a sexual function and seen as instrumental to fulfill a male's sex goal. This body-focused perception puts the objectified female's personality and individuality to the background and inclines men to attribute them less humanness. This process was confirmed by Vaes et al., (2010) who showed that males when primed with a sex goal objectified female targets to a greater extent increasing their body focus and dehumanized these female targets attributing them less uniquely human characteristics.

Taken together, the above mentioned studies confirm that objectified women are the preferred targets of dehumanization. Compared to men, sexual female objectification has shown to be more pervasive and harmful and able to jeopardize a vast range of their lived experiences.

1.3 Overview of the present research

In the following chapters we will investigate the specific case of female sexual objectification. The most evident characteristic of objectification is its harmful nature that disproportionately affects women compared to men. At an individual level, self-objectification can undermine women's well-being representing a potential threat that can translate into higher degrees of body dissatisfaction, body-shame and anxiety, depression, eating disorders, and sexual dysfunctions. In most cases, research on self-objectification has focused on the potential unhealthy consequences of the phenomenon for the female body neglecting its consequences in other domains, like women's cognitive performance. Only few exceptions have demonstrated that self-objectification decreases females' cognitive performance in different domains: math performance (Frederickson et al., 1998), attentional resources (Quinn et al., 2006) and memory (Gay & Castano, 2010).

Following this line of research in the next chapter (Chapter 2) we will investigate the effects of the exposure to the process of self-objectification on women's self-perception, but with some

important changes. The typical experimental manipulation involved the body and implied asking female participants to wear a swimsuit (self-objectifying condition) or a sweater (non-objectifying condition) (see Frederickson et al., 1998) or to videotape their bodies (see Gay & Castano, 2010) or to react to words referring or not to the body (see Quinn et al., 2006). Afterwards, female participants' cognitive performances were assessed. Differently and to our knowledge for the first time, we propose a different source of self-objectification, that is, the face instead of the body and more specifically the use of makeup as a potential self-objectifying practice. In a couple of studies we will test the hypothesis that makeup could be a self-objectifying practice that in turn has a negative impact on women's cognitive performance. In order to test these hypotheses, two studies were created. In a first study (Chapter 1 Study 1), participants were asked to describe themselves getting ready for either a romantic date, to go out with friends or for a job interview. Based on the definition of self-objectification, we hypothesized that instead of being a tool through which women can express their personality, the use of makeup will be related to their tendency to self-objectify. In addition, we hypothesized that only when their competence is expected to be evaluated (i.e., a job interview), the intention to wear makeup will lead female participants to perceive themselves as less competent showing the typical negative effect of self-objectification on women's self-reported competence. In Study 2 (Chapter 1), we directly examined the effect of a makeup manipulation on females' cognitive performance. Female participants were instructed to put makeup on a photograph of their face, to paint the background around their picture, or to paint a picture of a flower. Subsequently, they were confronted with a standard Stroop task. We hypothesized that the expected increased concerns with woman's physical facial appearance can decrease her available cognitive resources. More specifically, we expected that the confrontation of one's face with makeup would undermine female participants' performance in the cognitive task.

As far as the objectification of others is concerned, the findings reported above (see for example Vaes et al, 2010) show that women are the preferred targets of dehumanization regardless of the dimension of humanity that is under examination (animalistic versus mechanistic). At the same time these studies have showed that the dehumanizing character of objectification occurs regardless of the gender of the perceivers. Objectification theory itself posits that male heterosexuality lies at the basis of female sexual objectification. When it occurs, a body-focus drives men to put women's appearance at the forefront losing out on their personality and this shift can facilitate their dehumanization. But why would women dehumanize other women?

As we noted above, sexually objectified female targets potentially pose a problem for women. One possibility is that women react to these threatening depictions distancing themselves from objectified female targets and in turn dehumanize them.

First evidence that has demonstrated this effect comes from Vaes et al. (2010; see Study 2) who have shown that the sharper female participants differentiated between objectified and personalized female targets and the less they reported to feel close to sexually objectified depictions of female targets, the more they tended to dehumanize them. These results hint to the possibility that sexually objectified women were seen as a separate female subcategory from which women want to distance themselves. Following this reasoning in a Study 3 we aimed to investigate if changing the social meaning of this subcategory, making it more or less easy to include it in the overall gender category, could change the way women perceive sexually objectified female targets in human terms. Focusing on inter-individual difference variables, in Study 4 we hypothesized that perceiver and target characteristics jointly work to determine women's dehumanization of objectified female targets.

More specifically, two studies (Chapter 3 Study 1 and Study 2) were designed that built on the initial insights of Vaes et al. (2010) and that aim to get a better understanding of the reasons why women might dehumanize their sexually objectified counterparts. For this reason only

female participants were involved. Both studies focused on the attribution or denial of uniquely human versus animal characteristics with objectified female targets (Study 1) or with objectified and non-objectified female targets (Study 2) in both cases measuring the animalistic dimension of dehumanization.

In a first study (Chapter 3 Study 3), we considered the significance that sexually objectified depictions could have for women in general. Previous research (Vaes et al., 2010) has suggested that they can be seen as a subcategory of the overall gender group that is disliked because they promote a culture in which women are objectified and in which (sexy) looks is the most important female characteristic diminishing the importance of competence or intellectual abilities. At the same time, however, these women, much like all women, could be portrayed as victims of an objectifying culture that depicts them in this way and judges them for their looks. In a final study, we hypothesize that sexually objectified women will be dehumanized in the former case, while they should be seen as full human beings in the latter case, likely because they get included again in the overall female gender category.

Finally (Chapter 3 Study 4), the effect of different personality characteristics that could moderate the dehumanization of sexually objectified female targets was taken into consideration. First we considered participants' level of self-objectification. Previous research has shown (Strelan & Hargraves, 2005) that especially those women who self-objectify also objectified other women. We reasoned that the tendency to be more sensitive to one's own appearance could translate into a tendency to put great attention on other women's appearance with two possible outcomes: a woman can perceive sexually objectified female targets as competitors or as models to identify with. To disentangle these processes we inserted two measures: one that assessed women's identification with sexually objectified targets and one that measured their heterosexual motivation, that is, female's motivation to pay attention to their looks to attract male attention. We hypothesized that especially those women, who were motivated to look attractive for men, would consider objectified female

targets as competitors, and therefore, dehumanize them. On the contrary, and in line with previous research (Vaes et al., 2010) that has shown that women who identify with sexually objectified depictions of their gender category tend to humanize them, we hypothesized that those women who consider sexually objectified targets as models to identify with should tend to humanize them.

CHAPTER 2: Makeup usage as a self-objectifying practice and its' consequences on women's cognitive performance

"There are no ugly women only lazy ones"

Helena Rubinstein (1978)

In this chapter we will investigate the psychological function of makeup use on women's self-perception. According to the literature that has shown the disruptive effect of self-objectification on women's cognitive performance (for example, Gay & Castano, 2010), we hypothesize that makeup usage might be a self-objectifying practice that can undermine women's cognitive performance.

Studies about objectification have generally individuated the body as a whole as the primary source of objectification: It is the body that women learned to look at and evaluate. Self-objectification has been defined as the process by which women take a third person perspective on the self and come to believe that they are defined by their looks. Several studies have shown that the media are a primary source of self-objectification (Calogero, Davis, & Thompson, 2005). Looking at sexually objectified images of women in the visual media (e.g., magazines, music videos, television shows) may contribute to a chronic ideal of the self as a sex object that must conform to impossible beauty standards. Even though over time Western beauty ideals have shown marked variability, from the slender and flat-breasted feminine ideals to the curvaceously thin beauty icons (Harrison, 2003), they always represent a non-realistic female body image. Nonetheless, this beauty ideal gets encouraged consistently by the media, and is taken by most women as a point of reference in their efforts to improve their bodies and their looks.

The extent to which a woman's appearance approximates the ideal beauty standard is generally taken as a criterion to assess her attractiveness. Remarkably, most research studying the impact of these standards of female beauty only focused on concerns that are related to weight and body shape, disregarding the arguably most important physical feature in defining beauty, that is, a person's face. The face is the first visible source of information in every day interpersonal encounters; moreover, enhancing facial attractiveness through the use of cosmetic products is a relatively easy goal for most women to attain. Makeup is one of the most popular tools used by women to enhance their facial attractiveness: There is a wide range of products advertised to enhance facial characteristics (e.g., foundation, blusher, powder, covering stick, mascara, eye shadow, eye-liner, lipstick, lip liner, lip gloss). Each of these products allow women to hide their imperfections, artificially enlarge the appearance of their eyes and lips, make their skin of an appropriate tone and texture, in other words make their face look younger, healthier and more attractive.

Between cultures and over time, beauty has always been considered an important value. Although there is a widespread agreement regarding the value of beauty per se, it is possible to introduce different hypotheses regarding its role and its social meaning and the specific contribution that makeup makes in shaping it.

According to evolutionary psychology (Fink & Neave, 2005), beauty standards are innate; although they may vary between cultures and over time, members of different ethnic groups share common standards to define attractiveness. These standards provide information about a woman's reproductive potential, better represented by waist-to-hip ratio. However, also features of the human face determine what is beautiful and reflect universal biological selection pressures that have shaped these standards. According to these theories, a smooth and hairless skin in women are the most universally desired features (because of their association with feminine hormones), slightly reddish skin (indicating good blood circulation) is considered attractive and healthy, as well as the luminance of certain facial features in

particular of the eyes. A central feature in the lower face is a woman's lips: when they are full and well defined they give a sense of health and attractiveness. The most often used color for lipstick is likely red; it signals both good blood circulation and is linked with increased emotional arousal and sexual excitement (Morris, 2004). It is easy to note that each of these features can be enhanced by cosmetic products. From an evolutionary point of view, then, the beauty of a female face is biologically determined and the cosmetic industry taps into this by enhancing facial features making them resemble more closely to those qualities that are universally considered signals of beauty and attractiveness.

Another hypothesis starts from the premise that beauty is socially constructed. From this perspective "beauty is in the eye of the beholder", reflecting cultural conventions. In contrast to the evolutionary perspective, feminist scholars have offered a very different explanation for the motivation behind the cultural emphasis on beauty, and thus, the role of makeup in shaping it. They proposed that beauty standards and practices are vehicles for the oppression of women, sign women's inferior status and determine their differences from men. The processes through which beauty ideals oppress women are complex and multifaceted; in the literature this process is known as the BIO hypothesis an acronym for 'Beauty Ideals are Oppressive' (Forbes et al., 2007). The BIO hypothesis has important implications because it underlines the social meaning and function of beauty inquiring the social purpose it serves. Among others, one possibility is that western beauty demands, shift social awareness from women's competencies to superficial aspects of their appearance, undermine women's self-confidence, dissipate their time, and their emotional and economic resources. In line with this claim, recently Swami and colleagues (2010) have showed that media exposure predicted women's cosmetic use and men's perceived need for women to use it.

Within the feminist framework, Bartky in her influential work, "Femininity and Domination" (1990), provides an in deep analysis about the role and significance of makeup use and practices. As she notes one of the most popular and pervasive claims publicized by fashion

magazines and ads is that “making up is an aesthetic activity in which a woman can express her individuality”(Bartky, 1990, pag.71). According to Bartky, there is a difference between painting the face and painting a picture, in the first case we are confronted with the same picture over and over again with the possibility to apply only minor variations. Moreover, a woman who decides to express her personality in a genuine, novel and imaginative way is liable to be seen, not as an artist, but as eccentric. Every woman knows that little is permitted in what is considered appropriate makeup at work, for a night out or for some special social occasion. Furthermore, application of makeup is for the most a task that needs effort, discipline and specialized knowledge regarding the correct use of application that a woman must learn in order to manage a wide variety of products. All these duties and abilities regard only women not men, who are not stigmatized if they decide to just follow the ordinary standards of hygiene.

Finally, there is a third way to consider the role of makeup and the significance that it serves. We have noted above that makeup is advertised as an art, but rather than the art to express our personal inclinations, the application of makeup very often is the art to hide a myriad of deficiencies. In other words, makeup may be considered the quintessential art to disguise.

Robertson, Fieldman and Hussey (2008), have proposed that makeup might be used as a mask, able to manipulate facial features in order to present one’s own positive image to others. They investigated how different personality traits could affect cosmetic use. The aim was to understand the psychological motivations behind cosmetics use. In a correlational study only female participants answered questionnaires regarding different personality traits and their cosmetic use. Results showed that the use of makeup was positively correlated with traits as self-presentation, conformity, self-awareness and introversion, and negatively correlated with social confidence, emotional stability, self-esteem and physical attractiveness. According to the authors, the former group of traits denotes a person’s awareness of and interest in their physical presentation and the following desire to manipulate it according to

an image that is less individual and more conformant to social preferences and expectations. Makeup, then, would be a de-personalizing mask that women can use to manipulate and promote their desired, public image.

2.1 Cosmetic use and impression formation

Despite its popularity, there has been a relative lack of research accounting the effect of cosmetic use on personality (but see, Robertson et al., 2008). Almost all studies in this field of research have focused on the effect of cosmetic usage on impression formation, the central question being: Do cosmetics affect the way women are perceived? Usually, researchers have shown images of women's faces with or without makeup applied by an aesthetician or by participants themselves asking respondents to judge the target on several, socially-relevant personality traits.

Following this procedure, Mulhern and colleagues (2003) found that cosmetics have a positive effect on the facial attractiveness of Caucasian women. Moreover, they showed that the contribution of different cosmetic products (e.g., foundation, makeup for the eyes, makeup for the lips) is not separable, and thus, work together to enhance female facial beauty: both men and women judged faces with full makeup more attractive than the same faces without any makeup or with just one cosmetic product at a time.

Nash et al. (2006), have investigated the influence of cosmetics on social variables. Participants were presented with 4 Caucasian women's facial pictures either with or without cosmetics. Results showed that women presented with makeup were judged to be healthier and more confident; they were assigned greater earning potential and considered to have more prestigious jobs than when they were presented without makeup.

These last results are consistent with others that have shown that women who wear cosmetics can manipulate their perceived social position and in turn influence the way in which they were evaluated by others especially in situations in which appearance is

important (Fatt, 2000). Moreover, Chao and Schor (1998) have shown that educated Caucasian American women use cosmetics as a status symbol. They spent significantly more on expensive brands than less educated women, especially with products that are socially or publically visible (e.g., lipstick) compared to cosmetics with a low level of social visibility (e.g., facial cleaners).

Together these results contradict prior research that suggested that cosmetics could have a detrimental effect in a professional context. When comparing the professional competence of woman with or without makeup, women wearing cosmetics were judged to be less competent and attributed lower salaries than women with no makeup (Kyle & Mahler, 1996). Previous investigations regarding the possible negative effect of cosmetics use in professional contexts, suggests that its effect is only significant for women applying for lower status positions, such as secretarial work. Indeed, wearing cosmetics did not influence the perception of competence in women applying for prestigious positions, such as accountancy (Cox & Glick, 1986). Moreover, Kyle and Mahler suggested that the negative effect that they found could be due to the perceived femininity of the targets. It could be that the perception of a woman's competence is mostly undermined by the perceived femininity that was reported by participants and not the targets' cosmetic use per se.

Other studies have pointed out and shown that the use of cosmetics has – at best – mixed (positive and negative) effects on impression formation. For example, Huguet, Croizet and Richetin (2004), have shown that when assessed at an explicit level makeup has a negative impact on perceived personality traits. In their study, participants were presented with female targets wearing or not wearing makeup and they had to rate each target on physical attractiveness and both on positive (e.g., honest, intelligent, kind, self-confident, sociable) and negative (e.g., shallow, submissive, unfaithful, vain) personality traits. Results show that female targets were perceived as more attractive when wearing makeup than when not, but at the same time, cosmetics use increased attribution of negative traits. This negative effect was

not mediated by perceived physical attractiveness, indicating that makeup might have a direct influence on perceived personality traits and thus that the effect of makeup may not necessarily result from an enhancement of physical attractiveness per se. In a further study, Richetin, Croizet and Huguet (2004) showed that when assessed at an implicit level makeup, may elicit positive attitudes. They performed three IAT (Greenwald et al., 1998) experiments using photographs of female faces with or without makeup in combination with pleasant versus unpleasant words (e.g., health vs. poison; Study 1), with positively versus negatively connoted personality traits (e.g., intelligent vs. cold; Study 2) and with words related to high versus low status jobs (e.g., journalist vs. secretary; Study 3). They found that participants responded faster when the attributes “makeup” and “positive traits or words” shared the same response key. Likewise, the same pattern was found when “makeup” and “high status job” shared the same response key.

So, there seems to be an incongruence between the use of cosmetics and its effects on impression formation. In this regard, Richetin and colleagues (2004) suggested that makeup is automatically associated with positive attributes; the negative person perceptions, instead, may depend on two normative variables. First, in their earlier work (Huguet et al., 2004), these authors have shown that makeup as it appeared on the female targets was perceived acceptable but slightly overdone. This result indicated that makeup use is more accepted and likely to exert a positive influence on people’s impression formation when it is applied in a subtle way. Second, the effect of cosmetics was different according to participants’ student membership: psychology students reported the least favorable effect of cosmetics in impression formation and their attitude toward makeup was also the least positive. Business and especially aesthetic students showed more positive effects in comparison. These differences might be due to different normative beliefs, given that the latter group of students is trained to use and value cosmetics and likely agrees with the idea that physical appearance is an important basis for social judgment.

To conclude, the negative impact of cosmetics seems to depend on normative factors that dictate what is acceptable with respect to the contexts and ways of cosmetic use. Even though this can result in a negative reaction towards women wearing cosmetics in certain contexts, at the implicit level they all tend to hold a positive attitude towards faces with makeup.

2.2 Makeup, competence, and cognitive performance

Despite of its popularity, cosmetics have mixed and ambivalent outcomes for its users. The volunteers within several studies cited above (Mulhern et al., 2003; Nash et al., 2006) reported feelings of enhanced well-being and improved self-worth after their makeover. On the contrary, Robertson and colleagues (2008) have shown that personality variables as social confidence and self-esteem are negatively correlated to cosmetic use. In addition, they examined several aspects of intelligence (e.g., intellectual depth and complexity, social, personal and emotional intelligence) as personal variables able to predict the use of cosmetics. Even if the relation between all aspects of intelligence and cosmetic usage came only close to reaching significance, the direction of this link was negative. The authors interpreted this result in terms of an interplay between intellectual strength and need for facial enhancement: if one's intellectual abilities are not seen as a strength, cosmetic use is expected to increase given that a good-looking mask allows to hide this deficit. Conversely, as one's perceived intelligence increases, the need to control one's looks is expected to be reduced.

In order to study the influence of makeup use on women's self-perceptions, we started from Objectification Theory (Bartky, 1990; Frederickson & Roberts, 1997). According to this theoretical framework, girls and women are socialized to view themselves as objects to be appreciated by others. In Western societies, physical attractiveness is positively correlated with personal as well as social and economic achievements and society encourages this link. As a result, girls and women have learned to put great emphasize on their physical

appearance and in turn to internalize an observer's perspective on the self, that is, they self-objectify. If on the one hand, living up to the standards of value – including beauty standards – prescribed by one's culture has positive effects on one's self-perception, several studies have demonstrated that this form of habitual monitoring on the body can disrupt the stream of consciousness and thereby limit the mental resources available for other activities.

Specifically, Frederickson et al. (1998), have demonstrated that self-objectification decreases females' but not males' math performance (Study 2). After the request to wear a swimsuit or sweater for an ostensible study on consumer behavior, participants had to complete math problems. Compared to the sweater, the swimsuit condition was thought to be a self-objectifying experience in which one assumes a third-person perspective on the body. Results showed that whereas men's performance was unaffected by the experimental condition, women in the swimsuit condition performed worse on the math test than did women in the sweater condition.

Objectification theory stated that the poor performance triggered by a self-objectifying experience is not specific to gender-relevant domains, like mathematics that is part of the gender stereotype. In line with this claim, Quinn and colleagues (2006), have demonstrated that self-objectification decreased performance in a Stroop task. They used a slightly modified version of the classic Stroop color-naming task including in addition to color words, body and neutral words. As in the Frederickson et al. (1998) study, the manipulation of self-objectification was obtained asking to participants to wear a swimsuit or a sweater. This time, however, only female participants were recruited. Results showed that self-objectification has a disruptive effect on woman's attention: in the objectification condition female participants took longer to respond to all types of Stroop words. At least in part, this finding rules out the possibility that previous findings by Frederickson and colleagues were due to stereotype threat explanations and show that self-objectification per se has negative effects on women's cognitive performance.

More recently, Gay and Castano (2010) have shown that self-objectification increased woman's cognitive load resulting in an impaired cognitive performance in a Letter Number Sequencing task (LNS). In this experiment, high self-objectification was induced by a male experimenter who only videotaped the female participants' bodies while they were walking on a catwalk, first from the front and then from behind.

2.3. Makeup use and woman's self-perception

The present research examines the psychological function of makeup use on women's self-perception. Previous research on cosmetic usage focused on impression formation, taking an interpersonal perspective. The typical experimental manipulation was characterized by a female target who was wearing makeup or not and participants were required to evaluate the target according to several personality and aesthetical traits. The present research focuses on the influence of makeup use on a female's self-perception and her actual performance proposing, to our knowledge for the first time, the face with makeup as a source of self-objectification. We reasoned that according to the definition of self-objectification, when wearing makeup a woman might experience increased concern with her physical facial appearance adopting an observer's perspective towards the self. As research on self-objectification has shown, such increased monitoring of the physical self can disrupt the flow of consciousness and lead to a decrease of a woman's available cognitive resources.

To test these hypotheses two studies were designed. In a first study participants were asked to imagine and fully describe themselves getting ready for either a romantic date, to go out with friends or for a job interview. We hypothesized that while applying makeup for a romantic date or an evening out with new friends may enhance one's self-perception, in a context in which the ambivalence between to look pretty and to look competent is more salient, such as a job interview, wearing makeup can undermine self-perception, in particular self-perceived competence.

The second study directly examined actual competence as a function of a makeup prime. Female participants were instructed to put makeup on a photograph of their face, to paint the background around the photograph of their face, or to paint a picture of a flower. After their perceptions of competence were measured. Finally, they were confronted with a Stroop task. We expected a discrepancy between self-reported and actual competence (i.e., performance on the Stroop task) as a function of the makeup prime: specifically, we expected that focusing on the self with makeup would maintain or even enhance women's perceptions of self-competence, but undermine their performance in a cognitive task.

2.4 Study1: Role-play study

In this study, participants were instructed to imagine and fully describe themselves getting ready, that is apply makeup, for one of three events: for a romantic date, for a job interview or to go out with friends. Based on objectification theory (Bartky, 1990; Frederickson and Roberts, 1997), according to which self-objectification is manifested by a habitual surveillance of one's outward appearance, we hypothesized that applying makeup could be a self-objectifying experience that increases women's concerns with their physical appearance. To test this hypothesis, a trait measure of self-objectification was inserted at the beginning of the experiment (Objectified Body Consciousness Scale, OBC, McKinley and Hyde, 1996). We expected to find a positive correlation between OBC and makeup use indicating that those participants that have a higher tendency to self-objectify are also more prone to use makeup in a variety of situations. Given its link with self-objectification, makeup use is also expected to have an effect on self-perception. The few studies that have looked at women's self-perceptions when wearing makeup showed that the use of cosmetics was linked with lower levels of social confidence and self-esteem (Robertson and colleagues, 2008). In a similar vein as Richetin and colleagues (2004), who proposed that makeup would elicit positive or negative evaluations depending on normative factors that dictate what is acceptable in certain

contexts, we proposed that applying makeup in a context in which not so much appearance related qualities, but especially one's competence is evaluated, could undermine self-perception along the competence dimension. More specifically, we predicted that while applying makeup for a romantic date or an evening out with new friends may have positive effects on woman's self-perception especially on appearance related traits, in a context in which the normative pressures to appear competent would be more salient such as a job interview, wearing makeup could undermine a woman's self-perception of competence.

In this first study, we also wanted to test another hypothesis linked with another sense of self-perception that is self-perceived humanness. There is a growing body of research that has shown that objectification may lead to subtle forms of de-humanization. Indirect evidence stems from Archer and colleagues (1983) who showed that a lower face-ism index (i.e., the proportion of the face relative to the rest of the body) with which women are represented in visual media resulted in the attribution of less intelligence. More recently, Heflick and Goldenberg (2009) demonstrated that a focus on the body compared to the personality of a famous female target reduced the ascription of human nature traits to these targets. While this research focused on the attribution of humanity to others, recently Haslam and his colleagues (2005) has demonstrated that people also tend to attribute more human traits to themselves compared to others, an effect called "self-humanization". Importantly, this effect is independent of self-enhancement, that is, the tendency to see oneself as better than others and only regards human nature traits (i.e., the core of our human essence) and not uniquely human traits (i.e., human dimension that distinguishes us from animals)(see also, Loughnan et al., 2010). More directly Robertson and colleagues (2008) proposed that makeup could be used as a de-personalizing mask. Based on these findings and further demonstrating the self-objectifying nature of makeup use, we expected to find a negative correlation between makeup use and self-humanization and between self-objectification and self-humanization.

To test these hypotheses, after the makeup manipulation female participants were asked to report how they felt using 17 different traits representing 4 dimensions of self-perception: competence, warmth, attractiveness and refinement. It has been shown that warmth and competence are universal dimensions of social judgment that are fundamental aspects of how individuals and groups are perceived (Fiske, Cuddy & Glick, 2007). In line with our main prediction, we expected that female participants would lower their self-perceived competence the more they reported to use makeup when preparing for the job interview. Participants were then asked to judge the same 17 traits but this time they rated the degree to which they were aspects of Human Nature, they represented Uniquely Human traits that are not attributed to other species and they were desirable traits to possess. We expected that participants would self-humanize mainly on the Human Nature dimension, but would show a lowered self-humanization effect in relation to the extent they self-objectified and their intention to wear makeup.

2.4.1 Method

Participants

One hundred-seventy two female undergraduate students at the University of South Florida volunteered in the present experiment. Their age ranged from 18 to 59 years ($M = 20.45$; $SD = 4.44$). Forty-seven percent were Caucasian, 20.3% Hispanic, 19.8% African Americans, 3.5% Asian and the 9.3% were of other (unspecified) or more than one ethnicity. They received course credits for their participation.

2.4.2 Procedure and materials

Trait Self-Objectification. In order to assess participants' level of trait self-objectification participants were presented with the Objectified Body Consciousness Scale (OBCS, McKinley

and Hyde, 1996). They were first required to indicate the extent to which each item of the scale represents their typical behavior.

The OBCS is a 24-item questionnaire that assesses three dimensions of habitual body monitoring: body surveillance, body shame and beliefs about control. The surveillance scale includes 8 items that measure how frequently a woman watches her body focusing on its appearance instead of its internal feelings and signals. The Body shame scale includes eight items that assess the extent to which a woman has internalized the cultural body standards. Specifically, this scale measures the extent to which a woman believes her body does not fulfill the cultural expectations regarding her body making her feel a bad person. Finally, the eight items of the control beliefs scale assess the degree to which a woman believes that she can control her physical appearance if she works hard enough. In the present study, Cronbach's alphas indicated a fair internal consistency for the Surveillance, Shame, and Control Beliefs Scales ($\alpha = .77$, $\alpha = .78$, and $\alpha = .60$, respectively). We decided to calculate the index of trait self-objectification combining the Surveillance and Body Shame sub-scales in order to best capture the underlying dimensions of self-objectification: this index showed a good internal reliability ($\alpha = .82$). Moreover, a principal component factorial analysis revealed that the variables of the Surveillance and Body Shame scales loaded together onto the same factor, explaining 20.11 % of total variance while the items of the Control scale alone loaded on a different factor explaining 10.48 % of total variance. Participants were provided with a 1 (*strongly disagree*) to 7 (*strongly agree*) Likert scale to respond.

Makeup manipulation. The study was run in small group sessions with participants randomly assigned to one of three different conditions. Participants had to imagine to get ready for either a romantic date, for a job interview or to go out with new friends. In each context the importance of the interpersonal encounter was stressed. Participants were asked what they would do to get ready, knowing that the 'first impression is very important to make a favorable impression'. Then, it was suggested that many women apply makeup and that they

were required to imagine and describe the steps involved in applying cosmetics. In each condition, participants were presented with the same seven makeup alternatives: “*Would you apply foundation/blush/eye liner/mascara/eye shadow/lipstick/ other kinds of makeup?*” For each alternative participants were required to indicate whether they would apply this type of makeup (yes) or not (no). If they responded affirmatively, they were presented with open-ended questions in which they were asked to fully describe the steps involved in applying each cosmetic in order to make the manipulation as salient as possible.

Self-perception. Participants rated the degree to which 17 attributes best described them in that precise moment. Such attributes were related to competence (capable, skillful, intelligent, competent), attractiveness (attractive, beautiful, sexy, desirable, intriguing), warmth (warm, sincere, emotionally responsive, friendly, deep) and refinement (civil, sophisticated, cultured, refined). Participants were provided with a 1 (*very slightly or not at all*) to 5 (*extremely*) Likert scale to respond.

Humanness. Subsequently, they had to report the degree to which they would rate each of the traits they had used to describe themselves on the extent to which these traits were Uniquely Human (that is, experienced solely by human beings and not experienced by animals), an aspect of Human Nature (that is, it is typically or essentially human) and desirable to possess, using a 1 (*very slightly or not at all*) to 5 (*extremely*) Likert type scale. The order of the humanness scales was counterbalanced between participants. All participants started with the self-descriptions and had to judge the desirability of the traits in between both humanness scales. Instead, half of participants had to make human nature judgments directly after the self-descriptions and uniquely human ratings at the end, while the other half had to rate the human uniqueness of the traits first and human nature ratings in the end.

Once participants completed the package of questionnaires, they had to indicate their age, and ethnicity. They were fully debriefed and thanked for their participation.

2.4.3 Results

Trait self-objectification. First of all we verify the effect of self-objectification on all dimensions of self-perception and on the intention to wear makeup. The intention to wear cosmetics was calculated summing the different types of cosmetics participants indicated to use in the given context and ranged from 0 to 7 ($M = 4.23$, $SD = 1.65$). Then, the index of self-objectification was correlated with the mean amount to which participants reported to perceive themselves as competent, warm, attractive, and refined and participants' index of makeup use (see *Table 2.1*). The index of self-objectification was significantly correlated with the intention to wear different types of cosmetics ($r = .29$, $p < .001$). At the same time, however, the same index was significantly but negatively correlated with all dimensions of self-perception: competence ($r = -.26$, $p = .001$), warmth ($r = -.33$, $p < .001$), attractiveness ($r = -.24$, $p = .002$) and refinement ($r = -.19$, $p = .012$). These results showed that the more female participants were worried about their appearance the more they reported the intention to wear cosmetics. At the same time this increased appearance-concern showed to have negative effects on their overall self-perception: the more female participants chronically self-objectified themselves the less they reported to feel competent, warm, attractive and refined.

Table 2.1: Means and correlations of participants' self-perception, intention to wear makeup and participants' level of self-objectification.

	Mean	Self-objectification	Intention to wear makeup
Competent	4.02 (.67)	-.26**	-.15*
Warm	3.84 (.66)	-.33**	-.10
Attractive	3,2 (.9)	-.24**	-.09
Refined	3.50 (.74)	-.19*	-.07
Self-objectification	3.62 (.84)	1.00	.29**
Intention to wear makeup	4.23 (1.65)	.29**	1.00

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

Self-perception. First of all we verified if participants' self-perception could change according to the mere exposure to different conditions independently from the intention to wear cosmetics. A 3 (Condition: romantic date vs. job interview vs. new friends) one-way independent ANOVA was performed on participants' self-perceptions. No effects emerged (all $p'_s > .12$). In order to verify the effect of makeup on self-perception, participants' index of makeup use was correlated with the four dimensions of self-perception. This index correlated with none of the dimensions, except with perceived competence ($r = -.15$, $p = .05$), indicating

that an increased self-reported intention to wear cosmetics results in a loss of woman's self-perceived competence.

We predicted that wearing makeup would have negative consequences on perceived competence, in particular in a context in which actual competence is required and expected to be tested, such as a job interview. To verify this prediction, we calculated a hierarchical multiple regression predicting participants' level of self-perceived competence through their makeup use ($M= 4.28$, $SD= 1.75$, range= 0-12), and experimental condition (contrast coded as romantic date= 1, job interview= -2 and friends = 1). These variables were entered stepwise into the regression starting with the main effects and adding the interaction between condition and makeup use in step 2. *Table 2.2* presents the results of this hierarchical regression. Neither the experimental condition, nor participants' makeup use when entered alone predicted their perceived self-competence. As expected, their interaction effect predicted self-competence, even if this effect was only marginally significant ($b= .07$, $SE= .04$, $p= .08$). As is shown in *Table 2*, only in the job interview condition female participants reported to feel less competent, the more they intended to wear cosmetics ($r = .32$, $p= .02$).

Similar multiple regressions that aimed to predict participants self-perception on any of the other dimensions of social judgment (warmth, attractiveness and refinement) did not reach significance (all $p's > .17$).

Table 2.2: Hierarchical Regression Analysis of Self-perceived Competence.

	B	SE B	β
Step 1			
Constant	4,03	.05	
Condition	-.004	.04	-.01
Make up	-.05	.05	-.07
Step 2			
Constant	4.03	.05	
Condition	.00	.04	-.001
Make up	-.06	.05	-.10
Condition X Makeup	.07	.04	.15*

Note $R^2 = .005$ for Step 1; $\Delta R^2 = .02$ for Step 2 ($p = .08$). * $p = .08$

Humanness. To measure the attribution of humanness to the self, within-participant correlations were calculated between the extent to which each trait was used for participants' self-description (collapsing all dimensions of self-perceptions) and the extent to which each trait was judged as human. Two separate correlations were calculated for each participant: one between self-perception and human nature judgments and one between self-perception and uniquely human judgments. In order to normalize distributions, these correlations were transformed to Fisher Zs (see Michela, 1990). Self-perceived humanness was then analyzed in a 3 (Condition: romantic date vs. job interview vs. friends) X 2 (Order: human nature first vs. human uniquely first) X 2 (Humanness: human nature vs. human uniqueness) mixed – model ANOVA in which only the last variable was manipulated within participants. This analysis resulted in a main effect of Humanness, $F(1, 156) = 4.36, p < .001, \eta^2 = .22$, according to which participants attributed to themselves more Human Nature traits ($M = .25$) compared to Uniquely Human traits ($M = -.03$). This expected effect is in line with the results of Haslam and colleagues (2005) who showed that people self-humanize only attributing them more human nature, but not human uniqueness. No other significant effects emerged (all $p's > .13$). We also hypothesized that participants would have reported a lower self-humanization effect in relation with their level of self-objectification and to their intention to wear cosmetics. Results showed that the extent to which participants self-humanized did not correlate neither with the intention to wear cosmetics ($r = .06, p = .47$ and $r = -.03, p = .73$; along human nature and uniquely human dimensions respectively) nor with the extent to which they self-objectified ($r = -.01, p = .21$ and $r = .03, p = .7$; along human nature and uniquely human dimension respectively).

Valence. In a similar way, in addition to the correlations between self-perception and humanity ratings, we also calculated within-participant correlations between self-perception and valence ratings. Self-perceived desirability of traits was analyzed in a 3 (Condition:

romantic date vs. job interview vs. friends) one-way factorial ANOVA. No effects emerged (all $p's > .48$) from this analysis.

2.4.4 Discussion

Study 1 provides initial support for the hypothesis that makeup use is linked with an increased worry about one's own appearance and that it can affect females' self-reported competence when they find themselves in a context in which their competence will be put to the test.

A self-objectification index was calculated, combining the Surveillance and the Body Shame sub-scales and this index was then correlated with the intention to wear makeup and with the four dimensions of self-perception. Results indicated a positive correlation between the self-objectification index and the intention to wear cosmetics, indicating that the more participants indicated to be worried about their appearance, the more they reported the intention to wear cosmetics. At the same time, however, the self-objectification index was negatively correlated with all dimensions of self-perception: female participants who felt worried about their physical appearance, reported to feel less competent, less warm, less attractive and less refined. For the first time, these data show that changing one's facial features through the use of makeup is linked with people's tendency to self-objectify. These results contrast with views that makeup use would be motivated by a desire to emphasize one's personality. Instead, this finding seems to suggest that the use of cosmetics is the result of a heightened body monitoring and increased worries regarding one's physical appearance. More importantly, we regressed the experimental conditions and the intention to wear different types of cosmetics on participants' self-perceived competence. In line with the hypothesis, we found that female participants reported to feel less competent when wearing makeup, but only in the job interview condition.

Finally, in line with the literature (Loughnan et al., 2010; Haslam et al., 2005), we found that female participants showed a preferential attribution of the traits representing human nature compared to those that are uniquely human. Unlike our hypothesis, however, self-objectification showed to be unrelated with self-humanization. A possible explanation could be found in the fact that these female participants do not self-objectify in an absolute sense as their general mean at the lower part of the scale ($M = 3.62$, $SD = 1.85$) indicates. Maybe, true high self-objectifiers that can be found in a clinical sample of women with eating disorders (e.g., Calogero et al., 2005) tend indeed to self-dehumanize the more they self-objectify. An interesting question for future research could be to compare a clinical with a non-clinical sample and test this hypothesis.

Study 1 represents a first attempt to empirically show that increased makeup use in a context in which competence is required diminishes female participants self-perceived competence. This initial finding seems to suggest that makeup use could diminish participants' actual competence. Study 2 was designed to directly test this hypothesis. Therefore, female participants' actual competence was measured as a function of a makeup prime. We reasoned that if makeup has only negative effects on self-perception, why would so many women continue to wear it? We hypothesized that makeup gives an illusory sense of competence. On the one hand makeup use is a state in which women should feel better able to meet standards for appearance and so has positive effects on one's self-perception. These perceptions could also include competence, at least if females do not expect to be evaluated on the competence dimension like in Study 1. On the other hand, makeup is a state in which women focus on their own appearance (i.e., self-objectify). Studies on self-objectification reveal that when women focus on their own appearance they exhibit impaired cognitive performance. Study 2 aimed to test the discrepancy between self-perceived and actual competence as a function of a makeup prime. More specifically, we hypothesized that focusing on the self, wearing makeup increases

woman's self perception regarding attractiveness, competence and warmth, but at the same time undermines woman's performance in a cognitive task.

2.5 Study 2: Artistic Impression and Personal Preference Study

Study 2 was specifically designed to directly test the hypothesis that makeup use could diminish female participants' actual competence. From the perspective of objectification theory (Bartky, 1990; Frederickson and Roberts, 1997), the use of makeup may enhance woman's self-worth. Western societies encourage women to attribute great importance to their physical aspect and award those women who follow prescriptions about beauty. At the same time, however, the studies cited above (see for example, Quinn and colleagues, 2006) have demonstrated that a state of self-objectification can lead to a disruption in woman's attention and impair their normal cognitive functioning. Based on these findings, we hypothesized that focusing on one's face with makeup, as a self-objectifying experience may enhance woman's self-worth but it can reduce her available attentional resources and in turn decrease her performance in a cognitive task.

In order to test these hypotheses, in Study 2 female participants were asked to put makeup on their photographed and then printed faces using real cosmetics, or to paint the background around the photograph of their faces using a color set (in order to control for any effects of just looking at a picture of one's own face) or to paint a picture of a flower. Afterwards, their self-perceptions in terms of competence, attractiveness and warmth were measured. We hypothesized that female participants' self-perception should maintain unchanged or increase slightly in function of our manipulation. Unlike Study 1, no context was created in which participants knew that their competence would be put to the test and were therefore not expected to decrease their self-perception in terms of competence after they putted on makeup on their face. The cognitive task in the present study was the Stroop task (Stroop, 1935b). The Stroop color-naming task is an attentional task, in which participants are

50

presented with color words (e.g., green, blue, red, black) on a computer screen and are instructed to name the color of the ink of the word as quickly as possible, ignoring the content of the word. In order to complete the task they have 4 colored keys on the computer keyboard. The name of the color in which the words are printed can be congruent or incongruent with the word. The Stroop effect is the result of the interference between the attention that goes to reading the color word and that that is necessary to name the color of the ink. It is a well-know attentional phenomenon to the extent that it is also frequently used as an *index* of attention. McLoad (1992) has defined the Stroop task the “gold standard” of attentional measures. However, it is also used to assess other cognitive domains as for example working-memory. Engle (2002) and Kane and Engle (2003) have showed that individual differences in the capacity of the working-memory predicted performance on the Stroop task. Still, recent research has shown that a decrease in attentional resources leads to slower responses on the Stroop task (see for example, Quinn and colleagues, 2006). So, it seems to be a suited task for our purpose, that is, to show a disruption in a woman’s available attentional resources.

We expected a discrepancy between self-reported and actual competence as a function of the makeup prime: specifically, we expected that focusing on the self with makeup would maintain (or even enhance) women’s perceptions of self-competence, but undermine their performance in a cognitive task. Therefore, we predicted that women who focused on their faces with makeup would be slower to respond to the Stroop task, showing a general decrement in their performance, but preserve a positive self-perception of competence.

2.5.1 Method

Participants

Ninety-one female undergraduate students at the University of South Florida volunteered in the present experiment. Their age ranged from 18 to 30 years old ($M = 19.98$; $SD = 2.37$). Sixty-

four % were Caucasian, 14% Hispanic, 9% African Americans, 2% Asian and about 10% were of other (unspecified) or more than one ethnicity. They received two course credits for their participation. Two participants had to be discarded from further analyses because they did not paint the image that was provided to them.

As a result, eighty-nine participants were retained.

2.5.2 Procedure and measures

Trait Self-Objectification. As in Study 1 in order to test participants' level of trait self-objectification we used the Objectified Body Consciousness Scale (OBC, McKinley & Hyde, 1996). Cronbach's alphas indicated a good internal consistency for Surveillance, Shame, and Control Beliefs Scales ($\alpha = .81$, $\alpha = .81$, $\alpha = .70$, respectively). As in the previous study we calculated the index of trait self-objectification combining the Surveillance and Body Shame sub-scales: this index showed again a good internal reliability ($\alpha = .85$). In line with this choice, a principal component factorial analysis revealed that the variables of the Surveillance and Body Shame scales loaded together onto the same factor, explaining 22.76 % of total variance while the items of the Control scale alone loaded on a different factor explaining 11.98 % of the total variance.

Self-rated facial attractiveness. In order to control for any effects of participants' self-rated facial attractiveness, participants were provided with 17 body-related traits of which 5 were related to facial features (e.g., eyes, nose, lips, texture, overall facial appearance). Participants had to indicate the extent to which they were satisfied or dissatisfied with each of the physical characteristics listed using a 1 (*very dissatisfied*) to 5 (*very satisfied*) Likert type scale.

Both the OBC scale as well as the measure of self-rated facial attractiveness were presented before the makeup manipulation and introduced as an unrelated package of questionnaires to the primary study. This was done in order to control the effect of participants' physical concerns on their self-perception.

Makeup manipulation. Participants were tested individually. The cover story was that they were involved in a study aimed to assess artistic inclinations and for this reason randomly assigned to one of three conditions: apply makeup to a picture of their own face, paint the background around a picture of their own face or to paint a printed picture of a flower. Both the latter conditions were inserted as control conditions. The first allowed to compare the makeup condition with a condition in which participants were still confronted with their face, but without makeup, while the paint-a-flower-condition was inserted as a baseline.

In order to perform the task, after receiving their consent form, a female experimenter took a picture of the participants' face or for the third condition she printed the picture of a drawn flower. After, they were seated in a cubicle and provided with several colors and tools. They were told to feel free to use as many colors and tools as they wanted. They had 5 minutes to perform the task. Participants received the following instructions:

"We are interested in having you apply makeup to your face (or paint the world around you/paint a flower). Because we cannot have you actually apply makeup to your face (or paint the world around you/paint a flower), we are doing the next best thing. We will have you apply makeup to the photo we printed out of your face (or paint the background around the photo we printed out of your face/paint a picture of a flower that we printed out)".

After 5 minutes the female experimenter knocked on the door and participants were asked to seat in another cubicle and complete a questionnaire keeping the image that they had just colored with them while completing the further material.

Dependent variables

Self-perception. Participants rated the degree to which 12 attributes best described them in this moment. Such attributes were related to competence (capable, skillful, intelligent, competent), attractiveness (attractive, beautiful, sexy, desirable), and warmth (warm, sincere,

friendly, deep). Participants were provided with a 1 (*very slightly or not at all*) to 5 (*extremely*) Likert type scale to respond.

Mood. The Positive and Negative Affect Schedule (PANAS; Watson, Clark, & Tellegen, 1988), a 20-item mood measure, followed the makeup manipulation after self-perceptions. Participants were required to indicate the extent to which they felt in that moment, using a 1 (*very slightly or not at all*) to 5 (*extremely*) Likert type scale. The PANAS was included to confirm that the effects of our manipulation were specific to the exposure to one's own face with makeup and were not caused by mood changes.

Performance on an attentional task. In order to test if the exposure to one's own face with makeup (i.e., a self-objectifying experience) would lead to a disruption of attention we used a color naming Stroop task. Participants were presented with words on a computer screen and were instructed to indicate the color of the ink of the word as quickly as possible, ignoring the content of the word. In order to complete the task they have 4 colored keys (e.g., *blue, black, green, red*) on the computer keyboard. After a training block in which the content of the colored words that were presented on the computer screen did not indicate a color (e.g., *'week', 'chair', 'topic'* and *'book'*), one critical block was created in which the name of the color in which the words were printed could be congruent (e.g., the word *'blue'* written with blue ink) or incongruent (e.g., the word *'green'* written with red ink) with the content of the word. Once the participant pressed the corresponding key on the computer keyboard there was a 200 ms interstimulus interval and then the next word appeared.

Likeability of the picture. In order to control for any differences in how much people enjoyed the final result of what they produced in the manipulation task, participants were required to report the extent to which they liked the picture that they just painted, using a 1 (*not at all*) to 7 (*quite a bit*) Likert type scale.

Self-reported use of makeup. Afterwards, they were presented with 4 questions about their effective use of makeup (e.g., *Do you wear makeup on a typical day? Are you wearing makeup*

right now? Do you wear makeup for a typical night out? Do you reserve the use of makeup for special occasions?). For each alternative participants were required to indicate whether they would wear makeup (yes) or not (no).

Finally, they indicated their age and ethnicity and then they were fully debriefed and thanked for their participation.

2.5.3 Results

Mood. In order to rule out the possibility that the effects of our manipulation were caused by participants' mood changes we analyzed the index of positive mood with a 3 (Condition: makeup vs. background vs. flower) factorial ANOVA. As expected, the main effect of condition was not significant $F(2,86)=1,84, p=.17, \eta_p^2=.04$.

Trait self-objectification and self-reported facial attractiveness. In order to evaluate the effect of participants' level of self-objectification on their self-perceptions, on their reported use of makeup, and on their self-reported facial attractiveness, we inserted all these variables in a correlation matrix. The index regarding the reported use of makeup was calculated summing the yes responses on each question in which participants could indicate to use makeup in different occasions. This index ranged from 0 to 4 ($M=2.7; SD=1.34$). The index of self-reported facial attractiveness was obtained calculating the mean of the amount participants reported to feel satisfied with the listed facial features. Then, the index of self-objectification was correlated with the index of reported use of makeup and participants' reported facial attractiveness. Results showed that the index of self-objectification had a negative impact on participants' self-reported facial attractiveness ($r= -.34, p= .001$), but was positively correlated with participants' reported use of makeup ($r= .39, p< .001$). These findings replicate the results obtained in Study 1 and indicate that the more participants reported to be worried about their physical appearance the more they reported the intention to wear

cosmetics in different occasions. At the same time, these same participants reported a lesser degree of satisfaction about their physical facial features.

Participants' index of self-reported facial attractiveness was correlated with self-perceptions and with the index of reported use of makeup. As shown in *Table 2.3*, participants' level of self-reported facial attractiveness significantly correlated with the index of reported makeup use ($r = -.27, p = .01$). This negative correlation indicated that the fewer participants reported to like their facial features, the more they indicated to use cosmetics in different occasions. Moreover, the index of self-reported facial attractiveness significantly and positively correlated with perceived competence ($r = .35, p = .001$) and attractiveness ($r = .52, p < .001$), but did not correlate with perceived warmth ($p = .11$).

	Mean	Self-objectification	Facial attractiveness	Reported use of makeup
Competent	3.94 (.69)	-.11	.35**	.01
Attractive	3.06 (.79)	-.18	.53**	-.07
Warmth	3.9 (.71)	-.02	.19	-.04
Self-objectification	3.38 (.88)	1.00	-.34**	.39**
Facial attractiveness	4.17 (.55)	-.34**	1.00	-.28**
Reported use of makeup	2.70 (1.34)	.39**	-.28**	1.00

* $p < .05$, ** $p < .01$

Table 2.3: Means and correlations of participants' self-perception, self-reported facial attractiveness, self-reported use of makeup and participants' level of self-objectification.

Self-perception. We hypothesized that focusing on one's face wearing makeup, compared to a condition in which the focus is on the background of one's face with no makeup, may increase woman's self-perception regarding competence, attractiveness and warmth. In order to test this hypothesis three analyses of covariance (ANCOVA) were conducted, one for each dimension of self-perception. In order to control for any effect of the extent to which participants' enjoyed the experience, the extent to which participants' reported to like the picture that they had just painted, was inserted as a covariate¹. The likeability of the picture was significantly related to participants' self-perception regarding competence, $F(1, 84) = 9.32, p = .003, \eta_p^2 = .10$, indicating that the more participants liked their modified picture or their painted flower, the more they reported to feel competent (see *Figure 2.1*). More importantly and in line with the hypothesis, there was a main effect of experimental condition on participants' perceived competence $F(2, 84) = 6.88, p = .002, \eta_p^2 = .14$, which indicated that a focus on participants' faces with makeup led them to feel more competent ($M = 4.14; SD = .57$) compared to a focus on participants' background of their face ($M = 3.62; SD = .73$), but no difference was found on perceived competence when the focus was on a flower ($M = 4; SD = .67$).

A similar analysis of covariance (ANCOVA) with participants' self-perceived attractiveness as a dependent variable was run. The index of likeability of the picture was significantly related to participants' self-perceived attractiveness $F(1, 84) = 8.07, p = .006, \eta_p^2 = .09$. However, this analysis revealed that the expected main effect of condition was not significant $F(2, 84) = 1.22, p > .05$, indicating that regardless of condition, participants reported to perceive themselves moderately attractive ($M = 3.2, M = 2.9$ and $M = 3$ for the makeup, background and flower condition respectively). Finally, a third analysis of covariance (ANCOVA) was run

¹The results without the covariate are similar and would lead to the same conclusions.

inserting self-perceived warmth as a dependent variable. This analysis showed that the index of likeability of the picture was marginally related with this dimension of self-perception, $F(1, 84) = 3.16, p = .08, \eta_p^2 = .04$ and after controlling for the effect of likeability of the picture, the expected main effect of condition was only marginally significant $F(2, 84) = 2.81, p = .07, \eta_p^2 = .06$. Nevertheless, contrast analyses showed that participants in the makeup condition, reported higher levels of self-reported warmth ($M = 4.02, SD = .64$) compared to a condition in which the focus was on the background of their face ($M = 3.67, SD = .70$), but no difference was found when the focus was on a flower ($M = 4.02; SD = .77$).

More importantly, we hypothesized that a focus on one's face with make despite the general enhancement on self-perception may undermine woman's performance in a cognitive task. To test this hypothesis, first of all a Stroop index was calculated. We considered only the reaction times of correct responses that ranged from 300 ms to 3000 ms. According to these filters no responses had to be excluded. In order to normalize our distribution reaction times were log-transformed and then the mean was taken for congruent, incongruent, and neutral trials separately. These three indexes were then analyzed using a 3 (Experimental condition: face vs. background vs. flower) X 3 (Type of trial: incongruent vs. congruent vs. neutral) repeated measure analysis of variance of which only the latter variable was analyzed within-participants. A main effect of condition emerged, $F(2, 86) = 3.6, p < .05, \eta_p^2 = .08$ (see *Figure 2.2*), indicating that the performance of participants who had to focus on their faces with makeup did not differ from those who had to focus on the background of their faces ($M = 915.02, M = 943.87$ for the makeup and background condition respectively). However, these conditions significantly differed from the control condition: participants who had to focus on a flower showed to respond significantly faster than participants in the other conditions ($M = 790.22$).

Also a main effect of Type of trial emerged, $F(2,86)=75.32, p<.001, \eta_p^2 =.47$, according to which participants were slower to respond to incongruent ($M = 1007$) compared to congruent

($M = 819.02$) and neutral trials ($M = 823.1$). Even though this effect replicates the original Stroop effect, this main effect was not qualified by the expected interaction between Condition and Type of trial ($p > .05$).

Figure 2.1: Mean of self-perceived competence in function of condition

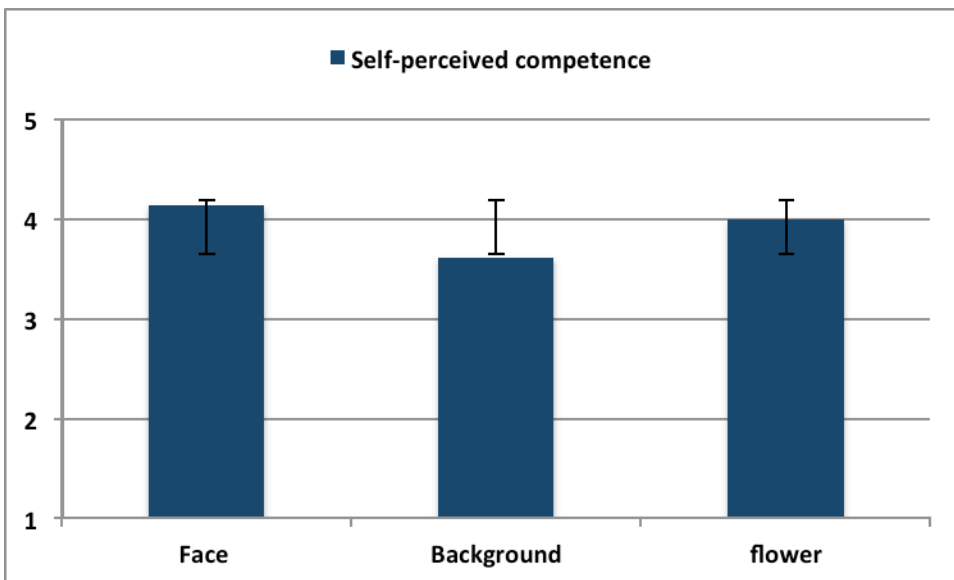
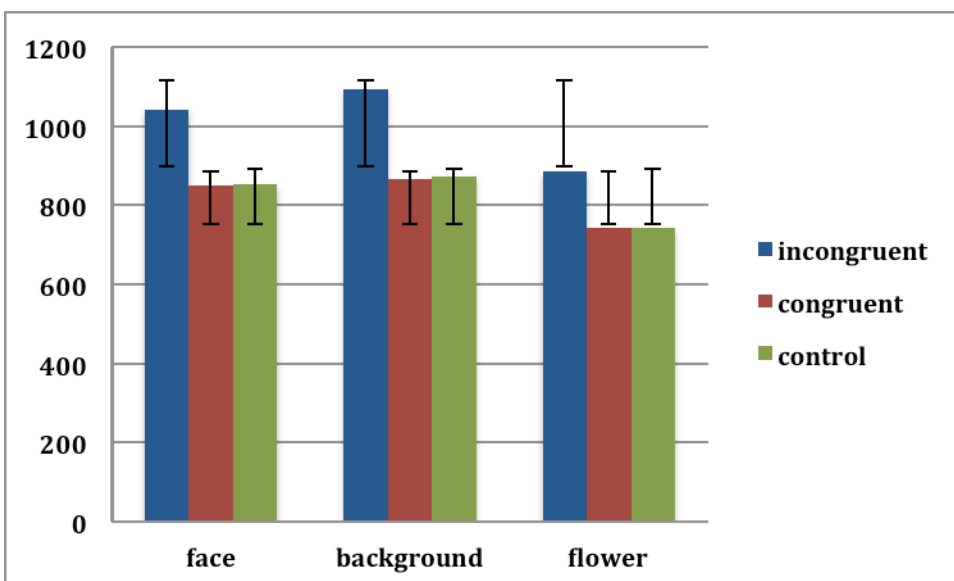


Figure 2.2: Mean log-transformed RTs for incongruent, congruent and control trial in function of experimental conditions.



2.5.4 Discussion

Makeup is often framed and publicized as a way for women to express their personality. The results of Study 2 once again contrast with this view showing that makeup use is linked with women's concern about their own facial appearance.

An index of participants' facial attractiveness was calculated and then correlated with their self-reported habits regarding the use of makeup. These analyses revealed that participants' facial attractiveness was negatively correlated with their use of makeup, indicating that the more participants revealed to be satisfied with their facial appearance, the less they reported to use makeup. At the same time, facial attractiveness showed to have positive effects on self-perception as was shown by the positive correlation between self-perceived competence and attractiveness.

We hypothesized that a focus on the self, wearing makeup compared to a condition in which participants were simply exposed to their own face may lead to an enhanced self-perception along all considered dimensions. Results partially confirmed our hypothesis: focusing on one's face with makeup compared to focusing on one's own face with a decorated background, increased perception of competence and warmth but not attractiveness. It is important to note, however, that compared to the flower condition, the use of makeup did not increase participants' self-perception.

More importantly, our main hypothesis was that the application of makeup on one's own face would maintain or even enhance a woman's self-perception of competence, at the same time, undermining her performance in a cognitive task. Based on participants' performance on the Stroop task, our findings do not allow concluding that makeup has an impaired effect on woman's attentional resources. Participants showed a general slowdown on the incongruent trials that was not qualified by the experimental conditions. Still, a main effect of condition emerged indicating that participants who were confronted with their own face (with or without makeup) generally responded more slowly compared to those participants who were

assigned to the flower condition. We will discuss the possible implications of this finding further.

2.6 General Discussion Study 1 and Study 2

Within the framework of objectification theory, self-objectification has always been considered a body-based experience, according to which a person, typically a woman, manifests a persistent or habitual surveillance of the body's physical appearance (Frederickson & Roberts, 1997).

To our knowledge, the present research proposed a different source of self-objectification for the first time, that is, the face instead of the body. The simplest and most widely used way in which women can change their facial appearance is through the application of makeup. Therefore, we verified the extent to which makeup use is related with self-objectification showing the consequences of this daily habit on women's self-perception and actual competence.

In two studies we have shown that makeup increases a woman's worry about her physical appearance. Far from being a habit through which women can freely and genuinely express their personality, changing one's facial features through the use of makeup showed to be linked with women's tendency to self-objectify. Both results of Study 1 and 2 provided initial support for the hypothesis that cosmetic use is a result of a self-objectifying experience instead of a way to freely express one's own personality. More importantly, Study 1 represents a first empirical attempt to demonstrate that increased makeup use in a context in which competence is expected to be required such as a job interview, diminishes female participants self-perceived competence. Only in the job interview condition, participants who reported the intention to wear makeup indicated to feel less competent.

In Study 2, in an attempt to study the role of makeup use in a more realistic setting, participants were asked to put makeup on their photographed and then printed face using a real makeup set.

In addition, an index of participants' self-reported facial attractiveness was calculated and its' effect on the effective use of makeup (i.e., participants' habitual use of makeup) and their self-perception was analyzed. Results showed that participants' self-reported facial attractiveness was negatively correlated with the effective use of makeup, but positively correlated with self-perceived competence and attractiveness. These findings corroborate those of Study 1 indicating that the use of makeup is a result of worries about one's physical appearance, specifically about one's facial appearance since it increases to the extent in which one's self-reported facial attractiveness diminishes.

Unlike Study 1, results of Study 2 showed that the effective use of makeup did not affect participants' self-perceptions. One possible reason that could explain these ostensibly contrasting findings could be due to the different role of the normative context in which the influence of makeup on self-perceptions was examined. Only in Study 1, the presence of normative pressures to appear competent were made salient and mostly in that context the reported increased intention to wear makeup resulted in a negative self-perception regarding one's self-perceived competence. On the contrary, in Study 2 female participants were unaware that their competence was going to be put to the test. Moreover, the Stroop task does not recall a setting in which a particular competence is measured. In a context in which the normative pressures to look competent are not highlighted, participants' self-perception was not undermined by the use of makeup. In line with previous research (Richetin et al., 2005), it seems that the mixed effects of cosmetics use on one's self-perception depend on the normative context, that reminds female participants that their competence is put to the test or not.

Furthermore, we hypothesized that a focus on one's face with makeup should impair women's performance on a cognitive task. The findings from the Stroop task did not allow us to confirm the expected interference effect when the attention was allocated on one's face with makeup compared to the other conditions. One possibility is that we are confronted with a sampling bias: our participants were simply faster in the flower condition to complete the task.

Another possibility could be that the presence of one's own face grabbed participants' attention. The condition main effect indicated that the general slowdown of participants was observed when they were confronted with their face (with or without makeup). It could be indeed that the presence of one's own face simply distracted participants. Previous research has shown that human faces are powerful distracting stimuli, and therefore, difficult to ignore (Lavie et al., 2003) and that it is particularly true for one's own face (Devue et al., 2009). So, it is possible that participants' own faces grabbed their attention and interfered with their performance.

Results of Study 2 showed that self-perceived competence was higher in the makeup condition than in the face with background condition, as expected, but remained equally high in the flower, control condition. Speculatively, it might be that the process of self-awareness plays a different role in these different conditions. Objective self-awareness is a state of heightened attention on the self that is induced with a confrontation with one's own image (e.g., in a mirror) or one's own voice (Duval & Wicklund, 1972). In two conditions participants were confronted with their own image and therefore could become more self-aware. Given that makeup can function as a sort of mask (see Robinson et al., 2008), one could argue that participants in the face with background condition more likely became self-aware as they had no way they could hide from the confrontation with their true face. According to objective self-awareness theory (Duval and Wicklund, 1972) people who are more self-aware become more accurate in judging the self and one's competences (Liebling and Shaver, 1973; Geller and Shaver, 1976). As a result, heightened self-awareness could explain the dip in reported

self-competence in the face with background condition. Future research could measure both processes of self-awareness and self-objectification and disentangle the specific role they play in the use of makeup and in women's self-perceived competence.

2.6.1 Limits and future research

All in all, this research has shown that one's own face, as well as the body, can be a source of self-objectification and that a daily habit as makeup use is linked with women's tendency to self-objectify. We took an intrapersonal perspective, showing how women's self-perception can change as a consequence of makeup use that is proposed as a self-objectifying experience. However, given the correlational nature of our analyses, we can not draw any clear conclusions about causality between makeup use and the tendency to self-objectify. Still, we focused on a specific domain of social functioning, that is competence, but it is possible that as a self-objectifying practice makeup could also have physical and mental costs, such as reduced flow experiences and depression. Further research should more directly address these questions measuring self-objectification after the makeup manipulation showing that it can also be manipulated experimentally and verifying its consequences in other areas besides competence.

CHAPTER 3: Moderators of the de-humanization of sexually objectified female targets

3.1 Women objectify and de-humanize other women

The present chapter aimed to get a better understanding of why women might dehumanize their sexually objectified counterparts. Objectification theory (Frederickson & Roberts, 1997) started from the premise that male heterosexuality lies at the basis of their tendency to sexually objectify women. Recently research extended this initial premise showing that women objectify other women (Strelan & Hargreaves, 2005) and, more importantly, attribute objectified female targets less mental states (Cikara et al., in press; Loughnan et al., 2010) and lesser degrees of humanness (Heflick and Goldenberg, 2009; Heflick, Goldenberg, Cooper and Puvia, in press; Vaes, Paladino, Puvia, 2010) much like men do. This somewhat surprising finding has been replicated independently by different researchers, but no clear explanations exist for why this might happen. Therefore, the present chapter reports two studies that aim to elucidate the underlying reasons why women might de-humanize sexually objectified female targets. While the first study will focus on target characteristics changing the social meaning of sexually objectified female targets, the second study will analyze perceiver characteristics verifying the impact of different personality variables.

More specifically, Study 1 starts from the premise that women likely perceive sexually objectified females as belonging to a separate and disliked female subcategory that they want to avoid, increasing their tendency to dehumanize them (Vaes et al., 2010). That sexually objectified women are often perceived negatively was recently shown by Gurung and Chrouser (2007). They showed that provocatively looking female targets were indeed seen in a negative light by women. As a consequence, women could perceive these female depictions

as threatening for the entire gender category and motivate them to distinguish themselves from sexually objectified depictions of women categorizing them in a separate subcategory. Based on this reasoning, we hypothesized that changing the social meaning of this subcategory could also change the way they perceive them in human terms. Concretely a context was created in which objectified targets were portrayed as promoters or as victims of an objectifying culture. In the latter compared to the former case, we hypothesized that female participants would be more likely to attribute the same sexually objectified female targets a higher degree of humanness.

In a second study, we analyzed the de-humanization of sexually objectified female targets from an individual point of view. Focusing on inter-individual differences that have shown to be relevant in research on self- and other- objectification, we tried to identify the personality variables that would increase women's tendency to de-humanize their sexually objectified counterparts. The key variable we looked at was self-objectification. To say that women self-objectify, means that they put their appearance before their health or the healthy functioning of their body. These women should be more sensible to their own physical appearance and more prone to generalize this concern to women in general (Strelan & Hargreaves, 2005). Taking the perspective of a high self-objectifier, we proposed two different underlying processes that could drive female reactions to sexually objectified targets: on the one hand, women who self-objectify could perceive objectified depictions of women as models to live up to. Very often sexually objectified targets represent young, beautiful and very attractive women. As a result, women who value their physical attractiveness above all could wish to look like them and therefore identify with them. In order to verify this hypothesis a measure of identification with the presented female targets was added. We predicted that to the extent that self-objectifiers identify with sexually objectified female targets, these female participants should tend to humanize these targets more readily. On the other hand, it is possible that women who self-objectify perceive objectified female targets as competitors.

Again, self-objectifiers highly value physical attractiveness and likely compare others with themselves on this dimension. One domain in which this competition could play is female's wish to look attractive for men. As we stated above, sexually objectified targets represent young women that are judged beautiful and very attractive also by men. Therefore, it could be that especially those women who are motivated to attract males' attention through their physical attractiveness, self-objectify and at the same time dehumanize sexually objectified female targets because they see them as likely competitors. To test this hypothesis, a measure of women's heterosexual motivation was added. We hypothesized that women who had a higher motivation to look attractive for the other sex, report higher levels of self-objectification, and are more prone to dehumanize sexually objectified women because they see them as competitors.

3.2. Study 3: Promoters versus Victims of objectification: When women dehumanize sexually objectified females

For women sexually objectified female targets represent members of the same gender group but at the same time potentially pose a problem. Images of women in sexually provocative poses are ever more often used in advertisement to sell a wide variety of consumer products. Regardless of the content of the ads, the most popular image of women is one of a sex object (Stankiewicz & Rosselli, 2008). Sengupta and Dahl (2008) have shown that women reacted negatively to the gratuitous use of sexual images in advertisement judging a sex-based ad as more offensive and less likable. More importantly, these reactions of disapproval have shown to include the attribution of less competence (Heflick & Goldenberg, 2009), warmth (Heflick, Goldenberg, Cooper & Puvia, in press), moral status (Loughanan et al., 2010) and social agency (Cikara et al., in press) to objectified female targets. As a consequence, one possibility

is that women react to these threatening depictions distancing themselves from sexually objectified depictions of women and in turn dehumanize them.

First evidence that has demonstrated this effect comes from Vaes et al. (2010; see Study 2) who have shown that the sharper female participants differentiated between objectified and personalized female targets and the less they reported to feel close to sexually objectified depictions of female targets, the more they tended to dehumanize them. These results hint to the possibility that sexually objectified women were seen as a separate female subcategory from which women want to distance themselves. If this were true, changing the social meaning of this subcategory making it more or less easy to include it in the overall gender category could change the way women perceive sexually objectified female targets in human terms. Yzerbyt and colleagues (2003), for example, have shown the effect of a switch in the categorization context on the reactions toward a victim of harmful behavior. Specifically, they showed that when people's common group membership with the victim was made salient compared to a condition in which the distinct membership of themselves and the victims was stressed, participants reported feeling more angry and more willingness to react against the perpetrator of the offensive behavior. Following this reasoning, one possible reason why women do not like objectified female targets could be that they perceive them as promoters of a female image in which (sexy) looks are the most important female characteristic diminishing the importance of competence or intellectual abilities. Alternatively, women could perceive sexually objectified female targets as victims of an objectifying culture. After all, it is not them who choose to be depicted in this way. They conform to the cultural norm that objectifies the female body. They are, therefore, victims of this existing culture as much as any other woman potentially is. This latter perception will likely make it easier for women to move closer to sexually objectified female targets and see them as equals. Therefore, we manipulated the way female targets were perceived stressing their role as promoters compared to victims of sexual objectification. Specifically, we hypothesized that when female

participants are reminded that women promote a culture that depicts women as sex objects; female participants are more likely to perceive sexually objectified female targets as belonging to a subgroup they want to avoid, increasing their tendency to dehumanize them. Vice versa, we hypothesized that when female participants are reminded that all women are potential victims of a sexually objectified culture, they are more likely to perceive sexually objectified female targets as equally victimized, attributing them a higher degree of humanness.

In order to test this hypothesis, female participants were randomly assigned to read one of three articles before they performed a Single Category-Implicit Association Test (SC-IAT, Karpinsky & Steinmann, 2006) that measured their human associations with objectified female pictures. Two articles were used that primed the idea that women are promoters or victims of a culture that objectifies them. A third article that addressed an unrelated topic was used as a control prime. In the promoter condition, the article reported the experience of a woman who had decided to make her body “a product to sell in show business” emphasizing the benefits of her choice. In the victim condition, the article reported the experience of a woman who despite her high level of education was mostly appreciated because of her good looks. We hypothesized that female participants in the promoter compared to the victim condition would make less human associations with objectified female targets.

3.2.1 Method

Participants

Sixty-four female participants volunteered in the present experiment. Their age ranged from 20 to 32 years old ($M = 22.39$; $SD = 2.22$). All of them were students at a large Italian university. Six participants were discarded from the analysis: four because they were non-

native speakers and two because they were not heterosexual. As a result, we retained a total of 58 female participants.

3.2.2 Procedure and measures

Articles. Participants were randomly assigned to read one of three articles. Two of them were very similar and introduced the problem of sexual objectification in the media. They both emphasized the potential negative consequences of the overwhelming presence of beautiful sexy women on Italian TV programs. At the end of the brief article participants were presented with a testimony of a woman that either promoted female objectification or underlined the fact that she was a victim of sexual objectification. In the promoter condition, the article titled: “ *My bottom is worth more than a degree*”, and reported a quote by a young woman who achieved success without great effort, simply using her body. Literally her testimony read: “*After 4 years at Bocconi University (a prestigious Italian University of economy) I was manager in a big company. Today I am the product, a product that I sell in show business*”. Conversely, the second article depicted a woman as a victim of a sexually objectifying culture. It was titled: “*If my bottom is worth more than a degree*” and reported a woman’s experience who despite her high level of education, was more often evaluated and appreciated in virtue of her physical appearance. “ *I’m 39 years old, single, with two university degrees, two masters, a Ph.D. and...a very nice bottom. At first impact an insistent gaze always goes to this last quality*”. In sum, both articles introduced the idea that we live in a culture that potentially objectifies the female body and both presented a testimony of a highly educated woman. The two experimental articles only differed, in that, one testimony emphasized the idea that women can promote and use this objectifying culture to make it in live while the other testimony gave an example of a woman that was a victim of objectification.

Finally, the third article that constituted the control condition talked about alternative medicine and the benefits of the use of herbs.

Agreement. After reading the article participants were required to indicate the extent to which they agreed with its content using a 7-point Likert scale (1 = *not at all agree*; 7 = *totally agree*).

SC-IAT. Participants were presented with a Single Category-Implicit Association Test (SC-IAT, Karpinsky & Steinmann, 2006) in which only objectified female pictures had to be categorized together with human and animal attributes. The female pictures were taken from advertisements that appeared in the main Italian female magazines (e.g. Marie Claire, Vanity Fair, Donna Moderna). A total of 18 (9 male and 9 female) participants judged the set of female pictures on the extent to which they were objectified using a 7-point Likert scale (1= *not at all objectified*, 7= *extremely objectified*). Looking at the pretest judgments we selected five pictures that only portrayed the image of a single woman significantly judged as objectified ($M = 5.1$) compared to the mid-point of the scale, $t(17) = 4.37, p < .001$. In line with the definition of objectification, the selected objectified female images had a clear body focus emphasizing those body parts that have a sexual function. We also selected 10 words, 5 human related (culture, foot, nose, values, and tradition) and 5 related to the animal rein (nature, paw, snout, instinct, and hibernation). These attributes were selected on the basis of a pretest and did not differ with respect to their valence ($t < 1$), while the human words were significantly seen as more uniquely human ($M = 7.94$) than the animal ones ($M = 2.43$) on a 9-point Likert scale, $t(24) = 21.56, p < .001$ (for a similar procedure see also, Vaes et al., 2010). The SC-IAT had the typical structure that is suggested by Karpinski and Steinmann (2006). Following a training block in which participants had to categorize words as related to animals or humans using a left and a right hand key on a computer keyboard, two critical blocks were created one that looked at the human associations with objectified pictures and one that looked at the animal associations with the same targets. The order in which the two blocks appeared was controlled and counterbalanced between participants.

Judging target pictures. Participants then judged the 5 female target pictures that were used in the SC-IAT on 8 dimensions. For each picture they were asked to indicate the extent to which they found them beautiful, competent, refined, sophisticated, sexy, friendly, superficial and vulgar, using a 7-point Likert scale (1 = *not at all*; 7 = *extremely*).

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

3.2.3 Results

Humanity index. Data were treated using the *D*-score algorithm for IAT data proposed by Greenwald, Nosek and Banaji (2003). As a result, a SC-IAT *D*-score was calculated for the objectified female pictures. Higher numbers indicated an increased preference to associate human concepts to objectified female targets. This index was analyzed using a 2 (Order: animal/female association first vs. human/female association first) X 3 (Condition: victim vs. promoter vs. control) between-participants ANOVA. This analysis resulted in the expected condition main effect, $F(2, 52) = 3.20, p = .05, \mu_p^2 = .109$ showing that female participants significantly humanized the female targets only in the victim condition (see *Table 3*). Moreover, the index significantly differed from zero only in the victim condition ($M = .25, t(17) = 4.66, p < .001$) indicating that female participants significantly humanized sexually objectified targets, while in the other conditions they did not (all p 's $> .18$; $M = .06$ and $M = .01$ for promoters and control conditions respectively).

Table 3.1: Mean SC-IAT score D-score for objectified female targets, competence judgments, and extent of agreement in function of conditions.

		Victim condition	Promoter condition	Control condition
Human associations	<i>M</i>	0.25 ^a	0.06 ^b	0.01 ^b
	<i>SD</i>	0.23	0.37	0.27
	<i>N</i>	18	22	18
Competence judgments	<i>M</i>	3.50 ^a	2.58 ^b	2.92 ^{ab}
	<i>SD</i>	1.02	1.06	1.01
	<i>N</i>	18	22	18
Agreement	<i>M</i>	5.78 ^a	3.45 ^b	5.17 ^a
	<i>SD</i>	1.00	2.09	0.92
	<i>N</i>	18	22	18

Note. Means with a different superscript between conditions differ significantly $p < .05$

Agreement. Participants also had to indicate their level of agreement with the articles that were written. Given that this measure can figure as a proxy for participants' attitude towards sexually objectified targets, it is interesting to see how this judgment changed in function of the experimental condition. A significant condition main effect emerged from this analysis, $F(2, 55) = 13.17, p < .001, \mu_p^2 = .324$. Looking at Table 1, one can see that participants did not agree with the content of the article in which the objectification of women was promoted.

Explicit competence judgments. Of all dimensions on which the sexually objectified female targets needed to be judged, only the competence judgments showed to differ in function of

the experimental condition. $F(2, 55) = 3.95, p = .03, \mu_p^2 = .126$. Contrast analysis showed that female participants in the victim condition judged the sexually objectified female targets as significantly more competent compared to participants in the promoter condition; the competence judgments in the control condition falling in between (see *Table 3.1*).

No other significant effects emerged on any of the other measures (all p 's > .18).

3.2.4 Discussion

The idea was tested that women see sexually objectified females as promoters of an objectifying culture. Given that all women are potentially affected by the negative consequences of such a culture (Fredrickson & Roberts, 1997), most women distance themselves of such sexualized depictions of their gender category resulting in the dehumanization of these female targets. Instead, when the idea is emphasized that all women are potential victims of an objectifying culture that reduces women and their worth to their physical appearance, sexually objectified female targets can be included in the overall gender category as they are victims much like all women. The present research supported this hypothesis showing that female participants significantly humanized the sexually objectified female targets only in the victim condition. In the promotion condition, instead, they did not humanize the same targets much like in the control condition. This latter finding shows indeed that women normally see sexually objectified female targets as promoters of an objectifying culture they do not agree with. Prove of such a negative evaluation was given by the fact that our female participants did agree less with the content of the promoter article compared with that of the other two conditions. Interestingly, female participants judged the sexually objectified female targets in the promoter condition as significantly less competent compared to participants in the victim condition. This result shows that our female participants did not want to make the same mistake as they accuse an objectifying culture of, that is, judge a female target solely on her looks and not on the basis of her abilities.

3.3 Study 4: *The competition is feminine*

Objectification theory (Bartky, 1990; Frederickson & Roberts, 1997) posits that male heterosexuality lies at the basis of female objectification. Male's insistent gaze on their bodies is considered a primary source of objectification for most women. Recent research, however, has shown that even women objectify other women (Strelan & Hardgraves, 2005) and that when confronted with sexually objectified female targets, women tend to deny them full humanness (Vaes, et al., 2010). But why should women objectify and even de-humanize other women? Focusing on inter-individual differences, the present study aimed to address this question identifying what kind of women will be most prone to de-humanize their sexually objectified counterparts.

Several studies have highlighted the importance of target features in moderating the extent to which female participants reacted to sexually objectified depictions of women: Gurung and Chrouser (2007), for example, have demonstrated that changes in the outfit of famous female targets that made them more sexy resulted in a more negative evaluation of female participants. Even if we concur that target features are important in determining women's reactions towards objectified female targets (as the results of the former study indicate), we agree with Trampe and colleagues (2007) who have demonstrated that perceiver characteristics jointly work with target features to determine such reactions. For this reason, in the present study female participants' implicit associations of objectified and personalized female targets with human and animal related words were measured. The expected difference in associating human related words with personalized compared to objectified female targets was hypothesized to be moderated by different personality traits.

We have taken a large amount of personality variables into consideration focusing on those variables that have shown to be relevant in the context of self and other objectification. First of all, we looked at the extent to which female participants' reported to know and endorse the prevailing beauty image. Among others, Lavine and colleagues (1999) have studied the consequences of the exposure to TV ads that depicted women as sex objects and showed that it increases women's dissatisfaction with their bodies. Not all women are equally susceptible to these images especially on the long run. Therefore, a scale has been developed that measures the extent to which women are aware and internalize socio-cultural prescriptions regarding beauty. For this reason, a measure of internalization of the sociocultural attitudes toward appearance was inserted at the beginning of the experiment (Internalization Scale of The Sociocultural Attitude Toward Appearance Scale, SATAQ; Heinberg et al., 1994). In line with previous research (e.g., Calogero et al., 2005), we expected that those women who have internalized such prevailing messages to be prone to put great importance in their physical appearance, or self-objectify as we assessed through a measure of self-objectification (Self-Objectification Questionnaire, SOQ, Frederikson et al., 1998).

To say that women self-objectify means that they see physical attractiveness as a more important characteristic to judge the self compared to other competence or health related body characteristics. Putting physical attractiveness in the forefront it becomes likely that high self-objectifiers consider sexually objectified female target as a standard to live up to. Very often sexually objectified targets represent young women judged as beautiful and very attractive. For this reason, we reasoned that women could see such targets either as a model to resemble or as competitors in their strives to reach a beauty ideal or to attract male attention. Indirect evidence for the latter possibility stems from Strelan and colleagues (2003) who have demonstrated that there is a link between self-objectification and women's reasons for exercise. Women high on self-objectification exercise more for appearance-related reasons (e.g., attractiveness) and less for functional reasons (e.g., health). In a similar vein, Strelan and

Hargreaves (2005) showed that it were especially those women who self-objectify that also objectified other women. Self-objectifiers are more sensitive to their own appearance and generalize this concern to women in general. From this perspective, they become judges of the physical appearance of other women, likely making more comparisons with their own looks seeing sexually objectified female targets as competitors.

Alternatively, women who self-objectify and internalize the cultural beauty standards could also be seen as identifying with sexy female models. Their wish is to look like them and, therefore, they identify with them. In sum, women who self-objectify can either perceive sexually objectified female targets as competitors or as models to identify with. To disentangle these two possibilities two measures were added to the experiment. One measured women's motivation to look attractive for the other sex or their heterosexual motivation. We reasoned that it should be especially women who had a higher motivation to look attractive for the other sex to put also great importance on their physical appearance (i.e., self-objectify) and so were prone to consider sexy women as competitors. This feeling of competition we hypothesized could be a proxy for the dehumanization of sexy women. Specifically, our hypothesis proposed a mediation model in which women's motivation to look attractive for the other sex predicts the dehumanization of sexually objectified targets, and this relation is mediated by their level of self-objectification.

In addition, also a measure of identification with the presented female targets was added. Here, we predicted that to the extent that self-objectifiers identify with sexually objectified female targets, these female participants should tend to humanize these targets. Indeed, former research (Vaes et al., 2010) has shown that the more women identify with sexually objectified depictions of their gender category, the more they will humanize them. This hypothesis would be confirmed if female participants' identification with sexually objectified targets positively predicts the humanization of sexually objectified targets and this relation is mediated by self-objectification.

Finally, also participants' appearance esteem was measured. Appearance esteem was the central personality variable in the work of Trampe et al. (2007) and showed that women with low appearance esteem were mostly influenced when they were confronted with good-looking models. In a similar vein, Breines, Crocker, and Garcia (2008) showed that women with high appearance esteem showed a boost in well-being when they self-objectified, making it unlikely for them to be motivated to change their position or react against good-looking models. While Trampe and colleagues and Breines et al. focused on female participants self-evaluation, the present experiment focuses on the judgment of these sexy models. We hypothesized that participants' level of appearance esteem could moderate the proposed relations between self-objectification, internalization of the cultural beauty ideals and dehumanization of sexually objectified targets showing that these relations would be strengthened for women who reported a lower degree of appearance esteem.

3.3.1 Method

Participants

Sixty-one female participants volunteered in the present study. Their age ranged from 19 to 32 years old ($M = 22.95$; $SD = 2.46$). Sixty-six % indicated to be involved in a romantic relation, while the remaining 34 % were not. In order to detect participants' level of obesity the Body Mass Index (BMI) was calculated using the formula $\text{weight}/\text{height}^2$ (Kg/m^2). Mean height was 1.66 m ($SD = .05$), ranging from 1.54 to 1.80 m. Mean weight was 58.92 Kg ($SD = 8.7$) ranging from 45 to 80 Kg. Participants' mean BMI was 21.29 ($SD = 2.92$) ranging from 16 to 30.48.

Only Italian native-speaking participants who indicated to be heterosexual were retained. As a consequence, five participants had to be discarded from further analyses, because they indicated to be bisexual ($N = 2$), and non-native speakers ($N = 3$). As a result, we retained a total of 56 female participants.

3.3.2 Procedure and measures

Independent variables.

Self-esteem. As a measure of participants' self-esteem we used the State Self-Esteem Scale designed by Heatherton & Polivy (SSES; 1991). Participants were required to report how they felt in that precise moment using a 1 ("not at all") to 5 ("extremely") Likert type scale.

The SSES is designed to detect momentary self-esteem fluctuations. It is composed of 20 items that can be divided into three sub-scales: Performance, Social and Appearance self-esteem. Each of these items is sensitive to changes in different aspects of the self-concept: the performance factor measures the extent to which subjects feel they are performing well and can be seen as an indicator of self-perceived competence, the social factor is highly related to concerns about one's public image and is especially sensitive to situations in which self-presentation is important. Finally, the appearance factor is particularly sensitive to manipulations that make physical appearance salient and concerns a person's satisfaction with one's own body.

In the present study, Cronbach's alphas indicated a good internal reliability for Performance, Social, and Appearance subscales as well as the overall scale ($\alpha = .81$, $\alpha = .80$, $\alpha = .82$, and $\alpha = .90$, respectively). In the further analyses we considered both participants' overall mean and the way they felt with respect to their physical appearance as an index of global and appearance self-esteem respectively. Participants' global self-esteem ranged from 2.2 to 4.84 ($M = 3.46$, $SD = .55$) while the appearance self-esteem index ranged from 1.67 to 5 ($M = 3.33$, $SD = .75$).

The Self-Objectification Questionnaire. Participants' level of self-objectification was assessed through the Self-Objectification Questionnaire (SOQ; Frederickson, Roberts, Noll, Quinn & Twenge, 1998). This is a self-report measure of trait self-objectification according to which participants have to rank order a list of 10 body attributes indicating how important each of

these attributes is for their physical self-concept. 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 (e.g., “*For example, fitness level can have a great impact on your physical self-concept regardless of whether you consider yourself to be physically fit, not physically fit, or any level in between*”). 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.

After considering all attributes simultaneously, participants had to rank order each one of them writing the number (from 0 to 9) in the provided column. Half of the attributes referred to physical appearance (e.g., attractiveness, weight, sex appeal, fitness level and measurements) and the other half consisted of physical competence attributes (e.g., health, strength, physical coordination, energy level, firm/sculpted muscles). The self-objectification index was obtained by separately summing the ranks for appearance-based items and competence-based items and then subtracting the sum of competence ranks from the sum of appearance ranks. In this way scores can range from -25 to 25, with higher scores indicating a greater emphasis on appearance, indicating higher trait self-objectification.

In the present research, the trait self-objectification index ranged from -25 to 23 ($M = -4.38$, $SD = 11.64$). Consistent with objectification theory, trait self-objectification scores were not correlated with BMI ($r = .06$, $p = .67$), confirming that women can be worried about their physical appearance regardless of their effective body size.

The Sociocultural Attitudes Towards Appearance Questionnaire (SATAQ). This 14-items scale was designed by Heinberg, Thompson and Storer (1995) with the aim to measure the influence of the prevailing sociocultural messages about beauty on women’s ideal physical appearance. Specifically, the questionnaire is designed to measure women’s awareness and

internalization of the sociocultural standards of physical beauty. The scale is composed of two distinct factors: 8 items form the Internalization subscale, aimed to measure the endorsement of the ideal standards of beauty and 6 items make up the Awareness subscale, that measures the recognition of such standards. In the present study, Cronbach's alphas indicated a good internal reliability for the Internalization subscale ($\alpha = .85$) as well as for the overall scale ($\alpha = .87$). A fairly bad internal consistency was found for the Awareness subscale ($\alpha = .50$). Given that it was especially the internalization scale we were interested in, as it not merely represents the awareness of the existing cultural prescriptions, but their actual endorsement and given the problematic level of reliability of the awareness scale, we only considered the internalization scale for further analyses.

Participants were provided with a 1 (*"totally disagree"*) to 5 (*"totally agree"*) Likert scale and they were asked to report the extent to which they agreed with each item referring to their personal experience. An internalization index was obtained calculating participants' mean agreement with the content of each item. This index ranged from 1 to 4.75 ($M = 2.32$, $SD = .78$).

Heterosexual motivation. This 3-items scale was created ad hoc for this study with the aim to assess female participants' motivation to take care of their physical aspect in order to look good for 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 other sex"*; *"To look pretty is important for me because it facilitates my relationship with the other sex"*.

From a principal component factorial analysis one factor was extracted explaining 82.57% of the total variance. Cronbach's Alpha indicated a high internal consistency ($\alpha = .89$). An index of heterosexual motivation was calculated based on participants' mean level of agreement with the content of each item. This index ranged from 1 to 5 ($M = 2.91$, $SD = 1$).¹

Dependent variables.

SC-IAT. Participants were presented with a double Single Category-Implicit Association Test (SC-IAT, Karpinski & Steinmann, 2006) in which objectified and non-objectified female pictures had to be categorized together with human and animal attributes. The female pictures were taken from the same sample as the one that was pretested for Study 3. This time, however, both objectified and personalized female target pictures were used. Looking at the pretest judgments we selected ten pictures that only portrayed the image of a single woman: five pictures were significantly judged as objectified ($M = 5.02$, $SD = 1.09$) while the other half were not objectified ($M = 2.41$, $SD = 1.04$). In line with the definition of objectification, the selected objectified female images had a clear body focus emphasizing those body parts that have a sexual function, while the non objectified pictures have a clear focus on female's target face. For this reason, we refer to these pictures as personalized pictures. The selected 5 human and 5 animal related words were the same as those used in Study 3.

The two SC-IAT's have the typical structure that is suggested by Karpinski and Steinmann (2006). Following a training block in which participants had to categorize words as related to animals or humans using a left and a right hand key on a computer keyboard, two critical SC-IATs were created one that looked at the human and animal associations with objectified pictures and one that looked at the same associations with the personalized targets. The order in which the four blocks appeared was controlled counterbalancing the compatible (animal-objectified picture/human-personalized picture) and incompatible blocks (animal-personalized picture/human-objectified picture) between participants. The same was done with respect to the order of the presentation of the two SC-IAT's.

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.

3.3.3 Results

In *Table 3.2* the means and standard deviations for the measured variables and the zero-order correlations among these variables are shown.

Humanity index. First of all, we considered participants preference to associate human vs. animal concepts to the objectified and personalized female targets that we used in the SC-IAT's. Data were treated using a 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 female pictures and one for personalized female pictures. In both cases higher numbers indicated an increased preference to associate human concepts to the target at hand. As a first step we calculated the difference between these two indexes subtracting the SC-IAT D-score for the objectified pictures from the SC-IAT D-score for the personalized ones. This difference score was inserted in a One Sample t-test and its' difference from zero was calculated. The analysis revealed that there was no preference to associate personalized compared to objectified female pictures to human-related words. However, we repeated the same analysis inserting the two SC-IAT indexes separately. This time, the analysis revealed that female participants significantly showed a preference to associate the pictures of the personalized female target with human-related words ($M = .12$), $t(55) = 2.56$, $p = .01$, while the same preference toward objectified female target was not found ($M = .02$), $t(55) = .44$, $p = .66$.²

Independent variables.

Global and Appearance Self-esteem. Given the focus of the present study, we decided to only look at the moderating role of participants' global and appearance self-esteem on the dehumanization of objectified female targets. As dependent variables, we considered the difference between the two SC-IAT D-scores as well as each index separately. This was done in

order to test whether the dehumanization effect was mainly triggered by a comparison between the two different depictions of woman or was due to the simple effect on one of the specific female depiction (objectified vs. personalized). We regressed participants' global and appearance self-esteem separately on each of these dependent variables. Neither the former nor the latter index of self-esteem significantly predicted participants' level of dehumanization (all p 's > .43), indicating that it is not participants' global or their appearance self-esteem that is involved in the dehumanization of objectified female targets.

In addition, we hypothesized that appearance esteem more than simply moderating the dehumanization of objectified female targets would interact with participants' level of self-objectification or internalization in predicting participants tendency to dehumanize. Again, none of these analyses showed to be significant ($ps > .90$).

Self-objectification. We regressed the humanity indices and their difference on participants' level of self-objectification. Results showed that participants' level of self-objectification significantly predicted their tendency to dehumanize the objectified female targets, $b = -.011$, $SE = .004$, $p = .003$, indicating that the more our female participants self-objectified the more they were prone to de-humanize their objectified counterparts. The same was not true for the association of human-related words with personalized female targets or the difference score between the two female targets ($ps > .15$).

Internalization of the sociocultural standards of physical beauty. In order to verify the effect of the internalization subscale of the SATAQ, we regressed the indices of the SC-IAT D-scores and their difference separately on this variable. Results showed that this variable significantly predicted the level of humanness that participants attributed to personalized female targets compared to objectified ones, $b = .17$, $SE = .08$, $p < .05$. Participants who have internalized the sociocultural prescriptions regarding ideal beauty showed a significant preference to attribute more humanness to personalized compared to objectified female targets. No other effects emerged (all $ps > .14$) in the other regressions.

Heterosexual motivation. Then, we considered the effect of participants' level of heterosexual motivation, that is, participant's motivation to take care of their physical appearance in order to look attractive for males, on the SC-IAT D-scores and their difference. Results indicated that participants' heterosexual motivation significantly predicted both the difference in humanness associations to personalized and objectified female targets in the former targets' advantage and the lack of such preferences for sexually objectified female targets ($b = .12$, $SE = .06$, $p < .05$ for difference in human associations between personalized and objectified targets and $b = -.13$, $SE = .04$, $p < .01$ for objectified targets only). These results indicate that participants who take care of their physical appearance to look beautiful for the opposite sex showed, on the one hand, a significant preference to associate humanity attributes to non-objectified female targets compared to objectified ones, and, on the other hand, to significantly and directly dehumanize the objectified female targets. It is important to note that this last finding was obtained independently whether or not participants reported to be involved in a romantic relation. This variable was inserted in a regression together with participants' heterosexual motivation. Results showed that the presence of a romantic relation neither covaried with the extent to which participants dehumanize objectified female targets ($p = .49$), nor did it change the effect of participants' heterosexual motivation. Finally, the motivation to be physically attractive for men did not predict the humanization of personalized targets ($p = .97$).

Identification. Finally, we hypothesized that participants' level of identification with objectified and non-objectified female targets could moderate their dehumanization toward these targets. Results showed that neither the identification with objectified female targets nor that with the non-objectified female targets moderated the dehumanization indices ($p's > .23$).

Mediation analysis. As hypothesized we found that those participants who were especially motivated to look attractive for the other sex, were more prone to dehumanize objectified

female targets. We also found that high self-objectifiers did the same. These findings testify that both heterosexual motivation and self-objectification are involved in the dehumanization of sexy women. More specifically, we hypothesized that it should be especially those women who were motivated to look attractive for men that should pay more attention to their physical appearance and be more prone to engage in a competition with sexually objectified women. The alternative hypothesis, instead, that participants' identification with sexually objectified women would moderate the dehumanization of sexually objectified women was not confirmed. Therefore, it seems that a competitive, instead of an assimilative motivation underlies participants' tendency to dehumanize sexually objectified female targets. In both cases, we proposed that self-objectification would be linked to both processes. As a result, we proposed a mediational model of the dehumanization of sexual objectified female targets based on participants' level of heterosexual motivation. According to the model, we hypothesized that self-objectification could mediate the relationship between heterosexual motivation and dehumanization of sexually objectified female targets. Following the procedure for testing mediation proposed by Baron and Kenny (1983), three separate regression equations were estimated. In the first equation, heterosexual motivation was a significant predictor of the hypothesized mediator, self-objectification, $b = 5.776$, $SE = 1.38$, $p < .001$. In the second regression, the mediator, self-objectification, was a significant predictor of the dehumanization index, $b = -.011$, $SE = .004$, $p < .01$. Finally, as shown in *Figure 3.1*, when self-objectification index was included in the regression model, the effect of heterosexual motivation on participants' level of dehumanization disappeared, $b = -.08$, $SE = .05$, $p = .11$, while the effect of self-objectification remained marginally significant, $b = -.008$, $SE = .004$, $p = .06$. The Sobel (1982) test was only marginally significant, $Z = -1.80$, $p = .07$; indicating that self-objectification partially mediated the relationship between female participants' heterosexual motivation and their dehumanization of sexually objectified female targets.

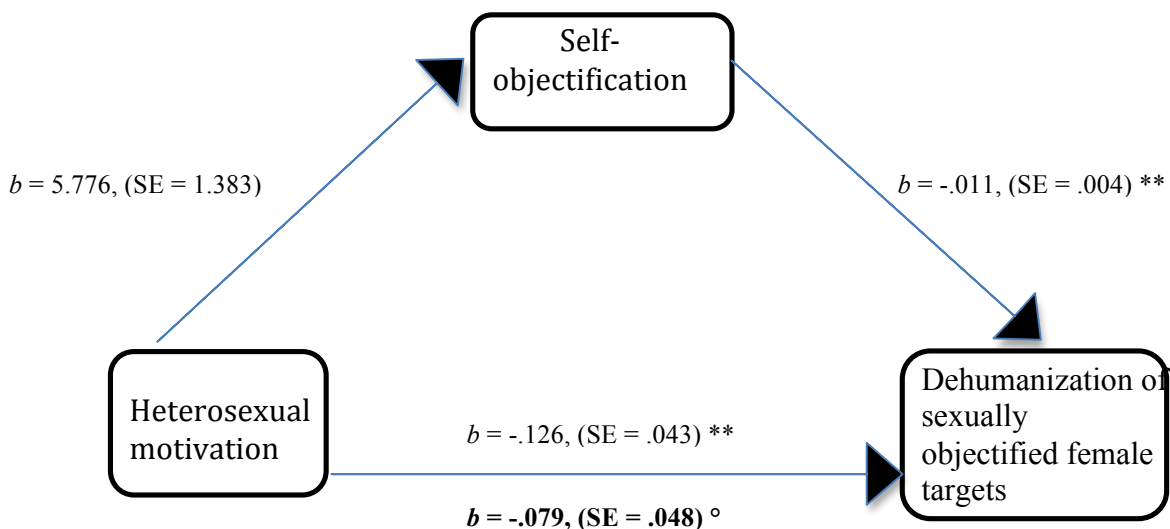
We also tested whether the internalization of the beauty image mediated the link between participants' heterosexual motivation and the difference between objectified and personalized female targets. This mediational model was not confirmed.

Table 3.2: Means, standard deviations, and zero-order correlations for measured variables.

	1	2	3	4	5	6	7	8
1. HUMANITY INDEX FOR OBJECTIFIED FEMALE TARGETS	1.00							
2. HETEROSEXUAL MOTIVATION	-.37**	1.00						
3. SELF-OBJECTIFICATION	-.39**	.49**	1.00					
4. INTERNALIZATION	-.20	.44**	.28*	1.00				
5. APPEARANCE ESTEEM	.03	-.09	-.07	-.39**	1.00			
6. BMI	-.02	-.02	.06	.29*	-.45	1.00		
7. IDENTIFICATION WITH OBJECTIFIED FEMALE TARGETS	-.03	.06	.04	.19	.35**	-.05	1.00	
8. IDENTIFICATION WITH PERSONALIZED FEMALE TARGETS	.03	-.09	.05	-.09	.34**	-.01	.33*	1.00
MEAN	.02	2.91	-4.38	2.32	3.38	21.14	.06	.53
STANDARD DEVIATIONS	.34	.99	11.64	.78	.75	2.83	.10	.34

* $p < .05$, ** $p < .01$

Figure 3.1: Regression analyses testing for mediation by female participants' self-objectification of their heterosexual motivation on dehumanization of sexually objectified female targets.



Note. The bold-faced index shows the effect of the predictor when controlling for the mediator
[°] $p = .11$, ** $p < .01$, *** $p < .001$

3.3.4 Discussion

This study was designed with the aim to verify what personal characteristics most likely make women dehumanize sexually objectified female targets. Knowing more about these characteristics allows us to get a better understanding of the driving forces behind female's tendency to dehumanize sexually objectified women. Specifically, we focused on two inter-individual difference variables that were hypothesized to moderate women's tendency to dehumanize sexually objectified female targets. One was self-objectification and the other was the extent to which participants internalized the sociocultural beauty standards. Both variables were thought to moderate female participants' perceptions of objectified female targets.

First of all, comparing participants' associations of human-related words with objectified and personalized female targets, female participants showed a preference to associate only personalized, but not objectified female pictures with human-related words. In line with our hypothesis and previous research (Vaes et al., 2010), this effect indicates that only personalized women were significantly humanized, while objectified women were not.

More importantly, the present research aimed to get a better understanding of why women might engage in this process of dehumanization. Two alternative hypotheses were tested. Either participants (dis)identify with objectified female targets and (de)humanize them as a result or they see them as a competitors in an heterosexual arena and dehumanize them for this reason. To disentangle both processes, we measured participants' motivation to take care of their physical appearance to attract male attention and their level of identification with objectified and personalized female targets. Moreover, we reasoned that both competitive forces and processes of identification could be reactions of self-objectifiers and/or those people that have internalized the beauty standard. Indeed, these women value their physical appearance above all and likely compare and value other women on this vary same dimension

(see also, Strelan & Hargreaves, 2005). This means that they can see objectified female targets as models to live up to (identification) or as potential competitors. Therefore, both self-objectification and internalization were proposed as potential mediators of the relation between competitive or assimilative processes that predicted reactions of dehumanization to objectified female targets. Results did not confirm the moderating role of identification, but their heterosexual motivation did moderate the dehumanization of sexually objectified female targets. As expected, this relation was partially mediated by participants' level of self-objectification. The more participants were motivated to look good to attract the attention of the other sex, the more they reported to self-objectify. Self-objectification also increased participants' tendency to dehumanize sexually objectified female targets and eliminated the effects of participants' heterosexual motivation on the main dependent variable. This mediational model shows that women dehumanize sexually objectified targets because they see them as potential competitors in their strive to draw the attention of males emphasizing the importance of their physical attractiveness in the process (i.e., self-objectify).

The same mediational model was not confirmed for participants' tendency to internalize the sociocultural beauty prescriptions. Even though this variable significantly predicted the difference in human associations between objectified and personalized female pictures, this variable did not mediate the relation between participants' heterosexual motivation and the dehumanization difference score. Likely, this lack of mediation is due to the fact that participants' tendency to internalize the beauty standard, polarized the perception of both objectified and personalized female targets, while participants' heterosexual motivation, mainly changed the perception of sexually objectified female targets.

Interestingly, the effects of participants' heterosexual motivation were obtained regardless of whether participants were effectively involved in a romantic relationship. The fact that appearance self-esteem did neither moderate participants' tendency to dehumanize sexually objectified female targets nor the relations between self-objectification and dehumanization,

suggests that in this process it is not just participants' satisfaction or dissatisfaction with their physical appearance to play a role. Moreover, this result is corroborated by the lack of correlation between any of the main variables and the BMI, showing that participants' effective body size was not correlated with their tendency to self-objectify or with their motivation to take care of their physical appearance to be attractive to men.

3.4 General discussion Study 3 & Study 4

In two studies we investigated the possible motivations that could lead women to dehumanize their sexually objectified counterparts. We considered target and perceiver characteristics separately to get a better understanding of this phenomenon.

Focusing on target characteristics, Study 3 showed that manipulating the social meaning of sexually objectified female targets changed the way they perceived them in human terms. More specifically, when female participants were reminded of the fact that objectified female targets may promote an objectified culture they did not humanize the sexually objectified female targets much like they did in the baseline condition. As such, this result seems to suggest that this is the way in which these female targets are usually perceived. On the contrary, when their role as victims was stressed female participants were more inclined to significantly humanize the sexually objectified female targets. We propose that this shift in perception is due to the fact that women include (victim condition) or exclude (promoter and control condition) sexually objectified female targets from the overall gender category. This interpretation was confirmed indirectly by the fact that female participants judged expressed a lesser degree of agreement when they were primed with the idea that women often promote an objectified culture in which the most important female characteristic is to look sexy and competent and intellectual abilities are not valued. The fact that the sexually objectified female targets were judged more competent in the victim condition corroborates this finding as it indicates that women in this condition wanted to go beyond the mere

appearance of these objectified targets not excluding that they had a fair amount of competence.

Focusing on inter-individual difference variables that have shown to be relevant in the context of self- and other-objectification, Study 4 aimed to identify the female personality that would be most inclined to dehumanize sexually objectified female targets. A first important finding was that, as in the studies of Vaes et al. (2010), participants mainly associated human-related words to personalized as compared to objectified female targets.

More importantly, Study 4 showed that especially those women, who emphasize the importance of their physical attractiveness in attracting the attention of the other sex, dehumanized the sexually objectified female targets. These women more likely perceive the sexy depictions of objectified women that are generally judged as attractive by males as competitors in the heterosexual arena and therefore dehumanize them as a result. This relation was partially mediated by the extent to which they reported to put great importance to their physical appearance, that is the extent to which they self-objectified. Indeed, it are likely those women who attribute great importance to their physical appearance that likely compare themselves with these sexually idealized images.

Taken together, the results of both studies show that women when confronted with sexually objectified depictions of their gender category tend to distance themselves from these representations; either because they see them as promoters of an objectifying culture they do not agree with or because they value their own physical appearance and see these sexy women as potential competitors in their strive to attract the attention of the other sex.

3.4.1 Limits and future researches

Even though study 3 clearly showed that reminding female participants of the fact that all women are potential victims or are often promoters of an objectifying culture moderated the dehumanization of sexually objectified female targets, it does not allow pinpointing the exact

processes that drives this effect. One possibility could be linked to the black sheep effect (Marques, Yzerbyt & Leyens, 1988). According to this dynamic, sexually objectified female targets could be seen as the black sheep among women and their dehumanization would be a means through which women distance themselves from such representations in order to preserve the good image of the ingroup; that is, the female category at large. Another mechanism that could underlie the above-presented findings is a process of re-categorization (Yzerbyt et al., 2003). Although we mentioned this process before, we did not directly test it. Much like Yzerbyt et al, it could be that the female participants in the present study were more willing to include sexually objectified female targets in their gender ingroup when they saw them as potential victims of an objectifying culture much like themselves. Instead, when their role as promoter was emphasized they perceived the same type of targets as outsiders or even outgroup members that were dehumanized. Both processes could underlie the reported findings and are not mutually exclusive. Future research should disentangle the importance of these various processes in order to further understand why women dehumanize sexually objectified females.

Study 4 showed that those female participants who were highly motivated to look attractive for the other sex dehumanized sexually objectified female targets to a greater extent. This effect was interpreted in such a way that women with a high heterosexual motivation more likely see other sexy women as competitors to draw the attention of males. Although we believe that this explanation is promising, the indirect nature of the measure of heterosexual motivation that we used does not allow being conclusive on this interpretation. This indirect measure was used because we thought that with a more explicit question about the potential competition between women, it would have been hard to get sincere responses. A potential alternative that would allow avoiding this problem and measuring the process of interest more directly could be envy. Our results seem indeed to suggest that only those women that retain physical appearance as an important standard dehumanize the sexually objectified

female targets they were confronted with. It is likely that it are especially these women who compare themselves with these targets on their looks, increasing the possibility to feel envious and show avoidance reactions, like dehumanization. It could be interesting for future research address this point and clarify the role of feelings of envy in shaping women's attitudes towards sexy and objectified female targets.

All in all, these findings are important, in that, they allow understanding the role of both target (Study3) and perceiver characteristics (Study 4) in the dehumanization of sexually objectified female targets. Moreover, they give more insight in the feminine models that our society proposes and the way women perceive and react towards them.

1. In the present study another hypothesis was tested. Following Terror Management Theory (see for example Goldenberg et al., 2000 and Grabe and colleagues, 2005) a person sticks to the cultural worldview he or she belongs to in order to deal with the existential threat that is caused by individuals' awareness of the inevitability of death. As research by Goldenberg (2005) has indicated, our bodies become problematic when thoughts about our own mortality become salient, therefore the activation of death thoughts could have emphasized the predicted relations between self-objectification and the dehumanization of sexually objectified female targets. In order to test this hypothesis, a typical MS manipulation (compared to a control topic) was used: participants were asked to take a few moments and think about their own death. They were provided with two open-ended questions in which they were first asked to report the feelings that the thought of their own death arose in them and then to fully describe what they thought might happen to their physical body when they would physically die. These questions were always posed after participants responded to the personality variables, but before doing the SC-IAT. Given that the MS manipulation did not show any main or interaction effects with any of the other variables (all $p's > .23$) this variable will not be discussed any further.
2. We inserted the two SC-IAT D-scores in a 2 (Target: objectified vs. personalized) X 2 (SC-IAT order: objectified SC-IAT first vs. personalized SC-IAT first) X 2 (Trial order: compatible trials first vs. incompatible trials first) mixed ANOVA with the first variable manipulated within subjects. The only significant effect that emerged was an interaction between Trial order and Target, $F(1,52) = 4.04$, $p = .05$, $\eta_p^2 = .07$. When participants had to perform the incompatible trials first (e.g., animal words-personalized picture/human words-objectified picture), objectified pictures were less associated with humanness than personalized ones ($M = -.03$ and $M = .19$, $p = .02$).

Instead, when they had to do the reverse (e.g., animal words-objectified picture/human words-personalized picture) no differences occurred between objectified and personalized pictures in terms of attributed humanness (respectively $M = .07$ and $M = .04$, $p = .78$).

GENERAL CONCLUSIONS

The meaning of sexual female objectification

With the aim to get a better understanding of sexual female objectification (Bartky, 1990; Frederickson & Roberts, 1998) the present work has examined the cognitive consequences of a self-objectifying practice on woman's self-perceptions (Chapter 2) and the possible motivations that drive changes in women's perceptions regarding their sexually objectified counterparts in human terms (Chapter 3).

More specifically, in Chapter 2 (Study 1 and Study 2) we have examined the psychological functions of makeup use and its consequences on woman's self-perceptions and on her competence. First of all, both Study 1 and Study 2 broaden our knowledge about the self-objectification process itself, insofar as propose one's person own face as a possible and new source of self-objectification. Self-objectification has always been considered a body-based experience, related to body weight and size, disregarding another important physical feature in defying beauty that is a person's face. Makeup is often framed and publicized as a way for women to express their personality. Matching these insights, in two studies we have shown that changing one's facial features through the use of makeup is linked with woman's tendency to self-objectify. Far from being an attitude through which a woman can express her personality freely and in a genuinely novel way, makeup increases a woman's worry about physical aspects of her self in general (Study 1 and Study 2) and it is negatively linked with woman's reported facial attractiveness (Study 2). Still, it seems that the effects on woman's perceived and effective competence deriving from the use of makeup are due to the salience of a normative context in which makeup is used; a context that reminds women that their potential competences are put to the test. In line with this premise, results of Study 1 showed that applying makeup in a context in which it is made clear that not so much appearance

related qualities, but especially one's competence is evaluated; undermine self-perception along the competence dimension. Indeed, only the increased intention to wear makeup to get ready for a job interview (e.g., a competence-based context), significantly predicted a loss in woman's self-perceived competence. When similar normative prescriptions were not made salient, woman's self-perceived competence was not negatively affected by the use of makeup (Study 2).

In Chapter 3, we have analyzed the processes that are involved in the objectification of others focusing on target characteristics (Study 3) or on the interaction between both target and perceiver characteristics (Study 4). In Study 3, we showed that priming female participants with the idea that women can be promoters or victims of an objectifying culture changes the way sexually objectified female targets were perceived in human terms. When their potential role as promoters of a female image in which (sexy) looks are the most important characteristic of social judgment is highlighted, women distance themselves from such sexualized depictions of their gender category resulting in the dehumanization of these female targets. On the contrary, when perceived as victims of a culture that objectifies the female body, female participants are more willing to humanize the same sexy targets, likely because they include them as members in the overall gender group. Finally, in Study 4 we tried to delineate what kind of woman should be more prone to dehumanize sexually objectified female targets. In doing so, we have considered several personality characteristics that have shown to be significant in research on self- and other-objectification. Our findings indicated that female participants who are motivated to look attractive for the other sex increased their tendency to dehumanize sexually objectified female targets while their identification with these female targets did not show any effects. We proposed that this effect was due to the fact that a high heterosexual motivation likely sees these good-looking objectified female targets as competitors in their strive for male attention. That these women mainly compare themselves with these women on their physical appearance was confirmed

by the fact that they reported to attribute greater importance to their physical appearance, as was shown by their increased tendency to self-objectify. Indeed, results showed that participants' tendency to self-objectify partially mediated the relation between heterosexual motivation and the dehumanization of sexually objectified female targets. Previous research has shown that high self-objectifiers more readily objectify other women in general (Strelan and Hargraves, 2005), because valuing the dimension of external beauty for themselves they tend to value physical attributes for women in general comparing them on this dimension and more likely seeing them as competitors dehumanizing them as a result. As such, these results seem to suggest that women, especially those who want to cure their looks to attract male attention are inspired by the beauty ideals that sexually objectified females emanate, at the same time seeing them as competitors to dehumanize.

The twisted appeal of sexual female objectification

Overall, the present work seems to indicate that women's attitude toward the sexualization and objectification of the female body is mixed.

On the one hand, women are under the spell of self-objectification. Our findings, indeed, showed that makeup is linked with self-objectification negatively affecting females' perceptions of their physical appearance. Female participants who reported the intention (Study 1) or more broadly the habit (Study 2) to use makeup, at the same time reported increased worries about their physical appearance and about their facial attractiveness. More importantly, when they had to imagine a context in which they could expect that their competence would be put to the test, the more they reported the intention to use makeup, the less they still perceived themselves as competent. Still, a vast majority of women continue to use makeup.

At least to some extent, women are also fascinated by the feminine, often objectified models that are promoted by the Western media. Our female participants who were more sensitive

and put great importance to their physical appearance (i.e., self-objectified), were more likely to consider objectified female targets as ideals of beauty to live up to (i.e., internalize the socio-cultural beauty standard). Although the norms of feminine beauty in Western cultures have varied considerably over time, they always have promoted beauty icons representing young women generally judged as beautiful and very attractive.

On the other hand, however, women show to defend themselves against and take distance from these beauty standards expressing disapproval toward the overwhelming sexualization of their bodies and come to perceive the targets that embody these ideals as not fully human.

Our studies showed that women are especially motivated to do so depending on the meaning that was attributed to these targets: as potential competitors in an heterosexual arena or as promoters of an objectifying culture that puts sexy appearance in front of women's intellectual skills.

Taken together, it seems that women have a contradictory relationship with female sexual objectification. They often comply with practices that objectify their bodies and at least to a certain extent look at sexually objectified female targets as beauty standards to live up to. At the same time, they are able to defend themselves from these depictions expressing disapproval and attributing them a not fully human status.

But, where do these mixed feelings come from? It is possible that women are in conflict with their bodies largely because of the mixed cultural messages they receive about the significance and the role that their bodies and their sexuality have.

Objects in need of transformation

Physical beauty and attractiveness is important for both men and women. However, sociocultural prescriptions regarding beauty are particularly emphasized for women compared to men. Everywhere we are surrounded by suggestions and opportunities, devoted to promote and improve women's physical appearance. Fashion and beauty industries know

this notion very well and advertise a wide variety of body altering practices; among which makeup is one of the most widely used. All these messages and suggestions, if on the one hand seem to glorify the female body, providing women with several opportunities to indulge themselves with all the proposed practices; on the other hand, they constantly remind them that they fail to measure up to the beauty ideals prescribed by this appearance culture, that states: *“female bodies are objects in need of transformation.”* Specifically, our findings showed that makeup is not or hardly a way through which women can express their “artistic inclinations” regarding their face in line with their personality inclinations. Instead, results suggested it to be a self-objectifying practice, able to increase worries about women’s physical appearance that undermines their self-perceptions of competence.

More broadly speaking, Western societies encourage women to believe that their worth depends on their physical appearance. How a woman’s body appears to others can translate in societal and economic attainments (Frederickson & Roberts, 1998). However, as we showed, those women who decide to go with these possibilities and gain economic and societal power putting their (sexy) looks before their competence, trigger the disagreement of other women jeopardizing even the extent to which they are perceived as complete human beings.

Still, if women’s mixed feelings toward the female body come from the ambiguous messages that are emanated in our society, one can still wonder why society would create such messages. One possible answer is suggested by terror management theory (TMT, Greenberg, Pyszczynski & Solomon, 1986), which argues that human beings, unlike other animals are aware of their vulnerability to death. This awareness together with our survival instinct creates an existential threat that obliges us to live with the realization that inevitably we all have to die. Human beings have tried to cope with this existential threat by construing and conforming to cultural systems of meaning (e.g., cultural worldview) in which we see ourselves as a valued member (self-esteem). Our body is probably the most evident reminder

of our vulnerability and thus mortal nature, potentially undermining the efficacy of these symbolic manifestations of meaning and value (Goldenberg, 2005). We experience the world through our senses and body, but it is the end of our physical body that establishes our death. For these reasons, Goldenberg and colleagues (2001; see also Goldenberg, 2005) suggest that there is ambivalence toward all that is physical or creaturely. According to this view, the female body is particularly problematic. Because of their reproductive capabilities (e.g., menstruation, pregnancy, lactation, bear children) women's bodies are particularly salient reminders of our animal nature. From this perspective, the sexual objectification of female bodies serves to strip women of their connection to nature (Goldenberg & Roberts, 2004). As stated above, they are objects in need of transformation: they are beautiful and acceptable only under certain conditions prescribed by one's own culture. Only when deodorized, sanitized, waxed, decorated, embellished and thus to some extent objectified, female bodies are accepted in the world around us (e.g., to sell a wide variety of products) and rewarded with economic and societal achievements. Only when stripped of their animal nature they are able to offer protection against existential threats. Women tend to obey willingly and even internalize these body-altering practices showing a tendency to self-objectify, even if a conduct like this has potential health as well as emotional and cognitive consequences.

However, the objectification of the female body as a defense against an omnipresent existential threat, is likely not always effective. The prevailing image of objectified women that is promoted by the Western visual media are sexually stimulating, often portraying women in sexually provocative poses that can easily be seen as humiliating and vulgar. In these cases, it becomes unlikely that these sexually objectified depictions of female bodies are seen as female representations that are meaningful and accepted in the larger cultural worldview. As our findings show (Chapter 3, Study 3 and Study 4) (and see Vaes et al., 2010), when confronted with sexually objectified targets both women and men attribute them a lesser degree of uniquely human traits and in doing so perceive them closer to animals. In

addition, within the terror management framework, it has been shown that a subliminal mortality reminder reduced men's attractiveness ratings of sexually alluring women and leads them to decrease their interest in a seductive woman (Landau & colleagues, 2006; Study 1 and Study 3, respectively).

As such, it seems that the ambivalence that women show toward the sexual objectification of their bodies mirrors that what is embedded in our society. Even though one could hypothesize that self-objectification serves to manage an individual's existential concerns, we cannot entirely escape from these threats because we cannot fully deny women's corporeal, physical bodies. The only solution for women, it seems, is to keep an ambivalent look on the sexual objectification of their bodies: *endorse* with self-objectifying practices, at the same time *avoiding* that their bodies are treated as if they were capable of representing them, promoting a cultural shift of attention in favor of their entire person.

REFERENCES

- Report of the APA task force on the sexualization of girls (2007). Washington, DC: American Psychological Association. Retrieved from <http://www.apa.org/pi/wpo/sexualization.html>.
- 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.
- Aubrey, J. S., & Taylor, L. D. (2009). The role of lad magazine in priming men's chronic and temporary appearance-related schemata: an investigation of longitudinal and experimental findings. *Human Communication Research, 35*, 28-58.
- Bartky, S. L. (1990). *Femininity and Domination: Studies in the Phenomenology of Oppression*. New York: Routledge.
- Breines, J. G., Crocker, J., & Garcia, J. A. (2008). Self-Objectification and well-being in women's daily lives. *Personality and Social Psychology Bulletin, 34*, 583-598.
- Calogero, R. M., Devis, W. N., & Thompson, J. K. (2005). The role of self-objectification in the experience of women with eating disorders. *Sex Roles, 52*, 43-50.
- Chao, A., & Schor, J. B. (1998). Empirical tests of status consumption: Evidence from women's cosmetics. *Journal of Economic Psychology, 19*, 107-131.
- Cikara, M., Eberhardt, J. L., & Fiske, S. T. (in press). From agents to objects: Sexist attitudes and neural responses to sexualized targets. *Journal of Cognitive Neuroscience*. doi: 10.1162/jocn.2010.21497.
- Cox, C. L., & Glick, W. H. (1986). Resume evaluations and cosmetic use: When more is not better. *Sex Roles, 14*, 51-59.
- Davies, P. G., Spencer, S. J., Quinn, D. M., & Gerhardstein, R. (2002). Consuming images: How television commercial that elicit stereotype threat can restrain women academically and professionally. *Personality and Social Psychological Bulletin, 28*, 1615-1628.

- Devue, C., Van Der Stigchel, S., Brédart, S., & Theeuwes, J. (2009). You do not find your face faster; you just look at it longer. *Cognition*, *111*, 114-122.
- Duval, S., & Wicklund, R. A. (1972). A theory of objective self awareness. Oxford, UK: Academic Press.
- Engle, R. W. (2002). Working memory capacity as executive attention. *Current Directions in Psychological Science*, *11*, 19-23.
- Fatt, J. P. T. (2000). Attractiveness and outcome of job interviews. *Management Research News*, *23*, 11-18.
- Fink, B., & Neave, N. (2005). The biology of facial beauty. *International Journal of Cosmetic Science*, *27*, 317-325.
- Fiske, S. T., Cuddy, A. J.C., & Glick, P. (2007). Universal dimensions of social cognition: warmth and competence. *Trends in Cognitive Sciences*, *11*, 77-83.
- Forbes, G. B., Collinsworth, L. L., Jobe, R. L., Braun, K. D., & Wise, L. M. (2007). Sexism, Hostility toward Women, and Endorsement of Beauty Ideals and Practices: Are Beauty Ideals Associated with Oppressive Beliefs? *Sex Roles*, *56*, 265-273.
- 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.
- Frederickson, B. L., Roberts, T. A., Noll, S. M., Quinn, D. N., J. M., & Twenge (1998). That Swimsuit Becomes You: Sex Differences in Self-Objectification, Restrained Eating, and Math Performance. *Journal of personality and social Psychology*, *75*, 269-284
- Gay, R. K., & Castano, E. (2010). My body or my mind. The impact of state and trait objectification on women's cognitive resources. *European Journal of Social Psychology*, *40*, 695-703.
- Geller, V., & Shaver, P. (1976). Cognitive consequences of self-awareness. *Journal of Personality and Social Psychology*, *12*, 99-108.

- Goldenberg, J. L. (2005). The body stripped down: An existential account of the threat posed by the physical body. *Current Directions in Psychological Science, 14*, 224-228.
- Goldenberg, J. L., Pyszczynski, T., Greenberg, J., Solomon, S., Kluck, B., & Cornwell, R. (2001). I am NOT an animal: Mortality salience, disgust, and the denial of human creatureliness. *Journal of Experimental Social Psychology: General, 130*, 427-435.
- Goldenberg, J. L., & Roberts, T. A. (2004). The beast within the beauty. An existential perspective on the objectification and condemnation of women. In J. Greenberg, S. L. Koole, T. Pyszczynski (Ed.), *Handbook of Experimental Existential Psychology* (pp. 71-85). New York: The Guilford Press.
- Gray, H. M., Gray, K., & Wegener, D. M. (2007). Dimensions of mind perception. *Science, 315*, 619.
- Greenberg, J., Pyszczynski, T., & Solomon, S. (1986). The causes and consequences of a need for self-esteem: A terror management theory. In R. F. Baumeister (Ed.), *Public and Private self* (pp. 189-212). New York: Springer-Verlag.
- 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.
- Gurung, R. A. R., & Chrouser, C. J. (2007). Predicting objectification: Do provocative clothing and observer characteristics matter? *Sex Roles, 57*, 91-99.
- Harris, L. T., & Fiske, S. (2006). Dehumanizing the lowest of the low: Neuroimaging responses to extreme out-groups. *Psychological Science, 17*, 847-853.
- Harrison, K. (2003). Television viewers' ideal body Proportions: The case of the curvaceously thin woman. *Sex Roles, 48*, 255-264.

- Haslam, N. (2006). Dehumanization: An integrative review. *Personality and Social Psychology Review, 10*, 252-264.
- Haslam, N., Bain, P., Douge, L., Lee, M., & Bastian, B. (2005). More human than you: Attributing humanness to self and others. *Journal of Personality and Social Psychology, 89*, 937-950.
- Haslam, N., Loughnan, S., Kashima, Y., & Bain, P. (2008). Attributing and denying humanness to others. *European Review of Social Psychology, 19*, 55-85.
- Heatherton, T. E., & Polivy, J. (1991). Development and validation of a scale for measuring state self-esteem. *Journal of Personality and Social Psychology, 60*, 895-910.
- Heflick, N. A. & Goldenberg, J. L., Cooper, D. P., & Puvia, E. (in press). From women to objects: Appearance focus, target gender, and perceptions of warmth, morality and competence. *Journal of Experimental Social Psychology*. [doi:10.1016/j.jesp.2010.12.020](https://doi.org/10.1016/j.jesp.2010.12.020).
- 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.
- Heinberg, L. J., Thompson, J. K., & Stormer, S. (1995). Development and validation of the sociocultural attitudes towards appearance questionnaire. *International Journal of Eating Disorders, 17*, 81-89.
- Huguet, P., Croizet J. - C., Richetin, J. (2004). Is “What has been cared for” necessarily good? Further evidence for the negative impact of cosmetics use on impression formation. *Journal of Applied Social Psychology, 34*, 1752-1771.
- Kane, M. J., & Engle, R., W. (2003). Working-memory capacity and the control of attention: The contributions of goal neglect, response competition, and task set to Stroop interference. *Journal of Experimental Psychology: General, 132*, 47-70.
- 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.

- Kyle, D. J. & Mahler, H. I. M. (1996). The effects of hair color and cosmetic use on perceptions of a female's ability. *Psychology of Women Quarterly, 20*, 447-455.
- Landau, M. J., Greenberg, J., Solomon, S., Martens, A., Goldenberg, J. L., Gillath, O., Cox, C., Pyszczynski, T. (2006). The sirens's call: Terror management and the threat of men's sexual attraction to women. *Journal of Personality and Social Psychology, 90*, 129-146.
- Lavie, N., Ro, T., & Russell, C. (2003). The role of perceptual load in processing distractor faces. *Psychological Science, 14*, 510-515.
- Lavine, H., Sweeny, D., & Wagner, S. H. (1999). Depicting women as sex objects in television advertising: Effects on body dissatisfaction. *Personality and Social Psychology Bulletin, 25*, 1049-1058.
- Leyens, J.Ph., Vaes, J., & Paladino, M.P. (in press). Essence and mind: Towards an integration of unique versus typical humanity? In: M. Drogosz, M. Bilewicz, and M. Kofta (Eds.), *Poza stereotypy: Dehumanizacja i esencjalizm w postrzeganiu grup społecznych / Beyond stereotypes: Dehumanization and essentialism in group perception.*
- Liebling, B. A., & Shaver, P. (1973). Evaluation, self-awareness, and task performance. *Journal of Experimental Social Psychology, 9*, 297-306.
- 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.
- MacLeod, C. M. (1991). Half a century of research on the Stroop effect: An integrative review. *Psychological Bulletin, 109*, 163-203.
- Marques, J. M., Yzerbyt, V., & Leyens, J.-Ph. (1988). The "Black Sheep Effect": Judgmental extremity towards ingroup members as a function of group identification. *European Journal of Social Psychology, 18*, 1-16
- McKinley, N. M., & Hyde, J. S. (1996). The objectified body consciousness scale: Development and validation. *Psychology of Women Quarterly, 20*, 181-215.

- Moradi, B., & Huang, Y-P. (2008). Objectification theory and psychology of women: a decade of advance and future directions. *Psychology of women Quarterly*, 32, 377-398.
- Morris, D. (2004). *The Naked Woman. A Study of the Female Body*. Jonathan Cape: London.
- Mulhern, R., Fieldman, G., Hussey, T., Lévequet, J. L., & Pineau, P. (2003). Do cosmetics enhance female Caucasian facial attractiveness? *International Journal of Cosmetic Science*, 25, 199-205.
- Nash, R., Fieldman, G., Hussey, T., Leveque, J. - L. & Pineau, P. (2006). Cosmetics: They influence more than Caucasian female facial attractiveness. *Journal of Applied Social Psychology*, 36, 493-504.
- Quinn, D. M., Kallen, R. W., Twenge, J. M., & Fredrickson, B. L. (2006). The disruptive effect of self-objectification on performance. *Psychology of Women Quarterly*, 30, 59-64.
- Rachel, M. C., 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.
- Richetin, J., Croizet J. - C., & Huguet, P. (2004). Facial makeup elicits positive attitudes at the implicit level: Evidence from the implicit association test. *Current Research in Social Psychology*, 9, 145-164.
- Robertson, J., Fieldman, G., & Hussey, T. (2008). "Who wear cosmetics?" Individual differences and their relationship with cosmetic usage. *Individual Differences Research*, 6, 38-56.
- Rubinstein H. (1978, Sept.-Oct.). Fashion, Beauty and the Feminist. *The Freewoman*, pag.1.
- 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.
- Sengupta, J., & Dahl, D. W. (2008). Gender-related reactions to gratuitous sex appeals in advertising. *Journal of Consumer Psychology*, 18, 62-78.

- Stankiewicz, J. M., & Rosselli, F. (2008). Women as sex objects and victims in print advertisements. *Sex Roles, 58*, 579-589.
- Strelan, P., & Hargreaves, D. (2005). Women who objectified other women: The vicious circle of objectification? *Sex Roles, 52*, 707-712.
- Strelan, P., Mehaffey, S. J., & Tiggemann, M. (2003). Self-objectification and esteem in young women: The mediating role of reason for exercise. *Sex Roles, 48*, 89-95.
- Stroop, J. R. (1935b). Studies of interference in serial verbal reactions. *Journal of Experimental Psychology, 18*, 643-662.
- Swami, V., Coles, R., Wyrozumska, K., Wilson, E., Salem, N., and Furnham, A. (2010). Oppressive beliefs at play: Associations among beauty ideals and practices and individual differences in sexism, objectification of others, and media exposure. *Psychology of women Quarterly, 34*, 365-379.
- Trampe, D., Siero, F. W., & Stapel, D. A. (2007). On models and vases: Body Dissatisfaction and proneness to social comparison effects. *Journal of Personality and Social Psychology, 92*, 106-118.
- Vaes, J., Paladino, M. P., Puvia, E. (2010). *Are sexualized females complete human beings? Why males and females dehumanize sexually objectified women*. Manuscript submitted for publication.
- Watson, D., Clark, L. A., & Tellegen, A. (1988). Development and validation of brief measures of positive and negative affect: The PANAS scales. *Journal of Personality and Social Psychology, 54*, 1063-1070.
- Waytz, A., Gray, K., Epley, N., & Wegner, D. M. (in press). Causes and consequences of mind perception. *Trends in Cognitive Sciences*. doi:10.1016/j.tics.2010.05.006.
- Yzerbyt, V., Dumont, M., Wigboldus, D., & Gordijn, E. (2003). I feel for us: The impact of categorization and identification on emotions and action tendencies. *British Journal of Social Psychology, 42*, 533-549.