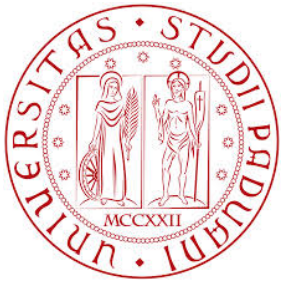

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Department of Developmental and Socialization Psychology

DOCTORAL SCHOOL IN PSYCHOLOGICAL SCIENCES

XXVIII CYCLE

How Sexual Objectification Affects Women: Self-objectification, Cognitive Performance and Collective Action

School Director: Professor Francesca Peressotti

Supervisor: Professor Maria Rosaria Cadinu

Doctoral student: Francesca Guizzo

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Contents

English Summary

Sexual objectification occurs whenever a person is treated like a sexual object, reduced to a body (or sexual body parts) and used for the pleasure and consumption of others (Bartky, 1980; Fredrickson & Roberts, 1997). According to Objectification Theory (Fredrickson & Roberts, 1997) women are the main targets of sexual objectification, which is mainly associated with the male objectifying gaze in two contexts: the exposure to sexually objectifying mass media (e.g. television, movies, magazines, advertisements in which women are depicted as sexual objects) and during social interactions. According to the objectification theoretical framework, sexually objectifying experiences are not devoid from important negative effects on women's psychological well-being. Indeed, the theory proposed that the first direct consequence of sexually objectifying experiences is self-objectification, which leads women to internalize the objectifying observer's perspective on the physical self, thus reducing the self to an object (Bartky, 1980; Fredrickson & Roberts, 1997). In turn self-objectification has been linked to increased body shame, appearance anxiety, and proclivity to eating, depression, and sexual disorders (Moradi & Hefflick, 2008).

We started our work noticing that, although sexually objectifying experiences are the precursors of self-objectification and its subsequent adverse outcomes on women, very few researchers have actually tested this causal chain by directly manipulating the exposure to sexually objectifying experiences. Therefore, the general aim of the present work was to contribute to the objectification theoretical framework by testing the causal role of sexually objectifying experiences on women's psychological, cognitive and social responses. Therefore, in Chapter 1 we will present a brief introduction and review of previous research conducted within the objectification theoretical framework.

In Chapter 2, we will present a set of three studies that have investigated the effects of the objectifying male gaze experienced in interpersonal encounters and the exposure to sexually objectifying visual media on women's psychological outcomes and cognitive performance. In particular we aimed at overcoming possible limitations in the interpretation of previous research that have studied cognitive performance (i.e. Stereotype Threat); taking into account important moderators (i.e. Internalization of sociocultural beauty standards, Social appearance anxiety), we will provide evidence that supports the notion that the exposure to sexually objectifying experiences indeed affects women's cognitive resources. In addition, we will also investigate possible mechanisms (i.e. Task Intrusive Thoughts, Flow experience) underlying the decrements in performance. Finally, we will bring novel evidence that sexually objectifying experiences are causally linked with adverse psychological outcomes for women (i.e. self-objectification and body dissatisfaction). Our results generally supported the idea that sexually objectifying experiences are the causal precursor of both adverse psychological and cognitive outcomes for women and that important moderators of such causal chain should be taken into account.

In Chapter 3, we will present a final study that has investigated the effects of exposure to sexually objectifying television, as well as a reasoned critique of such media content, on gender collective action inclination and behavioral intentions to participate in activism. The results demonstrate, for the first time, that exposure to a reasoned critique of sexually objectifying television motivates women, but not men, to react and to participate in collective actions that aim at reducing such degrading TV portrayals. The results bring novel evidence that the promotion of a critical view of TV through, for example, sensitizing campaigns, might represent an effective intervention to promote social activism and contrast the sexual objectification vicious cycle.

Finally, in Chapter 4 in light of the objectification theoretical framework we will discuss the implications of the present findings and suggest future directions.

Riassunto Italiano

L'Oggettivazione Sessuale si verifica ogni volta che una persona è trattata come un oggetto sessuale, ridotta ad un corpo (o alle sue parti sessuali) e utilizzata per il piacere e il consumo altrui (Fredrickson & Roberts, 1997). Secondo la Teoria dell'Oggettivazione (Fredrickson & Roberts, 1997), le donne sono i target principali dell'oggettivazione sessuale, che è principalmente messa in atto attraverso lo sguardo oggettivante maschile soprattutto in due contesti: l'esposizione a mass media sessualmente oggettivanti (e.g. televisione, film, riviste, pubblicità) e durante le interazioni sociali. Secondo il modello teorico dell'oggettivazione, le esperienze sessualmente oggettivanti non sono prive di importanti effetti negativi sul benessere delle donne. La prima conseguenza diretta è l'Auto-Oggettivazione, che porta le donne ad interiorizzare la prospettiva dell'osservatore oggettivante sul sé fisico, riducendo così il sé ad un oggetto (Bartky, 1980; Fredrickson & Roberts, 1997). L'auto-oggettivazione è stata a sua volta collegata all'aumento di vergogna per il proprio corpo, all'ansia legata all'apparenza e all'insorgenza di disordini alimentari, depressivi e sessuali (Moradi e Hefflick, 2008). Partendo da questo quadro teorico, nella presente dissertazione ho focalizzato l'attenzione sulle conseguenze delle esperienze sessualmente oggettivanti sull'auto-oggettivazione delle donne, sulle loro prestazioni cognitive e sulla loro volontà di partecipare ad attivismo sociale. Pertanto, nel primo capitolo presenterò una breve rassegna dei precedenti lavori che hanno indagato il processo di oggettivazione sessuale e i suoi effetti.

Abbiamo iniziato il nostro lavoro notando che, sebbene le esperienze oggettivanti sessualmente siano il precursore dell'auto-oggettivazione e dei suoi successivi risultati negativi sul benessere delle donne, pochissime ricerche hanno effettivamente verificato questa catena causale manipolando direttamente l'esposizione a esperienze sessualmente oggettivanti. Pertanto, l'obiettivo generale del presente lavoro tesi è stato quello di espandere ulteriormente il quadro

teorico dell'oggettivazione testando la catena causale tra le esperienze sessualmente oggettivanti e le risposte psicologiche, cognitive e sociali delle donne. Pertanto, nel Capitolo 1 presenteremo una breve introduzione e rassegna delle precedenti ricerche condotte all'interno del quadro teorico dell'oggettivazione.

Nel capitolo 2, presenteremo una serie di tre studi che hanno indagato gli effetti dello sguardo maschile oggettivante vissuto in interazioni interpersonali, nonché l'esposizione a media sessualmente oggettivanti sugli esiti psicologici e le prestazioni cognitive delle donne. In particolare, si è cercato di superare i possibili limiti interpretativi delle precedenti ricerche che hanno studiato le prestazioni cognitive (i.e. Stereotype Threat) e, tenendo conto di importanti moderatori (i.e. Internalizzazione del canone di bellezza socio-culturale, Ansia sociale legata all'apparenza), offriremo evidenze a sostegno dell'idea che l'esposizione ad esperienze sessualmente oggettivanti di fatto diminuisce le risorse cognitive delle donne. Inoltre, approfondiremo possibili meccanismi (i.e. Pensieri intrusivi durante il compito, Esperienza di flusso) che stanno alla base dei decrementi della prestazione. Infine, forniremo nuove dimostrazioni del fatto che esperienze sessualmente oggettivanti causano conseguenze psicologiche negative per le donne (i.e. Auto-oggettivazione e Insoddisfazione per il proprio corpo). Più in generale, i risultati sostengono l'idea che le esperienze sessualmente oggettivanti sono il precursore causale di conseguenze sia psicologiche che cognitive sfavorevoli per le donne e che importanti moderatori di tale catena causale devono essere presi in considerazione.

Nel Capitolo 3, presenterò un quarto studio che ha indagato gli effetti dell'esposizione alla televisione sessualmente oggettivante, e di una critica ragionata di tali contenuti multimediali, sulla propensione alle azioni collettive e sulle intenzioni comportamentali a partecipare all'attivismo sociale. I risultati dimostrano, per la prima volta, che l'esposizione a una critica ragionata alla televisione sessualmente oggettivante motiva le donne, ma non gli uomini, a reagire e a partecipare ad azioni collettive finalizzate a ridurre le rappresentazioni femminili

degradanti della TV. I risultati suggeriscono che la promozione di una visione critica della TV attraverso, per esempio, campagne di sensibilizzazione, potrebbe rappresentare un intervento efficace per promuovere un comportamento di protesta per contrastare il circolo vizioso dell'oggettivazione sessuale.

Infine, nel Capitolo 4, alla luce del quadro teorico dell'oggettivazione, si discuteranno le implicazioni dei risultati trovati e le direzioni di ricerca future.

Chapter 1- General Introduction

Philosophical and Psychological roots of Sexual Objectification

Social Psychology has been only recently been interested to the notion of objectification even though its conceptualization has a long history in philosophy. Indeed, the first who introduced the concept of objectification was Kant (1785, 1963) who described it as the phenomenon by which a person is reduced to the status of an object and treated like an instrument to achieve an end, denied of dignity, which he considered as the quality that distinguishes humans from objects and animals. In a similar vein, Marx (1964) has argued that, under the capitalism umbrella, workers are most often valued solely on the basis of their skills and productiveness whereas the qualities that make them human (such as kindness and morality) are devalued in the eyes of their employers.

Developing this concept further, Nussbaum (1995) posited that the objectification process is defined by the properties of *instrumentality* (to treat a person as a tool for one's purpose), *denial of autonomy* (the person lacks self-determination), *inertness* (the person lacks agency), *fungibility* (the person is interchangeable with other objects), *violability* (the person can be broken up because lacks in boundary integrity), *ownership* (the person can be bought or sold), and *denial of subjectivity* (person's feelings and experiences are denied). Therefore, whenever one or more of these properties are applied to a person, this person is objectified. Additionally, together with other philosophers and feminist thinkers (Bartky, 1990; Dwrorking, 1997; MacKinnon 1993; Young, 1990), Nussbaum (1995, 1999) observed that, even if the objectification process might affect any individual, women are more often the targets of such treatment.

In line with this argument, Bartky (1990) noticed that women, more than men, are identified with their physical appearance and often evaluated solely on the basis of how they look. She, indeed, suggested that this is the root of sexual objectification. Taking the concept of *fragmentation* first introduced by Marx (1964) in describing the workers' objectification in the capitalistic society, Bartky (1990) argues that women's sexual objectification is indeed a *fragmentation* process: women's body or sexual body parts and functions are separated from their personhood and they become mere instruments that exist for the use and pleasure of others (Bartky, 1990). In other words, when women are objectified, they are treated as sexual objects deprived of individuality and personality, as if their body (or sexual body parts) could represent their entire person (Bartky, 1990; Fredrickson & Roberts, 1997).

Taking this definition into account, more recently Langton (2008) has extended Nussbaum's objectification properties (1995) adding other three important features that occur whenever sexual objectification is perpetrated, namely *reduction to body* (the person is identified with the body or body parts), *reduction to appearance* (the person is evaluated primarily in terms of how (s)he appears) and *silencing* (the person lacking the ability to speak). Altogether, sexual objectification might be seen as a form of reduction to body that occurs whenever women are fragmented into a collection of sexual body parts or functions, considered as silent decorations and evaluated solely on the basis of their appearance whereas their personalities and other qualities (that distinguish them from objects) are devaluated, id est they become sexual objects.

Starting from these philosophical roots, social psychologists have only recently started to study the process of sexual objectification. In line with what has been suggested by feminist scholars, it has been indeed shown that sexualized women (i.e. scantily dressed), but not sexualized men, seem to be visually processed in piecemeal ways, resembling the recognition of objects (e.g., Bernard, Gervais, Allen, Campomizzi, & Klein, 2012; Bernard, Gervais, Allen, Campomizzi, & Klein, 2015; Gervais, Vescio, Forster, Maass & Suitner, 2012). Likewise, when

participants are prompted to focus on a woman's appearance (compared to a man's appearance), they attribute to her less competence, warmth and morality, and attributes that are thought to differentiate humans from objects (Heflick & Goldenberg, 2009; Heflick, Goldenberg, Cooper, & Puvia, 2011). Moreover, sexualized women (vs. non-sexualized) are attributed less mind and moral status (Loughnan, Haslam, Murnane, Vaes, Reynolds, & Suitner, 2010), less agency (e.g. Cikara, Eberhart, & Fiske, 2010; Gray, Knobe, Sheskin, Bloom, & Barrett, 2011), and they are also more quickly associated with animal than human attributes (Vaes, Paladino, & Puvia, 2011). From a neural point of view, it has also been shown that sexualized female targets are associated with neural pattern activation that are consistent with object-like viewing, especially by men who are high in hostile sexism (Cikara, Eberhart, & Fiske, 2010). Taken together, these studies indeed support the notion that sexual objectification is not only a philosophical construct but it is also a psychological process that affects how women are cognitively and morally perceived. It should be noticed that in most of the studies (e.g. Bernard et al., 2012; Gervais, et al., 2012; Heflick et al., 2011), participants' gender was not a significant factor, suggesting that both men and women put in place female sexual objectification . In sum, sexual objectification has been demonstrated to fundamentally change the social perception and moral treatment of women.

Objectification Theory

How Sexual Objectification is perpetrated

The negative consequences of sexual objectification are not limited to the way in which people perceive women, but also to how women perceive themselves. Objectification Theory (Fredrickson & Roberts, 1997) represents a significant advancement in the study of the psychological consequences of women' sexual objectification. It shares with feminist scholars (e.g. Bartky 1990; Nussbaum, 1995; de Beauvoir, 1952/1989) the idea that sexual objectification permeates women's life especially in western societies, where the physical appearance is massively emphasized (Fredrickson & Roberts, 1997). For example, to be ogled, receive

comments on one's appearance, or even suffer more severe experiences of sexual harassment are common situations that most western women have come across. In order to understand the phenomenon and its consequences on women's well being, the starting point of the Objectification Theory is the analysis of how sexual objectification is perpetrated. Indeed, Fredrickson and Roberts (1997) proposed that perhaps the most powerful way in which women are sexually objectified is the sexually objectifying gaze (i.e. visual inspection of the body) because it subtly conveys women the message that they are being evaluated on the basis of their body appearance.

The theory also proposed that interpersonal encounters and visual media (Fredrickson & Roberts, 1997) are the two main contexts in which the sexually objectifying gaze is played out. Indeed, many studies have demonstrated that women across all ages report to experience sexually objectifying interactions and to receive objectifying gazes almost on a daily basis (e.g. Hill & Fischer 2008; Klonoff & Landrine 1995; Kozee, Tylka, Augustus-Horvath, & Denchik, 2007; Moradi, Dirks, & Mateson, 2005; Murnen & Smolak 2000; Swim, Hyers, Cohen, & Ferguson, 2001). Moreover, women report such sexually objectifying interactions (e.g. having the body gazed, receiving catcalls and receiving unwanted sexual advances) to a greater extent than what men do (Hall, 1984; Swim et al., 2001).

Mass media are also permeated with sexual objectification. One just needs to have a look at a magazine or a TV program to realize that women's bodies and body appearance are constantly emphasized, therefore subtly aligning the viewers with a sexually objectifying gaze. We are more or less accustomed to be constantly exposed to media images of undressed bodies, often framed in sexy and provocative positions that seem to have the only purpose to increase audience and consumers. Men are not excluded from such treatment; however, content analyses have, indeed, shown that women are more likely than men to be depicted in sexually objectifying ways, for instance in advertisement, magazines, films, television and music video (e.g., Archer,

Iritani, Kimes, & Barrios, 1983; Aubrey & Frisby, 2011; Conley & Ramsey, 2011; Fouts & Burggraf, 2000; Hatton & Trautner, 2011; Smith, Choueiti, Scofield, & Pieper, 2013; Vandenbosch, Vervloessem, & Eggermont, 2013). Altogether this evidence demonstrates that, in general, women and girls are most frequently the targets of sexual objectification during both interpersonal encounters with familiar people or strangers, and in visual medias.

From Sexual Objectification to Self-Objectification

Fredrickson and Roberts (1997) further proposed that living in a context in which the female body is constantly gazed and scrutinized and in which society reinforced the value of physical appearance over other qualities could not be devoid of consequences for women that live in it. They, indeed, proposed that the most negative consequence of such treatment is the tendency of women to self-objectify or, in other words, to value themselves as objects that exist only to be looked at and evaluated by others (Bartky, 1980; Fredrickson & Roberts, 1997). Being constantly subjected to sexually objectifying gazes during interpersonal interactions or in visual medias is, indeed, proposed to encourage women and girls to adopt the same observer's gaze on their selves, therefore assuming a third person perspective. Self-objectification, therefore, leads women to value themselves more in terms of how their body appears to others rather than for their qualities and individuality (Fredrickson & Roberts, 1997).

Fredrickson and Roberts (1997) further argued that the objectifying gaze that is interiorized by women is especially the male gaze. The theory claims that western cultures are based on a heterosexual framework (Fredrickson and Roberts, 1997), which "measures women's value in relation to their fulfillment of the role of sex object for men" (Calogero, 2013, p. 99). As discussed, there is some empirical evidence that women also objectify other women (e.g. Strelan & Hargreaves, 2005), but, as also highlighted by Calogero (2013), the theory posits that women doing so are taking the male gaze perspective because this is what they are socialized to do. In addition, even if very little is known about it, it has been demonstrated that the male gaze have

greater impact on women's body concerns and might have a greater deceptive impact on self-objectification process than the female gaze (Calogero, 2004; Calogero, 2013; Saguy, Quinn, Dovidio, & Pratto, 2010).

To summarize, Objectification Theory proposes that an important repercussion of being repeatedly valued on the sole basis of physical appearance standards, which that are shaped on the cultural demands to be attractive to men, might induced people, and in particular women, over time, to internalize such observer's perspective on the self, a process that the scholars have named self-objectification (Fredrickson & Roberts, 1997). Self-objectification has been conceptualized as both as a trait disposition to chronically view oneself as an object, or a situational state that could be triggered by a sexually objectifying situation, such as noticing someone leering to one's breast, or receiving comments on one's body. Moreover, self-objectification has been typically operationalized as the difference between perceived importance of body appearance over body competence (Self-Objectification Questionnaire, SOQ, Fredrickson et al., 1998) or as the manifestation of body surveillance, that is the act of "habitual monitoring of the body's outward appearance" (Fredrickson & Roberts, 1997, p.180). Body surveillance has been measured with the Objectified Body Consciousness scale, OBCs, McKinley & Hyde, 1996). As pointed out by Moradi and Huang (2008) in a recent review, body-surveillance seems to explain further the relation between self-objectification and its postulated consequences.

We will now discuss the negative consequences of self-objectification. As discussed below, whether in its trait form, or in a situational state triggered by contextual objectifying experiences, self-objectification has been indeed proposed to predict several adverse outcomes for women's psychological and cognitive well-being (Fredrickson & Roberts, 1997).

Consequences of Self-Objectification

Objectification Theory has conceptualized self-objectification as the major conjunctive mechanism between women's sexual objectification experiences at the cultural level and their psychological well-being. It is worth pointing out that, even if men's sexual objectification especially on visual media is increasing thus leading men to increase body concerns (e.g. Aubrey, 2006; Daniel & Bridges, 2010; Moradi & Huang, 2008 for a review), women and girls have been shown to suffer a disproportionate amount of negative consequences. An extensive literature has demonstrated the many consequences of self-objectification on women's psychological well-being and important published reviews are already available (Calogero, Tantleff-Dunn, & Thompson, 2011; Moradi & Huang, 2008; Tiggemann, 2011). Therefore, we will now limit ourselves to report the major links that have been tested.

Originally Fredrickson & Roberts (1997) have proposed that self-objectification, manifested as body surveillance, directly would promotes a wide range of negative outcome, namely increased body shame (i.e. one's appearance failed to meet the internalized cultural standard), increased appearance anxiety (i.e. anticipation of the fear of having the body evaluated), decreased peak motivational state (or flow experience, i.e. rare moments of complete immersion on a task, associated with joy and pleasure), and decreased awareness of internal bodily states (i.e. ability to detect ones internal physiological sensation, e.g. hunger, fatigue, emotions, physical sensations). In turn, such a chain of psychological states has ripple effects by increasing women's risk for eating disorder, depressive mood and sexual dysfunction (Fredrickson & Roberts, 1997). The proposed chains have been tested both in correlational and in experimental studies. However, it should be noticed that in the wide majority of the experimental studies, self-objectification has been triggered using an appearance pressure manipulation, in which women have to try on a swimsuit (i.e. high self-objectification condition) or a sweater (i.e. control condition) in front of a full-length mirror. Experimental and

correlational evidence strongly supports the link between self-objectification, body shame, and appearance anxiety (e.g. Calogero, 2004; Fredrickson et al., 1998; Quinn, Kallen & Cathey, 2006; Roberts & Gettmann, 2004) and also supported the mediating role of body shame and appearance anxiety on the three mental health outcomes, namely depressive mood, eating disorder and sexual dysfunction (e.g. Greenleaf & McGreer, 2006; Muehlenkamp, Swanson, & Brausch, 2005; Szymanski & Henning, 2007; Tiggemann & Kuring, 2004). Furthermore, correlational data support the relation between self-objectification and internal bodily state, flow experience and the predicted mental health outcomes (e.g. Calogero, Davis, Thompson, 2005; Daubenmier, 2005; Calogero & Thompson 2009; Grabe, Hyde, & Lindberg, 2007; Greenleaf, 2005; Steer & Tiggemann 2008; Tiggemann & Kuring, 2004; Tylka and Sabik 2010). In contrast, the hypothesized mediating roles of flow experience and awareness of internal bodily state between self-objectification and the mental health outcomes have not been completely supported (e.g. Tiggeman & Kuring, 2004, see Moradi & Huang, 2008 for related discussion).

Overall, self-objectification has been demonstrated among women and girls to promote eating disorders, depressive mood and sexual dysfunctions by (a) directly raising the levels of body shame and anxiety (b) reducing the awareness of body's sensations and feelings (c) impeding peak motivational states that are connected to pleasant activities. Figure 1 summarized the key relations proposed by the objectification framework.

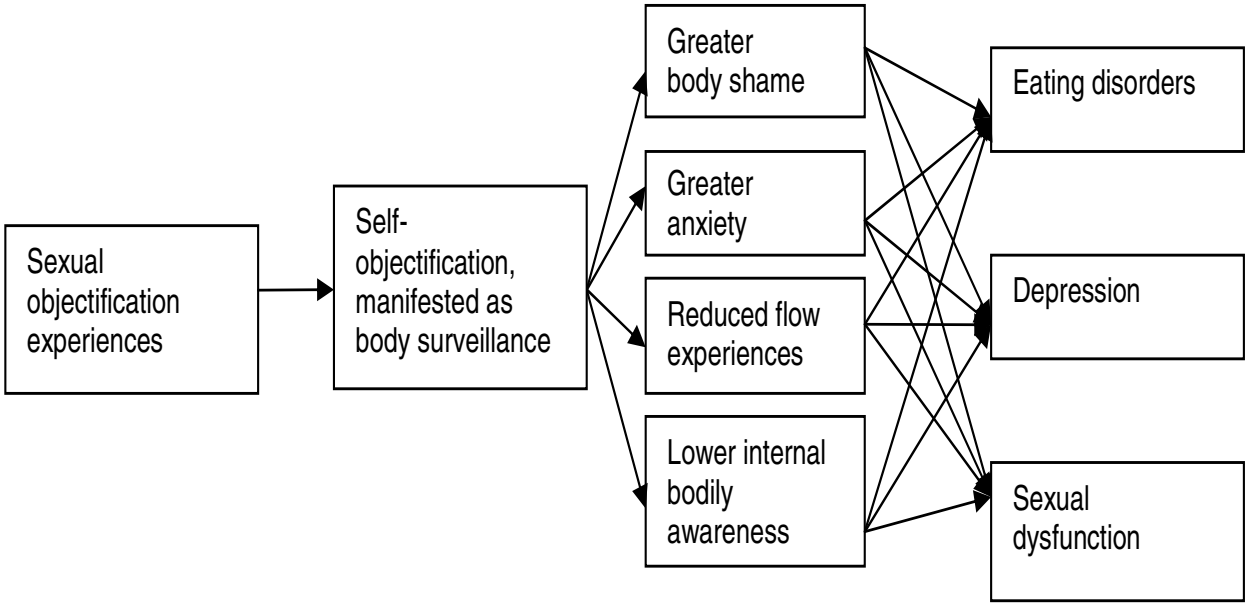


Figure 1. *Objectification Theory framework (from Moradi & Huang, 2008)*

Besides the original psychological chain predicted by the Objectification framework reported above, self-objectification has been found to be related to other several negative outcomes such as decrease cognitive performance (e.g. Fredrickson, Roberts, Noll, Quinn, & Twenge, 1998; see Chapter 2 for a review and our detailed work), increase support for cosmetic surgery (e.g. Vaughan-Turnbull, & Lewis, 2015), increase menstrual shame and risky sexual behaviors (e.g. Hirscham, Impett, & Schooler, 2006; Impett, Schooler, & Tolman, 2006), increase breast-feeding embarrassment (e.g. Johnston-Robledo & Fred, 2007), decrease intrinsic motivation and self-efficacy (e.g. Gapinski, Brownell, LaFrance, 2003), lead to lower body esteem and self-esteem (e.g. Strelan, Mehaffey, & Tiggman, 2003), increase dehumanization of other sexualized women (Puvia & Vaes, 2013), increase substance abuse (e.g. Carr & Szymanski, 2010), and increase perceived risk and fear of rape (Farchild & Rudman, 2008). Figure 1 summarizes the main relations examined under the objectification theoretical framework.

As highlighted above, in the Objectification theoretical framework (Figure 1), sexually objectifying experiences are, indeed, the central precursors of self-objectification and subsequent psychological chain effects. Even if, as pointed out in a review of the objectification literature

(Moradi & Huang, 2008), most research available, is either correlational or has manipulated self-objectification and assessed the subsequent psychological outcomes without considering the precursors, some evidence is also available regarding the effects of sexually objectifying visual media. The exposure to sexualized media have, indeed, been linked to increased self-objectification, body shame and appearance anxiety as well as negative body emotions and eating disorders among both women and girls (e.g. Abramson & Valene, 1991; Aubrey, 2006, Aubrey, 2007; Grabe & Hyde, 2009; Grabe, Ward &, Hyde, 2008; Hargreaves & Tiggemann, 2004; Holmstrom, 2004).

Moreover, a growing body of researches has shown that the internalization of the sociocultural standard of beauty may play an important role in the relation between sexually objectifying experiences, self-objectification and their consequences. Researchers have, for instance, demonstrated that internalization of the beauty ideal mediates the relation between consumption of sexually objectifying media, self-objectification, and body surveillance (Vandenbosch, & Eggermont, 2012). Moreover, internalization also mediates the relation between sexual objectification experiences and body surveillance, body shame and eating disorders (Moradi, Dirks, & Matteson, 2005). These results are consistent with the original idea by Fredrickson and Roberts (1997) that Western cultures pressure women to internalize culturally shared beauty standards that will be used to measure themselves resulting in self-objectification and body surveillance.

In addition, regarding women's sexually objectifying interpersonal encounters, daily diary studies have demonstrated that women report to be frequently the target of degrading comments and sexually objectifying behaviors (Swim et al., 2001). Researchers have also shown that self-report measures of sexually objectifying interactions are associated with greater trait self-objectification as well as habitual body monitoring and shame among both heterosexuals and homosexuals women (Hill & Fisher, 2008; Kozee et al., 2007; Kozee & Tylka, 2006; Moradi

et al., 2005). It has also been demonstrated that the anticipation of receiving a male gaze during an interpersonal interaction increases women body shame and appearance anxiety (Calogero, 2004) and that the recall of a sexually objectifying experience disrupted women's willingness to participate in social activism (Calogero, 2013).

Even though sexually objectifying male gaze is the central promoter of sexual objectification, very few studies are available that have directly manipulated exposure to sexually objectifying gazes and tested their causal role on self-objectification and other outcomes (Gervais et al., 2011; Gay & Castano, 2010). As a case in point, Moradi and Huang (2008) in their recent review of objectification literature have highlighted that it would be important to further test the effects of both sexually objectifying media and actual interpersonal encounters in order to extend our knowledge on the objectification process.

Overview of the present work

From this brief review of the literature emerged that extensive work has been done testing the chain between self-objectification and adverse psychological and mental health outcomes. Far less research is available that has actually manipulated the precursors of self-objectification, namely sexually objectifying experiences in the form of exposure to sexually objectifying media or sexually objectifying gazes in actual interpersonal encounters.

Therefore the first aim of the present work was to further study the effects of sexual objectification on women's psychological and cognitive outcomes. We thus decided to experimentally manipulate sexual objectification by exposing women to sexually objectifying gazes in actual interpersonal interactions (Chapter 2, Study 1 & Study 2) and test their effects on both cognitive and psychological outcomes. Moreover consistent with Objectification 's predictions that self objectification is promoted by both sexually objectifying mass media and by interpersonal experiences, which are together responsible for creating a cultural environment that promotes the objectification of the female body, we also explored the joint effects of media and

sexually objectifying gaze in interpersonal interactions on women's cognitive and psychological responses (Chapter 2, Study 3)

The second aim of the present work was to further extend the literature regarding the link between self-objectification and cognitive performance. The review of the literature that we will be presented in Chapter 2 shows that most research available is vulnerable to alternative explanations (i.e. Stereotype Threat) and, most importantly, no knowledge is available regarding the mechanisms that underlie the cognitive decrement. Thus, in Chapter 2 we will present three studies that have systematically tested the effects of sexually objectifying experiences on cognitive resources (adopting a gender neutral test) by also exploring the effects of self-objectification, intrusive thoughts and flow experience as possible mechanisms. We will also take into account the role of the internalization of the sociocultural standards of beauty and chronic appearance anxiety as potential moderators of sexual objectification effects.

Finally, in Chapter 3 we will explore a possible intervention that might help break the vicious cycle of sexual objectification in particular in the visual media context. We started our investigation noticing that most research available has predominantly investigated the effects of exposure to sexually objectifying media on body image concern outcomes (e.g. Aubrey, 2006; see Grabe, Ward & Hyde, 2008 for a review), but no research has examined its effects, for example, on people's willingness to react against such sexually objectifying portrayals. Secondly, we noticed that among the intervention strategies proposed to help women resist sexual objectification and self-objectification, there is indeed the promotion of a critical view of mass media depiction of women (e.g. Tylka & Augustus-Horvath, 2011). Putting these two considerations together, in Chapter 3 we will present a study in which we tested the effect of exposure to sexually objectifying television portrayals of women as well as the effect of a reasoned critique of such degrading depictions on women's and men's willingness to react and

actively protest to improve the female image in media, thus helping break the vicious cycle of sexual objectification.

Chapter 2 – The causal chain between sexually objectifying experiences and cognitive and psychological outcomes.

As already introduced above, even though sexually objectifying experiences are thought to be the precursors of self-objectification and its psychological consequences, very few studies have investigated the causal chain between women's experiences of sexual objectification and their psychological and cognitive responses (see Moradi & Huang, 2008 for a review). According to Objectification Theory (Fredrickson & Roberts, 1997) sexual objectification mainly occurs in two contexts: through mass media and directly during interpersonal interactions. Importantly, the privileged way in which sexual objectification is conveyed is through the objectifying gaze (i.e. inspection of the body by another person), which for heterosexual women is represented by the male gaze. Of our particular interest, even though the context was not with real interactions, is the study by Calogero (2004), which has demonstrated that the mere anticipation of a male gaze increases body anxiety and shame among women.

Despite the interesting results by Calogero (2004), to our best knowledge only two studies have manipulated the objectifying male gaze in real interpersonal interactions (Gay & Castano, 2010; Gervais, Vescio, & Allen, 2011). The results showed that women underperformed on demanding tasks, but no other psychological outcome was investigated (Gay & Castano, 2010) or found to be affected by the sexually objectifying male gaze (Gervais et al., 2011). Moreover, as it will be exposed in the next section, the results on the cognitive tests suffer from some limitations. Therefore, in Chapter 2, we will present three studies that attempt to overcome these possible limitations, which have systematically manipulated sexually objectifying experiences, specifically the sexually objectifying male gaze in actual interaction settings, and tested its consequences on both psychological (Self-objectification manifested as

body surveillance and Body dissatisfaction) and cognitive (Attentional and working memory) responses. Furthermore, we investigated possible mechanisms that underlie the decrements in cognitive performances. In the next session we will present a brief review of the findings on the relation between self-objectification and cognitive performances.

Self-objectification and cognitive performance

In their first theorization of the Objectification Theory, Fredrickson and Roberts (1997) have posited that the activation of a state of self-objectification might decrease flow experience (or in other words peak motivational states), that is defined as the experience of complete immersion and absorption on a demanding mental or physical task that is also associated with enjoyment and creativity; Fredrickson & Roberts, 1997). They posited that such decrease would occur because women are taking an external perspective on the self, in particular on their body, and therefore are partially allocating their attention on being an object to be looked at and evaluated, thus hindering the possibility of achieving a total engagement in the task. For the same reasons, in early work by Fredrickson and colleagues (Fredrickson et al., 1998) the activation of a state of self-objectification was also predicted to disrupt mental resources and to diminish cognitive performance on a subsequent demanding test. The researchers actually manipulated self-objectification strengthening the appearance pressure by having participants wear a swimsuit vs. a sweater in front of a mirror and subsequently perform a math test. As expected, results showed that female, but not male participants, underperformed in the math test in the self-objectification condition (i.e. Swimsuit condition) compared to the control condition (i.e. Sweater condition; Fredrickson et al., 1998).

Similar results were found by Gervais and colleagues (2011), adopting a different manipulation: female participants performed worse than male participants on a math test when receiving a sexually objectifying gaze (Gervais et al., 2011). Importantly, as highlighted above,

in the study by Gervais and colleagues (2011) the hypotheses were tested in the context of actual interpersonal interactions; however, as also noticed by the authors, an alternative explanation for such results could be Stereotype Threat. Indeed the performance decrements demonstrated by both Gervais and colleagues (2011) and Fredrickson and collaborators (1998) could also be explained by the activation of the specific negative stereotype that depicts women as less capable of men in the mathematical domain (i.e. Stereotype Threat, Steele & Aronson, 1995). In order to rule out this alternative explanation, Quinn and colleagues (2006) conducted a study using a non-stereotypical task such as the Stroop task (Quinn, Kallen, Twenge, & Fredrickson 2006). As in previous studies, they also induced a self-objectification state by stressing the appearance focus with the swimsuit vs. sweater manipulation and found that, controlling for participants ethnicity, women wearing a swimsuit showed longer reaction times that those wearing the sweater. In addition, Gapinski and colleagues (Gapinski, Brownell and LaFrance, 2003) used the same manipulation with a small sample of women and showed that "fat comments" regarding the garments (either the sweater or the swimsuit) led to a tendency to decrease female performance on a logical reasoning test, but only for participants with high trait self-objectification. Unfortunately due to lack of statistical power, no strong conclusions can be drawn from this last study. In addition, using a more subtle manipulation of sexual objectification, Tiggemann and Boundy (2008) failed to replicate this finding.

Although the results above are overall important because they confirm that a state of self-objectification (i.e. looking at oneself in the mirror wearing a swimsuit) could diminish attention resources un-confounded with Stereotype Threat, they do not provide any insight on which factors do lead to such performance decrement. Furthermore, one could argue that the manipulation used in these experiments is not very ecological because it does not represent at all a common situation in which women may experience self-objectification while taking a cognitive test. Therefore, in the present we employed more ecological manipulations (i.e.

experience of sexually objectifying gaze in interpersonal interaction setting or exposure to sexually objectifying images) and, most importantly, we investigated some potential mechanisms that could underlie performance decrements under self-objectification.

Following the promising results by Calogero (2004) and overcoming the possible confound with Stereotype Threat that emerged in Gervais and s (2011), Gay and Castano (2010) manipulated the objectifying gaze by having participants walk down a hallway while being filmed by a male experimenter (High Objectification condition) or a female experimenter (Low Objectification condition), and later perform on a working memory task (LN sequencing task). Although the results by Gay and Castano were not statistically strong, they showed that participants in the high objectification condition had longer reaction times compared to those in the low objectification condition, but only if they were participants with high levels of Trait Self-Objectification (TSO) *and* if they performed a task with a high level of difficulty. Furthermore, these researchers tested the role of self-esteem and anxiety, but no effects of such measures was found neither as a dependent variables nor as mediators between condition and performance.

To summarize, to the best of our knowledge, to this date, only few studies have investigated the effects of state self-objectification on cognitive performance in gender-neutral tasks (i.e. not possibly affected by the activation of gender-relevant stereotypes such as "women and math", as shown by research on Stereotype Threat). Of these few studies, only one, which investigated the effects of state self-objectification on gender-neutral cognitive tasks, took place in a context of real interpersonal interactions (Gay & Castano, 2011). However, even more important, to the best of our knowledge, no research has investigated any possible mechanism that could underlie such performance decrements, and no evidence is available that demonstrates that the sexually objectifying gaze might also affect other psychological outcomes such as body surveillance and body dissatisfaction.

To fill this surprising gap in the literature, given that Objectification theory highlights the objectifying gaze as one of the sexual objectification triggers, the aim of the present line of research is to extend previous work by studying the detrimental effects of the objectifying gaze (experienced in interpersonal interaction settings or during exposition to sexually objectifying visual media) on women's psychological responses and on their cognitive resources in non-gender-stereotypical tasks by also investigating potential mechanisms underlying such decrements. Therefore, in the first two studies we manipulated both the Gender and the Type of gaze provided by the confederates who interacted with participants, and tested its consequences on participants' cognitive performance in a sustained attention to response task (i.e. SART, non gender-stereotypical or neutral task). Moreover, in Study 1 we investigated the role of Task Intrusive Thoughts as a possible mechanism underlying performance disruption. Additionally, Study 2 extended the results of Study 1 by also investigating the role of Flow experience during the task and, more importantly, by investigating the moderating role of both the experimenter's perceived attractiveness and the internalization of beauty ideals by participants. Finally Study 3 extended previous findings by investigating the joint role of the exposure to sexually objectifying gaze in interpersonal interaction settings and exposure to sexually objectifying media on women's cognitive resources, also taking into account the moderating role of social appearance anxiety.

Study 1

The aim of the first study was to investigate the detrimental effects of the objectifying gaze on women's attention resources. More specifically, we had hypothesized that, in line with the objectification theoretical framework, women receiving a male objectifying gaze focusing on the body would show higher levels of body surveillance and shame (Hp1) and a decrease in performance on a sustained attention task (i.e. SART, gender neutral task) compared to participants who received a female gaze (Hp2). Moreover, we aimed to explore, for the first

time, the possible role of Task Intrusive Thoughts (TIT) on performance. Such hypothesis (Hp3a) is based on the assumption that when women experience an objectifying male gaze they would also show higher levels of intrusive thoughts during the task because their attention should be shifted back and forth between the body (i.e. body monitoring) and the performance itself, thus leading, in general, to more intrusive thoughts regarding both (a) the performance itself and also (b) task-unrelated thoughts, for example regarding their body and their appearance. Additionally, we hypothesized (Hp3b) that the increased amount of TIT would in turn predict a performance decrement, i.e. TIT would also play a mediating role. In line with Hp3a and Hp3b, previous research has shown that women tend to linger more on thoughts regarding the body when assigned to an objectifying condition (Quinn, Kallen, & Cathey, 2006). Similarly, Cadinu, Maass, Rosabianca & Kiesner (2005) demonstrated that the decreased performance of women under stereotype threat was mediated by negative intrusive thoughts. Given that previous studies showed the disruptive effect of self-objectification only for female participants, we also decided to focus on this gender group in this study.

Finally, previous research has shown that hormonal shifts during the menstrual cycle may play a role in the process of women's dehumanization, so that women tend to dehumanize other women more at increasing levels of fertility (which has its peak during the ovulatory phase; Piccoli, Foroni, & Carnaghi, 2013). In line with this result, we also explored the role of fertility level as a predictor of our DVs. In particular, we hypothesized that, in line with an evolutionary perspective, the higher the fertility level, the higher the effects of the sexual objectification manipulation, so that participants closer to the fertility peak would report higher levels of self-objectification (i.e. Body surveillance) and higher levels of body concerns as well as thoughts regarding their body (Hp4). To summarize the design of Study 1, to test the hypotheses outlined above we manipulated the experience of sexual objectification by having either a female or a

male experimenter take a picture of either the body (Body Focus) or an object in the room (Control).

Method

Participants. One hundred and fifty-nine female participants were recruited by one of four experimenters (2 male and 2 female) via web announcement on specific Facebook pages of the Psychology School, at different University libraries and study rooms, or among acquaintances. We also made sure that, in case that the recruiter personally knew the participant (e.g. acquaintance), the latter would be entrusted to another experimenter for the testing session. Participants' age ranged from 18 to 35 years old (M_{age} = 23.21 years, *SD* = 3.39 years). We decided to include this particular age range because, according to previous research, self-objectification, body concerns as well as eating disorder symptomatology decrease with age and especially after menopause (e.g. Fredrickson & Roberts 1997, Tiggemann & Lynch, 2001). The sample was thus composed of 126 University students (80%) and a remaining 33 participants of workers or unemployed (20%). All participants participated in the study voluntarily without monetary compensation. The experiment was run in a quiet laboratory at the University where participants completed the task individually. The procedure of the experiment and the main dependent variables were administered in the same order in which they are presented below.

Procedure. Participants were randomly assigned to interact with either a female (Female Gaze condition) or a male experimenter (Male Gaze condition). After being accompanied to the lab individually, participants were informed that they would be involved in two allegedly unrelated studies. In the first *separate* study, participants were randomly assigned to either a Body Focus condition, in which they were photographed by the experimenter from the neck down, twice from the front and twice from the back, or a control Neutral Focus condition, in which the experimenter took pictures of a neutral object in the room. The two conditions were associated with two different cover stories. In the Body Focus condition the experimenter

communicated that the goal of the study was to collect materials for a future study on impressions' formation and that the photos would be taken excluding the face for privacy reasons. After participants filled out the informed consent, the experimenter would proceed with the picture-taking and then administered a questionnaire allegedly related to the first study actually the Body Surveillance and Body Shame scales. On the contrary, in the Control condition's cover story the experimenter apologetically told participants that, before starting with the study, they needed to take some pictures of the computer because the technicians needed them for an extraordinary check-up and they had to be provided very quickly. After taking the pictures of the computer, participants filled out the same questionnaires as in the Body Focus condition (i.e. Body Surveillance and Body Shame scales). At this point, in both conditions, the experimenter briefly showed participants the pictures just taken with the alleged purpose of controlling their quality. After this phase participants were introduced to the allegedly separate second experiment that aimed at studying attention processes (cover story). Thus, a Sustained Attention to Response Task (SART) was administered via computer using Inquisit software (Version 4). Then, on the same computer (using a Survey Monkey online platform), participants filled out the Task Intrusive Thoughts scale, the demographics' scale and a questionnaire regarding the menstrual cycle. Afterwards, participants were fully debriefed and thanked for their participation. Finally, in order to fulfill the Ethical Board's requirements, after explaining the actual purpose of the study during a full debriefing, we also collected a second informed consent in which participants were asked to give their consent that the data could be used exclusively for scientific purposes. During the debriefing, no participant was found to be suspicious of either the manipulation or the two-experiments design.

Materials

Sexually Objectifying manipulation. As introduced above, we manipulated the experience of being sexually objectified by having participants interact either with one of two

male experimenter (Male Gaze) or with one of two female experimenter (Female Gaze) and either receiving a Body focus (photos of participants' body) or a Neutral focus (Photo of a neutral object). Therefore we had a 2 (Gender of the Gaze: Male vs Female) x2 (Type of focus: Body focus vs Neutral) between participant subject design. In the Body focus condition, all participants were instructed to stand behind a line on the floor with the back on the wall in a natural position. All experimenters were then instructed to take two photos of participant's body inclining the camera in a way that was evidently framing only the body from the neck down. Participants were then instructed to turn their back to the experimenter who in turn proceeded to take two other pictures of their body from the back. In the Neutral condition experimenters (see cover story above) took four pictures of the lab's computer from different angles. It should be noticed that all participants interacted with the experimenter (either male or female) for the entire duration of the experiment (around 30 min). All four experimenters were bachelor and master students or trainees in their early twenties and were thoroughly trained by the author.

Body Surveillance and Body shame. Body Surveillance (8 items, e.g. "I rarely think about how I look", reverse coded) and Body Shame (8 items, e.g. "I would be ashamed for people to know what I really weight") subscales were taken from the Objectified Body Consciousness scale (OBCs), developed and validated by McKinley and Hyde (1996). The OBCs was originally developed as a trait scale, and it is one of the most used scales to assess self-objectification (see Moradi & Huang, 2008, for a review of self-objectification measures). It assesses Body Surveillance, i.e. the chronic tendency to monitor the body as an external observer, and Body Shame, i.e. the feeling of embarrassment when one's body is perceived not to conform to internalized beauty's norms. Participants filled out a State version of the scale adapted from the original, translated in Italian by the author and back translated by her supervisor. Participants were instructed to think about themselves *in this precise moment* and to express their level of agreement on 7-point Likert scales that ranged from 1 (*strongly disagree*)

to 7 (*strongly agree*). Separate indices of both Body Surveillance (Cronbach's $\alpha = .74$) and Body Shame (Cronbach's $\alpha = .84$) were calculated by averaging the corresponding 8 items after appropriate reverse coding, so that higher indices reflect higher levels of Body Surveillance and Body Shame. (see Appendix for the scales)

Sustained Attention to Response Task (SART). In order to test our second hypothesis, participants performed the SART (Robertson, Manly, Andrade, Baddeley, & Yiend, 1997), a computer task developed to study sustained attention. The researchers define sustained attention "as the ability to self-sustain mindful, conscious processing of stimuli whose repetitive, non-arousing qualities would otherwise lead to habituation and distraction toward other stimuli" (Robertson et al., 1997, p. 747). The SART requires a high level of continuous attention to the stimuli and it is sensitive to temporary reduction in attention due to task intrusive thoughts that could be either conscious or unconscious (Robertson et al., 1997). Thus, the SART could be considered a kind of GO/NOGO task, in which participants have to withhold their responses to infrequent targets. Specifically, participants were presented with a single digit from 1 to 9 in the middle of the screen in varying font-sizes. They were asked to press the SPACEBAR if any digit other than 3 was presented, but withhold their response if the digit 3 appeared on the screen. Specifically, each digit was presented 25 times (225 trials total) for 250 ms and was followed by a mask of 900 ms (a circle with a diagonal cross). Thus, the time between the digit onset and subsequent digit onset was 1150 ms (digit SOA). The task was approximately 3 to 4 min long and participants saw a total of 225 digits, 25 of which representing NO-GO trials (target digit 3). The 25 NO-GO trials were distributed in a semi-random order throughout the 225 trials. The font-size of the digits was manipulated in order to increase the cognitive demands required to process the numerical digits by also avoiding that the digit target could be identified by just peripheral features. Thus the digits were randomly presented in one of five font-sizes (48, 72, 94, 100, 120 point, Arial font). The SART script (downloaded from the Millisecond Library) was

implemented using Inquisit Lab (version 4 by Millisecond software ltd.). The output automatically gave the following information: percentage of No-go success (percentage of correct suppression of the response to No-go trials), percentage of omissions (percentage of incorrect suppression in Go trials), mean of RTs (Reaction Times) to valid and correct Go trials (mean RT_Go), mean of RTs of the four GO trials preceding a *success* in suppressing the response to the No-Go trials (meanRTbeforeNO-GOsuccesss) and mean of RTs of the four GO trials preceding a *failure* to suppress the response to the No-Go trials (meanRTbeforeNO-GOfailure). It has been shown that, together with the percentage of No-go success, RTs preceding successful and unsuccessful No-Go trials are important indicators of attention failure (e.g. Robertson et al., 1997, Cheyne, Solman, Carriere, & Smilek, 2009). Specifically, RTs to Go trials preceding a No-Go failure tend to become faster (Robertson et al., 1997), and this is considered as an index of task disengagement (i.e. Mind-wandering, wandering thoughts). At the same time it has been shown that RTs preceding successful No-Go trials tend to slow down (Cheyen et al., 2009) and this is also considered as an index of fluctuation of attention as well. We predicted that participants' RTs would be influenced by the condition so that in the objectifying Male gaze and Body focus condition participants would show the worst performance, i.e. have faster RTs before failed No-go trials as well as slower RTs before No-Go successes, as compared to participants in the Female gaze and Neutral focus condition. We also predicted that participants in the Male objectifying gaze condition receiving a Body focus would be less successful withholding their responses to the No-go trials as compared to participants in the Female gaze and Neutral Focus condition.

Task Intrusive Thoughts. To test our hypotheses Hp3a and Hp3b, immediately after the SART, participants filled out a questionnaire regarding the thoughts they had while performing the SART. Following the dimensions identified by thought probes used in previous research (e.g. McVay, Kane, & Kwapil 2009), we asked participants how much they were thinking of the

following type of thoughts on a Likert scale from 1(*Not at all*) to 7(*Very much*): (a) Thoughts regarding the task itself (e.g. digit 3, Spacebar), (b) Thoughts regarding the performance (e.g. how is going the performance, number of errors), (c) Thoughts regarding everyday life (e.g. recent events), (d), Thoughts regarding internal bodily state (e.g. I'm hungry, I'm cold), (e), Thoughts regarding Body's appearance (e.g. to the physical aspect, how my body looks like from an external observer), (f), Personal worries (e.g. private fears), (g), Daydreaming (e.g. thoughts not related to the reality), or (h), to specify anything freely in case they had any other type of thoughts. Because previous work has demonstrated that women tend to have lingering thoughts regarding the body when they are in an objectifying condition (Quinn et al., 2006), we also added a novel dimension regarding thoughts about (e) Body's appearance (which is not included in the standard thought probing by McVay et al., 2009). Moreover, we decide follow the procedure by Smallwood and colleagues (Smallwood, Davies, Heim, Finnigam, Sudberry, O'Connor, & Obonsawin, 2004) and we administered the Task Intrusive Thoughts questionnaire immediately after the SART and not during the task itself (as for example in McVay et al., 2009), because it has been shown that thought probing during the task tends to subsequently increase the amount of errors by inducing participants to interrupt their attention flow and induce intrusive thoughts (Smallwood et al., 2004). We followed the classification by Smallwood and colleagues (2004), who have identified two overarching types of intrusive thoughts that could undermine attention resources defined as Task Related Interference thoughts (TRI) and Task Unrelated Thoughts (TUT). Whereas the former includes thoughts that concern the task itself as well as the preoccupation for the performance, the latter includes all thoughts that are directed to the self, but are completely unrelated to the task at hand. Therefore, we calculated the Task Related Interference thoughts Index (TRI) by averaging the responses to the two items about intrusive thoughts regarding the task itself and thoughts regarding the performance ($r = .26$, $p = .05$), so that higher scores correspond to higher levels of intrusive thoughts regarding the

preoccupation for the performance. As for Task Unrelated Thoughts, because of our specific manipulation, we decided to focus on intrusive thoughts regarding body's appearance and regarding internal bodily state. In line with Objectification Theory (Fredrickson & Roberts, 1997), we hypothesized that in the highly objectifying conditions (Male gaze and Body focus condition) the TRI would increase, whereas TUT would decrease. Moreover, we hypothesized that participants in the highly objectifying conditions (Male Gaze and Body focus condition) would also report higher levels of TRI in an attempt to redirect their attention to the task. Therefore, in the results section we will report these two types of thoughts.

Word stem completions. In order to further investigate the implicit accessibility of body-related thoughts, participants were presented with 7 word-stems and they were instructed to complete the stem with the first word that came to their mind. The stem could be completed with a body appearance related word (e.g. mouth, boobs, body) or with a neutral word (e.g. boat, roof). For example, the word stem B_ _ CA might be completed with the body related word BOCCA (mouth) or with a neutral word like BARCA (boat). All words stem were pretested to make sure that there had an equal probability to be filled with a body related word or with a neutral word. Using the Italian lexical database COLFIS (Bertinetto, Laudanna, Marconi et al., 2005) we also made sure that the frequency use of the body-related and neutral solutions were comparable. An index of body accessibility was then calculated by summing the times in which participants completed the word stems with a body or appearance related solution. Therefore the index could range between 0 (all the stem were completed with neutral words) and 7 (all the stem were completed with body related words) so that a higher index reflects higher levels of body-related thoughts accessibility. However, the two-way ANOVA conducted with Gender of the Gaze (Male vs Female) and Type of Focus (Body focus vs Neutral) as between factors on the body accessibility index did not lead to any significant effects ($p > .13$, $\eta^2_p < .01$). Therefore this variable we will not be further discussed.

Emotions. Previous work has demonstrated that objectifying experiences could increase negative mood among women (e.g. Harper & Tiggemann, 2008, Gapinsky & Brownell, 2001). Moreover, it has been demonstrated that mood could also affect cognitive performance and increase intrusive thoughts (Seibert & Ellis, 1991). Therefore we decided to measure participants' mood by asking them to complete the Positive and Negative Affect Schedule (PANAS, Watson, Clark e Tellegen, 1988). PANAS is a well-known and validated measure that assess mood by asking participants to report how much each of 20 traits described their mood at the present moment on a scale that ranged from 1 (not at all) to 5 (Very much). Ten of these traits are positive emotions (e.g. interested, enthusiastic, attentive) and compose the Positive Affect subscale (PA), the other 10 compose the Negative Affect subscale (NA, e.g. distressed, nervous, irritable). We calculated PA (Cronbach's $\alpha = .79$) and NA (Cronbach's $\alpha = .85$) indices by averaging the response to the correspondent 10 traits, so that higher scores represent, respectively, higher levels of Positive emotions and higher levels of Negative emotions. The 2X2 repeated measure ANOVA with Gender of the Gaze (Male vs Female) and Type of Focus (Body focus vs. Neutral) as between factors and Positive and Negative Affect indices as within factors did lead only to a main effect of mood so that participants regardless of Gender of the Gaze or Type of Focus reported higher level of Positive mood ($M = 2.88$, $SD = .66$) than Negative mood ($M = 1.53$, $SD = .56$). Given that no effects of the manipulation were found, we will no discuss this variable further.

Menstrual Cycle questionnaire. After filling out demographic questionnaire, participants filled out a questionnaire regarding their menstrual cycle. In particular, they were asked to report the first day and last day of the last cycle and the estimated first and last day of the next menstrual cycle. They also were asked to report if they usually have a regular cycle and if they are using hormonal contraceptive. For each participant, we then proceed to calculate the conception risk or fertility level using backward counting method (see for e.g. Piccoli et al.,

2013; Rule, Rosen, Slepian, & Ambady, 2011 for similar procedure). According to Wilcox and colleagues (Wilcox, Dunson, Weinberg, Trussell, & Baird, 2001), the peak of the conception risks falls between 6 days prior and 1 day after the ovulation day (which falls 14 days before the next bleeding, Jöchle 1973). Therefore, for each participant, we calculated the ovulation day as the 14th day before the estimated first day of next menstruation. We then calculated the distance in days between the ovulation day and the day of the experiment. Controlling for regularity of the cycle, we used Wilcox and colleagues' table (2001) to determine participant's conception risk level starting from the day of the highest conception risk and counting back or forward the corresponding distance with the day of the experiment. Therefore the fertility index could range from .000 to .094 with higher values indicating higher level of fertility. The index was calculated both for normally ovulating women and for women who used hormonal contraceptives. However, following Piccoli and colleagues (2013) we conducted the analyses only for normally ovulating women.

Results

Self-objectification. To test the hypothesis (Hp1) that a high objectifying experience would increase participants' self-objectification by increasing body surveillance, a two-way ANOVA was conducted on participants' score of Body Surveillance with Gender of the Gaze and Type of Focus as between factors. A main effect of Gender of the Gaze was found, $F(1,1555) = 4,16$, $p = .041$, $\eta^2_p = .03$. Participants reported higher level of Body Surveillance when they received a Male Gaze ($M = 3.52$, $SD = .95$) than a Female Gaze ($M = 3.21$, $SD = 1.00$). A main effect of Type of Focus also emerged, $F(1,155) = 7.98$, $p = .005$, $\eta^2_p = .05$. Participants reported higher score of Body Surveillance in the Body Focus condition (i.e. having a photo of their body taken, $M = 3.58$, $SD = .98$) compared to the Neutral condition (i.e. photo to a neutral object, $M = 3.15$, $SD = .95$). However, the interaction between Gender of the Gaze and Type of Focus did not lead to significant effects on Body Surveillance, $F(1,155) = 2.00$, $p = .16$,

η^2_p = .01. Therefore, the two manipulations had independent effects on Body Surveillance, with participants reporting higher level of self-objectification both when receiving a male gaze interacting with a male experimenter vs. receiving a female gaze and when they were led to a body vs. neutral focus

In order to test the same effects on Body Shame we performed the same two-way ANOVA as for the Body Surveillance on participants' scores of Body Shame. Neither a main effect of Gender of the Gaze ($p > .40$, $\eta^2_p < .01$) nor Type of Focus ($p > .20$, $\eta^2_p < .01$) were found as well as no interaction between Gender of the Gaze and Type of Focus was found ($p > .20$, $\eta^2_p < .01$). Therefore, the activation of a body focus as well as receiving a male gaze affected body monitoring significantly, but did not influence the level of body shame reported by participants.

Cognitive Performance. In order to test the detrimental effects of our objectifying manipulation on the cognitive performance on the SART, we conducted a series of two-way ANOVAs on the percentage of NO-GO success and omission as well as on the meanRTbeforeNO-GOsuccesss index, the meanRTbeforeNO-GOfailure index, and the meanRT_go index, with Gender of the Gaze and Type of Focus as between factors. We hereby present only the significant results that emerged, which are concerned with the meanRTbeforeNO-GOsuccess and the meanRT_go indices.

*RTs preceding a successful withhold of the response to the NO-GO trials***.** A significant effect of Gender of the Gaze emerged on RTs preceding a *successful* withhold of the response to the NO-GO trials, $F(1,148) = 7.54$, $p = .007$, $\eta^2_p = .05$. In line with predictions, participants reported slower RTs before a success when they received a Male Gaze ($M = 389.46$, $SD = 104.27$) than a Female Gaze ($M = 346.32$, $SD = 87.56$). However, neither a main effect of Type of Focus ($F(1,148) = .43$, $p = .51$, $\eta^2_p = .003$) nor a Gaze Gender X Type of Focus effect ($F(1,148) = .13$, $p = .72$, $\eta^2_p = .001$) were found. Therefore, participants had slower performance

when giving correct NO-GO responses when they interacted with a male experimenter (Male Gaze condition) compared to participants in the Female Gaze condition.

MeanRT_Go index. In line with the previous result, even if this time the significance threshold was not met, we found a tendency of Gender of the Gaze to affect the overall RTs on the Go trials, $F(1,148) = 3.19$, $p = .08$, $\eta^2_p = .02$. In particular, participants tended to have a slower performance when they had received a male gaze ($M = 375.07$, $SD = 92.46$) compared to when they received a female gaze ($M = 350.42$, $SD = 69.54$). Again, neither the main effect of Type of Focus ($p > .90$, $\eta^2_p < .001$), nor the Gaze Gender X Focus Type effect ($p > .90$, $\eta^2_p < .001$) was found.

Task Intrusive Thoughts.

TRI. To test if the condition had an effect on participants' level of Task Intrusive Thoughts we conducted a series of separate analysis. A two-way ANOVA was conducted on participants' level of Task-Related Interference (i.e. TRI, intrusive thoughts regarding the task and preoccupation about the performance) with Gender of the Gaze and Type of the Focus as between-participants factors. In line with the findings on cognitive performance and consistent with predictions, the results showed a significant main effect of Gender of the Gaze ($F(1,155) = 7.00$, $p = .009$, $\eta^2_p = .04$) so that participants who received a male gaze reported higher levels of TRI ($M = 5.74$, $SD = .99$) compared to those who received a female gaze ($M = 5.30$, $SD = 1.10$). Again, neither the main effect of Type of Focus, nor the interaction between the two factors was significant ($p > .26$, $\eta^2_p < .008$).

TUT - Body Appearance. We subsequently conducted the same ANOVA performed on TRI on participants' level of Task-Unrelated Thoughts regarding Body's Appearance. Even if not significant, an interesting tendency was found for the Type of Focus, $F(1,155) = 2.33$, $p = .13$, $\eta^2_p = .02$. In line with predictions, participants in the Body Focus condition tended to report

an increased amount of body-related intrusive thoughts (M = 1.76, SD = 1.26) compared to participants in the neutral focus condition (M = 1.49, SD = .93).

TUT - Internal Bodily Awareness. We finally conducted the same analyses with Gender of the Gaze and Type of Focus as between factors on Task Unrelated Thoughts related to Internal Bodily Awareness. In line with predictions, an interesting main significant effect of the Type of Focus was found ($F(1,155) = 5.56$, $p = .02$, $\eta^2_p = .04$), so that participants in the Body Focus condition showed a decreased amount of thoughts regarding the internal state of the body (M = 2.20, SD = 1.63) compared to participants in the neutral focus condition (M = 2.87, SD = 1.89). Therefore, in line with predictions by Objectification Theory (Fredrickson & Roberts, 1997), we found that participants that had their body gazed, regardless of the gender of the gaze, tended to be less connected with the sensation and feelings of their own body and reported fewer thoughts about their inner states.

Mediation Analysis. We had also predicted that the level of Task Intrusive Thoughts and Body Surveillance would be significant mediators of the relation between sexually objectifying Gaze and performance. Therefore, using a bootstrapping technique (Preacher & Hayes, 2008) we tested a model in which TRI (i.e. Task Related Interference) and Body Surveillance (continuous centered) were entered simultaneously as mediators on the relationship between Gender of the Gaze (IV, Dummy coded, 0 = Female Gaze, 1 = Male Gaze) and the performance score provided by menRTbeforeNO-GOsuccess index (DV). It should be noticed that, given that the Type of Focus was not a significant predictor of performance, we decided to enter only Gender of the Gaze as independent variable. Similarly to the results reported above, Type of Gaze significantly predicted performance (b = 43.14, $t(151) = 2.76$, $p = .007$) as well as TRI (b = .40, $t(151) = 2.32$, $p = .02$) and Body surveillance (b = .26, $t(151) = 1.61$, $p = .05$ one tailed). However, neither TRI (b = -1.08, $p > .80$) nor Body surveillance (b = 4.25, $p > .60$) significantly predicted the performance score. In fact, the CIs (with 5000 resamples) for the estimate of the indirect effect

on participants' performance score through both TRI and Body Surveillance did include the zero (TRI: 95% CI: LL = -17.86; UL = 1.70; Body Surveillance: 95% CI: LL = -4.92; UL = 16.45). Therefore, contrary to hypotheses, neither Task Related Interference thoughts (TRI), nor Body Surveillance were significant mediators of the SART performance.

Fertility level impact. To test the effect of fertility level of normally ovulating participants, we started by correlate fertility index with Body Surveillance, Body shame, TRI (Task Related Interference), Task Intrusive Thoughts related to both Body's Appearance and Internal Bodily Awareness, and all the performance outcomes (percentage of NO-GO success, percentage of omission, mean RT_GO, meanRTbeforeNO-GOsuccesss and meanRTbeforeNO-GOfailure). From the analysis emerged that the Fertility index positively correlates with the percentage of NO-GO success (r = .27, p = .01, N = 83) and negatively correlates with the percentage of Omission (r = -.22, p = .05, N = 83). Therefore, the results showed that the higher the level of participants' Fertility (that peak on the ovulation's day) the better the SART performance, with higher success in withholding the response to the NO-GO trials and lower level of errors in the GO trials. Interestingly, we also found that the higher the level of participants' Fertility, the higher the level of Task Unrelated Thoughts about body's appearance, r = .23, p = .04, N= 83. On the contrary, no significant correlations emerged between the Fertility index and Body Surveillance or Body shame.

Given these interesting correlations, we also explored whether Fertility index would moderate the effects of Gender of the Gaze and Type of Focus on both performance outcome (percentage of NO-GO success and percentage of Omission) and Body related Task Intrusive Thoughts. Therefore a series of multiple regressions were performed including Fertility index as potential moderator. However, neither the three-way interaction between Fertility index, Gender of the Gaze and Type of Focus nor the two-ways interaction (Fertility X Gender of the Gaze and Fertility X Type of Focus) on either Performance Outcomes or Body related Intrusive Thoughts

were significant ($\Delta R^2 < .02$, $p > .60$, $F(7, 82) < 2.00$, $p > .30$), thus disconfirming a moderating role of participants' Fertility index on Performance Outcomes or Body Related Intrusive Thoughts.

Discussion

The first notable results emerged in study 1 relate to self-objectification. We found that participants who received a male gaze reported higher level of body surveillance (conceived as a proxy of self-objectification; see Moradi & Huang, 2008 for a review on self-objectification measure) compared to participants who interacted with a female experimenter receiving a female gaze. Similarly, we also found that receiving a body focus (i.e. having the body photographed by the experimenter) increased participants' body surveillance compared to the neutral focus condition. Therefore, contrary to what suggested, for example, by Gervais and colleagues (2011), who argued that the objectifying gaze might not affect body-image's concerns directly, these results actually demonstrate that receiving a male gaze or having one's body scrutinized during an actual interaction increases self-objectification. These results, therefore, sustained the causal link proposed by the objectification theoretical framework between sexually objectifying gaze and self-objectification. This novel result is important because it directly demonstrates a major tenet of Objectification theory considering that, to our best knowledge, self-objectification as a function of the male objectifying gaze has never been demonstrated before in a context of real interpersonal interactions.

The second interesting result refers to participants' cognitive performance. Participants who received a male gaze had slower reaction times before a successful suppression of the response to the NO-GO trial in the SART compared to participants who received a female gaze. A similar trend emerged also for the general reaction times to successful GO trials. Thus, it was demonstrated that women showed slower attentional performance when interacting with a man than with a woman. Although slower reaction times before correct NO-GO trials are generally

thought as suggesting an increase of attention engagement in the task (Cheyne et al., 2009), in this case it is particularly striking to have found such a slow-down effect specifically in the objectifying condition (male gaze). Indeed, participants had to slow down significantly more in order to make a correct answer when receiving a male than a female gaze, a result suggesting that they needed to deploy more attention resources in order to be successful on the task.

These performance findings are also in line with the research by Quinn and colleagues (2006) who have shown slower overall responses in a Stroop task (i.e. a measure of attention resources) by female participants under a body focus manipulation (via swimsuit vs. sweater manipulation). However, the present results extend Quinn's et al.'s results (2006) by demonstrating this important effect in a context of actual interpersonal interactions rather than within the somewhat artificial swimsuit paradigm. Such ecological setting allowed us to demonstrate clearly the effects on self-objectification and performance of the objectifying male gaze, which is one of the primary ways through which sexual objectification is enacted, and is considered to be one of the main precursors of self-objectification and its consequences (e.g. Calogero, 2004, Fredrickson & Roberts, 1997, Moradi & Huang, 2008).

Another main goal of the present study was to advance the literature by studying task intrusive thoughts during the cognitive performance. The results emerged in Study 1 are especially interesting: the objectifying male gaze (compared to the female gaze) increased the amount of Task Related Interference thoughts during the SART. In other words, participants interacting with a male experimenter and receiving a male gaze, as opposed to receiving a female gaze, seemed to be more preoccupied for their performance by reporting an increased amount of task- and performance- related intrusive thoughts during the task. Therefore, not only the male gaze affected the women's cognitive performance, slowing their attention responses, but it also increased their preoccupation about performance during the task. These findings are in line with previous research that has shown that Task Related Interference levels tend to increase after

incorrect responses (e.g. Cheyne et a., 2009; Smallwood et al., 2004). These studies have also suggested that such an attempt to redirect attention back to the task (TRI) has, however, a boomerang effect on performance and might interfere with the ongoing task (Cheyne et a., 2009; Smallwood et al., 2004). Although the present results are very interesting because both the level of task-related interference and the cognitive performance were affected by the gender of the gaze, nevertheless our mediation hypothesis was not supported because the increased amount of task intrusive thoughts did not in turn predict the decrements in cognitive performance.

In addition, besides having reported higher levels of body surveillance, interestingly participants reported lower level of thoughts regarding the internal bodily state (e.g. hunger etc.) when a body focus was activated. This pattern of result is in line with Objectification Theory, which proposes that when women take an external perspective of their own body (i.e. self-objectification) they are less accurate in detecting internal physiological sensations (Fredrickson & Roberts, 1997). Previous correlational studies have indeed tested the link between self-objectification, body shame, decreased bodily awareness and psychological well-being outcomes reporting mixed results (e.g. Daubenmier, 2005; Szymanski & Henning, 2007; Tiggemann & Kuring, 2004; Tylka & Hill, 2004; for a review Moradi & Huang, 2008). However, our findings extend previous results because they directly demonstrate for the first time in an experimental study that objectifying experiences can affect internal body awareness.

Finally, the level of fertility of participants was positively correlated both with the performance success and with task intrusive thoughts regarding one's physical aspect. The former results might appear quite puzzling, but it might actually be in line with research showing that during the ovulatory phase (i.e. highest fertility level) women have better performance on simple repetitive tasks because they are more automatized during the estrogen peak (therefore during ovulatory phase), whereas they tend to have the lowest performance on difficult tasks that require inhibition (Komnenich, Lane, Dickey & Stone, 1978). Even though the SART procedure

actually requires an inhibition response, by its nature it actually induces to also give automatic and repetitive responses if the attention is not sustained, a response set that could therefore partially explain our findings. On the contrary, the result regarding the positive correlation between fertility level and body appearance-related thoughts is entirely in line with previous work demonstrating, for example, that women tend to be more interested in their physical appearance and they wanted to be more sexy during the high fertility phase (e.g., Durante, Li, & Haselton, 2008; Haselton & Gangestad, 2006).

To summarize, results of Study 1 replicated and partially extended previous research by testing the effects of sexually objectifying experience, especially the male gaze, on women's attention resources, self-objectification and intrusive thoughts during the task. However, several limitations should be acknowledged.

First of all, it is important to recognize that the effect sizes in Study 1 were quite small, indicating that the objectifying situation of receiving a male gaze accounted for a small percentage of the variance in our DVs. However, we argue that our small effect sizes should not be considered as trivial given that women in everyday life report to experience sexually objectifying events repeatedly (e.g. Swim et al., 2001); if our manipulation accounts for just one of those experiences, those effects could accumulate quickly over time.

Moreover, contrary to our initial hypotheses, we did not find any significant interaction between gender of the gaze and type of focus and the most important results were found for the manipulation of gender of the gaze. To explain this result, we argue that, in line with Calogero (2004), the mere interaction with a male gaze, regardless of the type of interaction (body focus or neutral focus), could be sufficient to lead women to self-objectify, impair their attention resources and increase their preoccupation about their performance. Moreover, because our participants made comments on the attractiveness of the male experimenter, we reasoned that this could have been a factor increasing the effect of the male gaze manipulation. In order to

overcome this possible confound, we conducted a second study (Study 2), in which we further investigated the role of the experimenter's level of attractiveness in self-objectification.

Additionally, contrary to our hypothesis, neither body surveillance nor task intrusive thoughts played a role in explaining the attention impairment. This is not entirely unexpected, given that Fredrickson and Roberts (1997) have suggested that women's cognitive performance, when experiencing sexual objectification, might be impaired *directly* because they are distracted, or *indirectly* through self-objectification. If this is the case, our results would to support the former process. Nevertheless, we think that it would be important to explore a further mechanism that may account for the relation between sexually objectifying gaze and cognitive performance decrements. In line for example with studies on athletic performances (Jackson, Thomas, Marsh, & Smethurst, 2001; Schuler & Brunner, 2009), an interesting possible mechanism underlining cognitive performance might be peak motivational state or, what is called, flow experience. As also noted by Moradi and Huang (2008), the original objectification theoretical framework has hypothesized a causal chain between self-objectification and flow experience (i.e. peak motivational states), of which cognitive performance been some times used as a proxy. However we argue that cognitive performance might actually be a partial consequence of the ability to achieve the optimal "flow" during the task. Flow experience is, indeed, defined as the experience of complete immersion and concentration on a demanding tasks that is associated with enjoyment and creativity (Csikszentmihalyi, 1990; Fredrickson & Roberts, 1997); therefore we proposed that the success to the task could actually be predicted by the level of immersion (i.e. flow experience) that participants are experiencing.

We furthermore proposed that another possible predictor of cognitive performance could be self-attribution of competence. The literature regarding self-efficacy and cognitive performance shows that self-efficacy and self-perception of competence have positive s on cognitive performance (e.g. Bandura, 1989; Pintrich, V. De Groot, 1990). At the same time,

research on dehumanization demonstrated that when women are objectified they are perceived as lacking competence, warmth and morality, in other words they are perceived as less human (e.g. Heflick & Goldenberg 2009; Hefflick, Goldenberg, Cooper, Puvia 2011, for a review Heflick & Goldenberg, 2014). Besides increasing self-objectification, we thus wondered whether a sexually objectifying experience (e.g. objectifying gaze) might also lead women to perceive themselves as less competent, a result that would help explain the disrupted cognitive performance. Therefore, in Study 2, we explored the role of sexually objectifying gaze and perceived attractiveness of the experimenter on flow experience, self-attribution of competence and cognitive performance.

Study 2

The main goal of study 2 was to test the hypothesis that the male experimenter's level of attractiveness might have an effect on cognitive performance and self-objectification. Therefore, in Study 2 we decided to use an experimental design similar to Study1, by manipulating the gender of the gaze (female vs. male) but also, at the same time, collect a measure of perceived attractiveness of the experimenter. Specifically, we hypothesized that the higher the level of perceived attractiveness of the male experimenter, the higher the participant's body surveillance and the lower the performance on the SART task as well as the Flow experience. The rationale behind these hypotheses was the assumption that interacting with an attractive man (receiving a sexually objectifying gaze) would be more threatening for women, solicit higher levels of body monitoring, and also distract them from the task by impairing the perfect "flow" of action as compared to interacting with a less attractive man. In addition, we hypothesized that the effects of the experimenter's perceived attractiveness would be stronger for participants who attribute higher importance to physical beauty and have interiorized to a greater extent unrealistic beauty ideals. As a case in point, previous research has already demonstrated that Sociocultural pressure to conform to the ideal of beauty promoted by the media plays an important role in predicting

self-objectification, body dissatisfaction and negative well-being outcomes (e.g. Calogero, Davis, Thompson, 2005; Harper & Tiggemann, 2008; Vanderbosh & Eggermont, 2012; Yamamiya, Cash, Melnyk, Posavac, & Posavac 2005, Moradi & Huang, 2008 for a review). Therefore, we hypothesized that the level of beauty ideals' internalization and the level of perceived attractiveness of the experimenter together would predict higher body surveillance and stronger impairment of attention resources. Regarding the level of attractiveness of the female experimenter we had no a priori hypotheses. One possibility is that, in line with a halo effect stereotype (Dion, Berscheid, Walster, 1972), because what is "beautiful is good", an attractive female experimenter would be seen as nicer and more welcoming, thus creating an environment in which participants might feel more at ease, have a positive experience and achieve good performance. An alternative possibility is that an attractive female experimenter would be more threatening especially for female participants who have internalized to a greater extent the socially shared ideal of beauty, thus leading them to have more negative experiences and worse performance. Finally, another possibility is that the level of attractiveness of the female experimenter would play no role in determining performance.

As introduced above, the other major aim of Study 2 was to further investigate possible mechanisms underlying cognitive performance such as self-perception of competence and flow experience. Therefore, in line with dehumanization studies (for a review, Heflick and Goldenberg, 2014) as well as objectification theory (Fredrickson & Roberts, 1997), we also hypothesized that participants in the male objectifying gaze condition would show a decreased self-attribution of competence, morality and warmth, and would also have a lower flow experience during the SART. The design adopted in Study 2 was very similar to Study 1. However, since the most interesting results of Study 1 concerned the gender of the gaze, but not the type of focus, we decided to drop the latter factor. Therefore, in Study 2 we had a one-factor

design, in which we manipulated the objectifying gaze by having one of two male or female experimenters interact with participants and take pictures of their body.

Method

Participants. One hundred and seven female participants, between 18 and 31 years old (M_{age} = 21.23 years, *SD* = 2.35 years) took part in the experiment. We adopted the same recruiting strategy as in Study 1. Seventy-six participants were University students heterogeneously distributed between Law, Economics, Medicine, Psychology, Biology and Engineering Schools (71%), whereas 31 participants were workers or unemployed (29%). Moreover, 96 participants reported to be heterosexual (90%), 4 reported to be homosexuals and 5 reported to be bisexuals. Since the Ns of homosexual participants were small we could not test the role of Sexual Orientation and we conducted all the analyses without excluding them. Nevertheless, similar pattern of results were found excluding them from the sample. The procedure of the experiment and the main dependent variables were administered in the same order in which they are presented below.

Procedure. In order to collect a chronic measure of the Internalization of the beauty ideals, one week before the experiment, participants filled out the Internalization subscale of the SATAQ-3 (i.e. Sociocultural Attitudes Toward Appearance Questionnaire, using Survey Monkey platform), which was allegedly part of an unrelated study conducted by a different master student. After one week participants arrived individually at the lab to take part in the main experiment. A similar procedure as Study 1 was adopted. The experiment was run in a quiet laboratory at the University where participants completed the task individually. Participants were randomly assigned to interact with a female (female gaze condition) or a male experimenter (male gaze condition). After being accompanied individually to the lab, participants were informed that they would be involved in two unrelated studies. In the allegedly separate first study, differently from Study 1, participants were photographed by the experimenter from the

neck down, both from the front and from the back. The cover story was the same as in Study 1 (i.e. "we are collecting materials for a future study on impression making") with the exception that, in order to strengthen the manipulation impact, the experimenter omitted saying that the photos would be collected without framing the face just for Privacy reasons. After the experimenter took the photos, participants filled out a questionnaire measuring individual differences (i.e. Body Surveillance and Self-attribution of Competence, Morality and Warmth), a task allegedly part of the first study. Immediately after, the experimenter briefly showed participants the pictures on the computer with the alleged purpose of controlling their quality. As for Study 1, after this phase participants were introduced to the allegedly second experiment that aimed at studying attention processes (cover story). Participants performed a slightly modified version of the Sustained Attention to Response Task (SART) on the same computer used in Study 1 using Inquisit software (Version 4). Then, participants filled out the Flow Experience scale, the Task Intrusive Thoughts scale, the demographic questions, a measure assessing the experimenter's attractiveness and the questionnaire regarding the menstrual cycle. All measures were completed in the lab using Survey Monkey Platform. Afterwards, participants were fully debriefed and a second informed consent was signed (as in Study 1). Finally, participants were thanked for their participation, and dismissed.

Materials

Internalization of the beauty ideal. The Sociocultural Attitudes Towards Appearance Questionnaire-3 (SATAQ-3; Thompson, van den Berg, Roehrig, Guarda, & Heinberg, 2004) is a self-report questionnaire that measures awareness and internalization of the beauty ideals promoted by society. The original scale consists of four subscales (Information, Pressure, Internalization-Athlete, Internalization-General), and has been shown to have an excellent convergent validity (Thompson et al., 2004). Because Internalization of Sociocultural beauty ideals has already been shown to predict self-objectification as well as negative well-being

outcomes (e.g. Harper & Tiggmann, 2008), we hypothesized that it could be a significant moderator of the effects of the Sexually Objectifying Gaze manipulation on our DVs. Therefore, seven days before the experiment, participants filled out the Italian validated version of the 9-item Internalization-General subscale of the SATAQ-3 (Stefanile, Matera, Nerini, & Pisani, 2011, e.g. "I would like my body to look like the models who appear in magazine"). Participants reported their responses on a 5-point Likert scales ranging from 1 (*definitely disagree*) to 5 (*definitely agree*). We created the Internalization index (α = .95) by averaging participants responses, so that the higher the scores the higher the level of beauty ideal internalization.

Sexually Objectifying Gaze manipulation. In Study 2 we manipulated the sexually objectifying gaze by having one of two male (male objectifying gaze) vs one of two female experimenters (female objectifying gaze) interact with participants and take pictures of participants' body. Differently from Study 1, we had therefore a single-factor design (Gender of Gaze). The pictures to the body of participants were taken exactly as in Study 1 (see Study 1 Procedure). It should be noticed that all participants interacted with the experimenter (either male, or female) for the entire duration of the experiment (30 min). All four experimenters were master students or trainee in their early twenties. As already explained above, to asses the experimenter's level of perceived attractiveness, at the end of the study we asked participants to report how much they found the experimenter attractive on a scale ranging from 1 (*not at all*) to 7 (*very much*).

Body Surveillance. Participants completed the same measure of Body Surveillance as in Study 1. Following the same procedure, we then calculated the Body Surveillance index (Cronbach's α = .79) so that higher scores reflect higher levels of body monitoring and self-objectification.

Competence, Morality and Warmth. To assess participants' levels of self-attribution of competence, morality and warmth, participants were instructed to report how much they thought

that each of the listed traits described them, on a scale that ranged from 1 (*Not at all*) to 9 (*Very much*). The list of traits included 4 traits assessing Competence ("Competent", "Intelligent", "Capable", "Skillful"), 4 assessing Warmth dimension ("Friendly" "Likeable" "Kind" "Warm") and 3 related to Morality ("Sincere", "Trustworthy", "Honest"). These 11 traits were used in previous research to assess dehumanization of sexualized targets (Heflick & Goldenberg, 2009, Heflick et al., 2011). To this list, we also add 4 traits (from Bastian, Jetten, Chen, Radke, Harding, & Fasoli, 2013) that specifically tap into Human Nature attributes ("Emotional", "Superficial" reversed coded), the denial of which leads to mechanistic dehumanization, and Human Uniqueness attributes ("Refined", "Sophisticated"), the denial of which leads to animalistic dehumanization. We then calculated each index by averaging the responses by participants so that higher scores reflected higher levels of attribution respectively of Competence (α = .90), Morality (α = .71), Warmth (α = .74) and Human Uniqueness attributes (α = .74) to the self. We did not calculate the Human Nature index because the two attributes did not correlate (r =. 10, p = .29); therefore this dimension was excluded from the analysis.

Sustained Attention to Response Task (SART). Participants then performed a slightly modified version of the SART (Robertson et a., 1997). In fact, in the original version of the SART (Study 1), participants were presented with a stream of digits (1-9) and their task was to process them and to withhold a response to the digit target 3. It might be argued that, even if the task did not involve any sort of computation, the mere exposure to numbers might elicit the activation of the negative "math stereotype", thus threatening our female participants. In order to overcome this possible confound, in Study 2 participants performed a modified version of the SART in which digits were replaced by letters. The procedure was exactly the same as the original (and Study 1). Participants saw a total of 225 letters ranging from A to I and they had to withhold their responses to the 25 NO-GO trials that in this version corresponded to the letter C. The SART was performed using Inquisit Lab (version 4 by Millisecond software ltd.). As for

Study 1, percentage of No-go success (percentage of correct suppression of the response to No-go trials), percentage of omission (percentage of incorrect suppression in Go trials), mean RT_go, meanRTbeforeNO-GOsuccesss and meanRTbeforeNO-GOfailure were recorded.

Flow experience. Participants' flow were measured adapting five subscales of the Flow Experience State scale (Jackson and Marsh, 1996): Concentration on task at hand (4 items "*My attention was focused entirely on what I was doing*", $\alpha = 76$), Challenge skill balance (4 items, "*I was challenged, but I believed my skills would allow me to meet the challenge*", $\alpha = 73$) Unambiguous feedback (4 items "*I had a good idea while I was performing about how well I was doing*", $\alpha = 64$), Loss of self-consciousness (4 items "*I was not worried about what others may have been thinking of me*", $\alpha = 83$), and Transformation of time (4 items "*The way time passed seemed to be different from normal*", $\alpha = 80$). The scale was translated in Italian by the author and back translated by her supervisor. Participants were asked to express their level of agreement with each item on a 5-point Likert scale ranging from 1 (*Completely Disagree*) to 5 (*Entirely Agree*). We calculated the subscales indices by averaging the responses to each of the 4 items, so that higher scores correspond to higher levels of each of the five aspects of Flow experience. All subscales had acceptable internal consistency (αs = .73-83), except for the Unambiguous feedback subscale (α = .56), which was therefore excluded from further analysis. (see Appendix for the scale)

Task Intrusive Thoughts. Besides the questionnaire used in Study 1, a *free response task* was added, in which participants had the opportunity to report their thoughts freely. Therefore, immediately after the flow experience questionnaire, participants were asked to freely report at least 3 thoughts that they had during the SART. Responses were then coded for presence and number of task-related thoughts (e.g. "I was thinking about the letter C"), performance preoccupation (e.g. "I was worrying about all the errors I made"), internal bodily states and fatigue (e.g. "I'm tired"), preoccupation for what the experimenter was thinking (e.g. "Is she/he

watching me?"). Right after the free response task, participants completed the *task intrusive questionnaire* used in Study 1 (see Study 1 for procedure). Given that neither the Experimenter's Attractiveness index nor Internalization had a moderating role on the effects on condition on the Task Intrusive Thoughts assessed either with the *free response task* or the *task intrusive questionnaire*, we will not further discuss these data.

Menstrual Cycle Questionnaire. To assess the fertility level of participants, at the end of the experiment participants filled out the same questionnaire as in Study1 (see Method of Study 1). We then calculated the Fertility index using the backward counting method as in Study 1. However, contrary to Study 1, no significant correlation emerged between the Fertility index and neither of our DVs ($r < .13$, $p > .18$). Therefore, we will no further discuss these data.

Results

Preliminary Analyses. Descriptive statistics for the principal measures separately for experimental conditions are presented in Table 1. Overall, as it can be seen in Table 1, indices of Body Surveillance, Self-attribution of Competence, Warmth, Morality and indices of Flow experience did not varied across Gender of Gaze conditions ($t(105) < 1.35$, $p > .18$). The only significant differences between conditions was found on SART performance outcomes, specifically on the percentage of omissions ($t(105) = 2.44$, $p = .02$) and on the meanRTbeforeNO-GOfailure ($t(101) = 2.31$, $p = .02$). Contrary to expectations, we found that participants receiving a female objectifying gaze showed higher levels of incorrect suppression of the responses to Go trials (i.e. Omissions, $M = 3.31$) as well as faster reactions before unsuccessful NO-GO trials ($M = 278.19$), compared to participants receiving a male objectifying gaze (Percentage of Omissions $M = 3.31$; meanRTbeforeNO-GOfailure $M = 304.36$). Therefore, contrary to predictions, female participants underperformed at the SART when receiving a female objectifying gaze compared to a male objectifying gaze. However, the main prediction was that the level of attractiveness of the experimenter would influence the results. Therefore,

we will now present the results regarding the moderation analyses conducted to test this hypothesis.

Table 1. Study 2. *Means and Standard Deviations of the main DVs divided by conditions*

	Female Gaze (n = 50)		Male Gaze (n = 57)	
	M	*SD*	*M*	*SD*
Body Surveillance	3.55_a	.98	3.28_a	1.10
Self-attribution of Competence	6.02_a	1.42	6.06_a	1.52
Self-attribution of Warmth	6.48_a	1.15	6.62_a	1.32
Self-attribution of Morality	7.45_a	.99	7.51_a	1.04
Percent of NO-GOsuccess	44.08_a	26.01	44.28_a	27.96
Percent of omission	3.31_a	3.96	1.78_b	2.13
meanRTbeforeNO-GOsuccesss	376.18_a	150.63	390.10_a	116.45
meanRTbeforeNO-GOfailure	278.19_a	51.09	304.36_b	61.96
Flow_Concentration on the task	3.31_a	1.04	3.32_a	1.00
Flow_Challenge skill balance	2.78_a	.72	2.94_a	.76
Flow_Unambiguous feedback	3.88_a	.83	3.95_a	.92
Flow_Loss of self-consciousness	3.25_a	1.02	3.54_a	1.09
Flow_Trasformation of time	2.84_a	1.08	2.98_b	.97

Note. Means across rows that do not share the same subscript are significantly different from each other at the $p \leq .05$ level (Bonferroni-adjusted).

Moderation of Experimenter's Attractiveness on Percentage of NO-GO Success. We hypothesized that the level of attractiveness of the experimenter might be a moderator of the relation between condition and our DVs. To test this hypothesis, a series of multiple regressions were conducted entering Gender of Gaze (0 = Female objectifying gaze, 1 = Male objectifying gaze), Experimenter attractiveness index (continuous, centered), and their 2-ways interaction as predictors on each of our main DV's. As predicted, a significant interaction effect of Gender of Gaze X Experimenter's Attractiveness emerged on the percentage of NO-GO Success (β = -.42, *t*

= -2.92, p = .004), ΔR^2 = .08, p = .004, Adjusted R^2= .05 $F(3, 103) = 2.87$, p = .04, see Table 2 for complete model standardized and non-standardized coefficients.

Table 2. Study 2. *Multiple Regression Analysis showing the Interaction of Experimenter's Attractiveness (EA) and Gender of Gaze in Predicting the Percentage of NO-GO success in the SART.*

	b	*SE b*	*β*	R^2	ΔR^2	*ΔF (dfs)*
Step 1 (simple predictors)				.01	.01	.03 (2, 106)
Gender of Gaze	-.39	5.80	-.007			
EA	-.47	1.95	-.03			
Step 2 (two-way interactions)				.08	.08	8.56** (3, 106)
Gender of Gaze X EA	-11.00	3.76	-.42**			

*Note: N = 107; * p < .05; ** p < .01; *** p < .001*

As it can be seen in Figure 1, participants receiving a male objectifying gaze who found the experimenter more attractive (1 *SD* above the mean), performed more poorly on the SART (*b* = 35.23) compared to female participants who found the experimenter less attractive (1 *SD* below the mean; *b* = 46.68). The reversed pattern emerged for participants who received a female objectifying gaze, who performed better when they rated the female experimenter as highly attractive (*b* = 45.81) compared to when the experimenter was considered less good-looking (*b* = 35.29). Therefore, consistent with predictions, the Experimenter's level of perceived attractiveness played a significant moderating role in the relation between Gender of Gaze and cognitive performance.

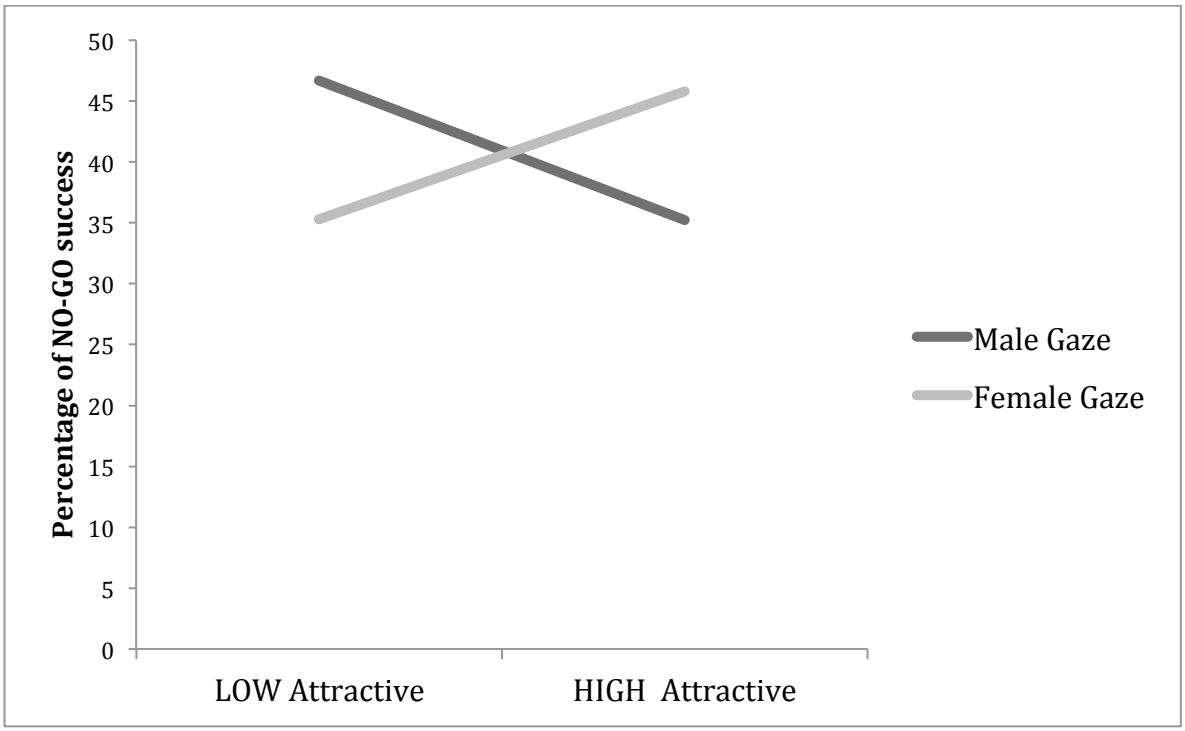


Figure 1. *Study 2. Relation between Gender of Gaze and Percentage of NO-GO success on the SART at High (1SD above mean) and Low (1SD below mean) levels of Experimenter's Attractiveness.*

In addition, contrary to our hypotheses, no significant interaction was found between Experimenter's Attractiveness and Gender of Gaze on Body Surveillance, ($\beta = .24$, $t = 1.64$, $p = .10$), $\Delta R^2 = .03$, $p = .10$, Adjusted $R^2 = .02$ $F(3, 103) = 1.70$, $p = .17$. Similarly, no effects were found either on self-attribution of Competence ($\beta = .18$, $t = 1.27$, $p = .21$), Warmth ($\beta = .17$, $t = 1.17$, $p = .24$), and Morality ($\beta = .24$, $t = 1.64$, $p = .10$), or on any of the flow experience indices ($\beta < .27$, $t < 1.8$, $p > .08$).

Moderation of Experimenter's Attractiveness and Internalization of the beauty ideals. We then tested whether the Internalization of the beauty ideal might moderate the effects of Gender of Gaze condition. Therefore, we conducted a series of multiple regressions entering Internalization as a possible moderator together with Experimenter Attractiveness. Specifically, in the first step we entered the Experimenter's Attractiveness scores (continuous, centered), Gender of Gaze Condition (0= Female objectifying gaze, 1= Male objectifying gaze) as well as the Internalization index (continuous, centered); in the second step all their two-ways

interactions were entered and, finally, in the third step the tree-ways Gender of Gaze X Experimenter's Attraction X Internalization factor was entered in predicting each of the main DVs (entered separately). The only significant results emerged for Flow experience (Challenge skill balance subscale) and self-attribution of Warmth. We hereby reported these results.

Flow_Challenge Skill Balance. Regarding the Flow's index of Challenge skill balance, from the analysis emerged a strong significant two-way interaction between Internalization and Gender of Gaze ($\beta = -.41$, $t = -3.07$, $p = .003$), $\Delta R^2 = .16$, $p = .001$, Adjusted $R^2 = .20$ $F(6, 92) = 4.91$, $p = .001$. See Table 3 for the complete model.

Table 3. *Study 2. Multiple Regression Analysis showing the Interaction between Internalization of the beauty ideal, Experimenter's Attractiveness (EA) and Gender of Gaze Predicting the Flow Experience of Challenge Skill Balance.*

	b	*SE b*	*β*	R^2	ΔR^2	*ΔF (dfs)*
Step 1 (simple predictors)				.10	.10	3.24*(3, 92)
Gender of Gaze	.36	.17	.24*			
EA	.08	.06	.17			
Internalization	-.14	.09	-.17			
Step 2 (two-way interactions)				.26	.16	6.03** (6, 92)
Gender of Gaze X EA	-.13	.11	-.17			
Gender of Gaze X Internalization	-.57	.18	-.42**			
EA X Internalization	.07	.06	.12			
Step 3(three-way interaction)				.26	.00	.35 (6, 92)
Gender of Gaze X EA X Internalization	.08	.13	.09			

*Note: N = 107; * p < .05; ** p < .01; *** p < .001*

As it can be seen in Figure 2, when participants received a male objectifying gaze the higher the level of their Internalization of the beauty ideal (1 *SD* above the mean), the lower the level of Flow_Challenge skill balance experience (i.e. perception that one's own skills are at the

right level to cope with the challenge required by the task, *b* = 2.49). Put differently, as predicted, for participants who received a male objectifying gaze, the lower their level of Internalization (1 *SD* below the mean), the higher the level of Flow_Challenge skill balance (*b* = 3.43). Therefore, in line with our expectation, the level of Internalization moderated the relation between the male objectifying gaze and the Challenge skill balance of Flow experience. On the contrary, participants who received a female objectifying gaze were not influenced by their level of Internalization of the beauty ideals, reporting similar level of FlowChallenge skill balance experience across Internalization levels (Internalization + 1*SD*, *b* = 2.72; Internalization -1*SD*, *b* = 2.53).

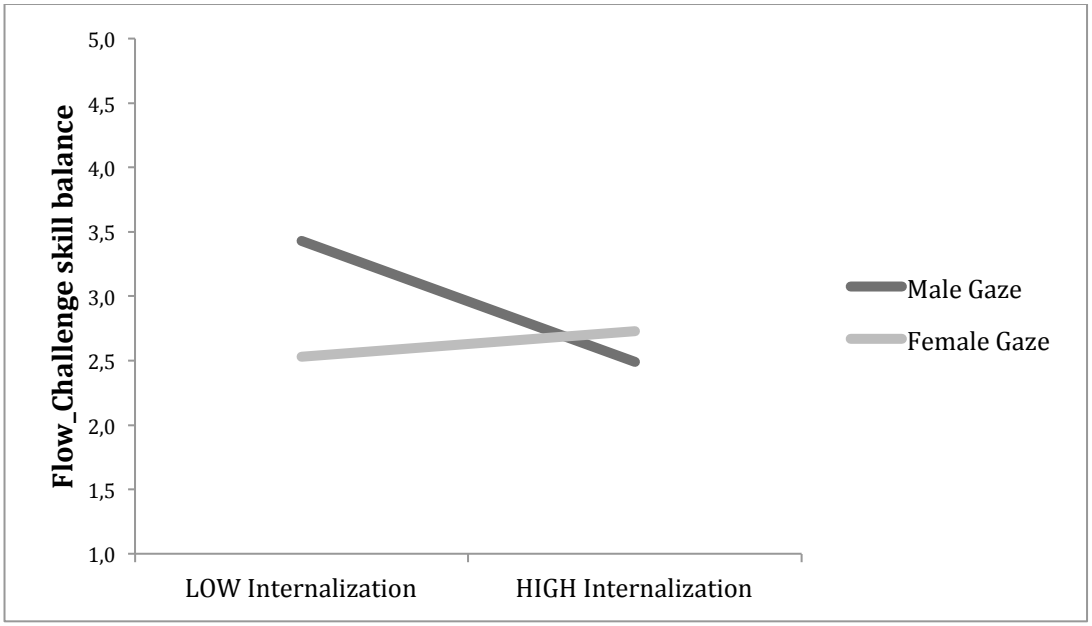


Figure 2. *Study 2. Flow_Challenge skill balance index during the SART as a function of Gender of Gaze and at High (1SD above mean) and Low (1SD below mean) levels of Internalization of Sociocultural standards of beauty.*

Self-Attribution of Warmth. Entering the same predictors described above, we also found an interesting result for the self-attribution of Warmth. In fact, when Internalization index, Experimenter Attractiveness and Gaze Condition were entered together in the model with all

their interactions, a significant 2 way-interaction was found between Gender of Gaze and Experimenter Attractiveness predicting self-attribution of Warmth (β = .42, t = 2.59, p = .01), ΔR^2 = .09, p = .04, Adjusted R^2= .20 $F(6, 92) = 2.60$, p = .02. See Table 4 for the complete model.

Table 4. *Study 2. Multiple Regression Analysis for the Interaction of Internalization of the beauty ideals, Experimenter's Attractiveness (EA) and Gaze Condition in Predicting Self-Attribution of Warmth.*

	B	*SE B*	*β*	R^2	ΔR^2	*ΔF (dfs)*
Step 1 (simple predictors)				.07	.07	2.06(3, 92)
Gender of Gaze	.36	.28	.15			
EA	.05	.09	.06			
Internalization	-.25	.14	-.19			
Step 2 (two-way interactions)				.15	.09	3,00* (6, 92)
Gender of Gaze X EA	.51	.20	.42*			
Gender of Gaze X Internalization	-.13	.32	-.06			
EA X Internalization	.12	.11	.14			
Step 3(three-way interaction)				.15	.00	.000 (6, 92)
Gender of Gaze X EA X Internalization	.004	.23	.003			

*Note: N = 107; * p < .05; ** p < .01; *** p < .001*

As it can be seen in Figure 3, participants who interacted with a man and received a male objectifying gaze reported higher level of self-attribution of Warmth when the perceived Experimenter's Attractiveness was higher (1 *SD* above the mean, b = 7.22) compared to when the experimenter was perceived as less attractive (1 *SD* below the mean, b = 6.62). On the contrary, participants who received a female objectifying gaze were not influenced by the Experimenter's Attractiveness level and reported similar levels of self-attribution of Warmth across level of experimenter's perceived attractiveness (+ 1*SD*, b = 6.40; -1*SD*, b = 6.80).

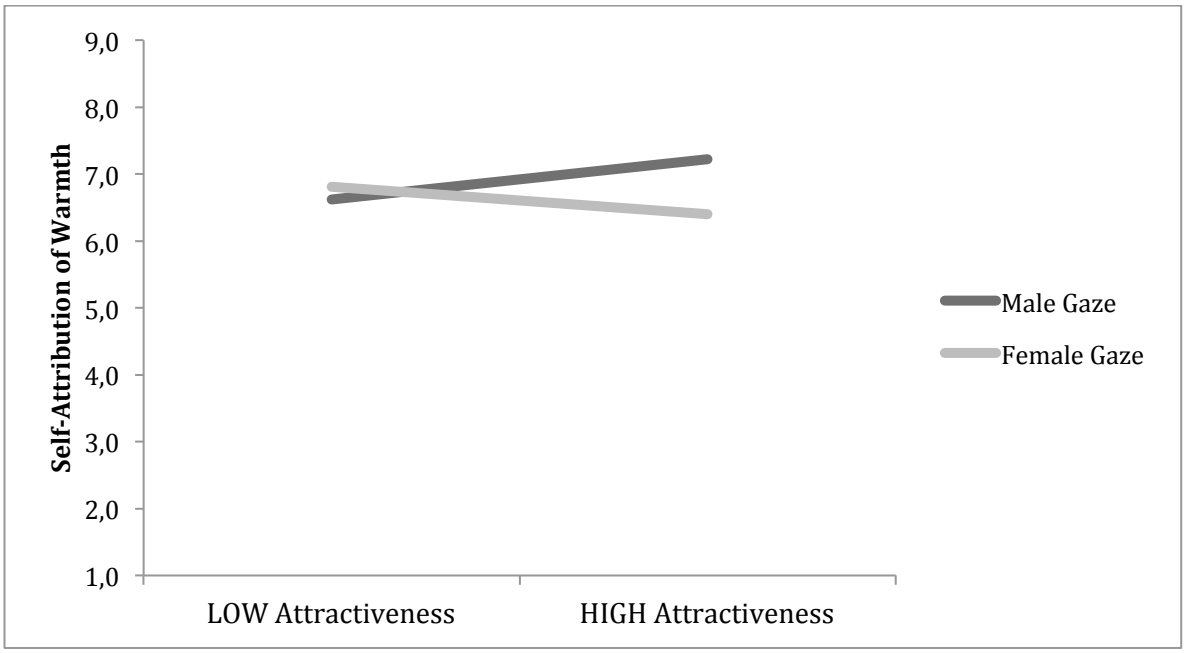


Figure 3. *Study 2. The relation between Gaze Gender Condition and Self-Attribution of Warmth at High (1SD above mean) and Low (1SD below mean) levels of Experimenter's Perceived Attractiveness.*

Mediation Analysis. . We had predicted that the level of Flow experience and Self-attribution of Competence would be significant mediators of the relation between Gender of Gaze and performance. Given that Self-attribution of Competence was not affected by Gender of Gaze, we therefore decided to test only the effect of Flow experience (Challenge Skill Balance subscale). Therefore, using a bootstrapping technique (Preacher & Hayes, 2008) we tested a model in which Flow_ Challenge skill balance (continuous centered) was entered as mediator on the relationship between Gender of Gaze (IV, Dummy coded, 0 = Female objectifying gaze, 1 = Male objectifying gaze) and the performance score provided by Percentage of NO-GO Success index (DV). The results showed that Gender of Gaze was neither a significant predictor of performance (b = -2.26, $t(106)$ = -.47, p = .64) nor of Flow_ Challenge skill balance (b = .16, $t(106)$ = 1.13, p = .26). On the contrary, Flow_Challenge Skill Balance was found to significantly predict performance (b = 15.08, $t(106)$ = 4.65, p = .0001). However, the CIs (with

5000 resamples) for the estimate of the indirect effect of Gender of Gaze on participants' Percentage of NO-GO Success score through Flow_ Challenge Skill Balance did include the zero (95% CI: LL = -1.47; UL = 7.05). Therefore, even though the meditational role of Flow_ Challenge Skill Balance was not supported, we still found that Flow_ Challenge Skill Balance was positively predicted the Percentage of NO-GO Success. In other words, regardless the Gender of Gaze, the more participant perceived that their skills were at the right level to cope with the challenge required by the task, the better their performance.

Discussion

The most important finding of Study 2 regards the moderating role of experimenter's attractiveness. In line with our hypothesis, we found that women receiving an objectifying gaze by a man whom they personally considered attractive had a stronger negative impact on their cognitive performance compared to those who interacted with a man considered as less attractive. Therefore, the perceived attractiveness of the male experimenter led to actually increase the detrimental effect of the objectifying gaze on attention resources. Why is this result important? Since very few studies have directly manipulated the actual objectifying gaze during an interpersonal interaction with another person (i.e. Gervais, et al. 2011, Gay & Castano, 2010) and, to our best knowledge, the level of perceived attractiveness of the experimenter was never been investigated, this finding is entirely novel. Different explanations could be proposed. One possibility is that having the body being gazed by an attractive man would increase the pressure of being attractive as well (increasing body monitoring), which in turn might disrupt attention resources. However, neither the gaze gender condition nor the level of attraction toward the experimenter influenced the level of body monitoring. Therefore, a second possibility, consistent with results of Study 1, is that, in line with suggestions by Objectification Theory (Fredrickson & Roberts, 1997), sexually objectifying experiences lived during interpersonal encounters have a

direct impact on women's attention resources, thus leading them to underperform on difficult tasks. This is exactly what was found: female participants underperformed when interacting with a men perceived as attractive as opposed to less attractive. Importantly the level of attractiveness of the female experimenter had an effect on female performance in the reversed direction. We reasoned that, in line with the Halo effect (Dion et al., 1972) that "beautiful people are good people", with good qualities and competence (for a review Jackson, Hunter, & Hodge 1995), the more participants found the female experimenter attractive, the more they also perceive her as nice and pleasant so that they felt at ease during the experiment as well during the performance.

One important feature of Study 2 is that the SART task used (in which digits were replaced with letters) is completely unrelated to the mathematical domain, thus ruling out the possibility that even a subtle activation of the negative mathematical stereotype could be responsible for the decremented performance (i.e. Stereotype Threat, Steele & Aronson, 1995) that we also found in Study 1. In addition, even though there was no influence of the gender of the gaze condition on self-attribution of competence we found an interesting result regarding the self-attribution of warmth. Indeed it was found that receiving an objectifying gaze from an attractive man, increased women's self-attribution of warmth. Why so? We suggest that, given that warmth and competence are well established gender-stereotypical characteristics, along the communal-feminine versus agentic-male dimensions (e.g. Eagly & Steffen, 1984; Fiske, Cuddy, Glick, & Xu, 2002), it can be hypothesized that receiving an objectifying gaze by a man toward whom they are attracted might lead women to conform more to the stereotype that depict women as warm (Dikemann & Goodfriend, 2006), possibly in order to be more attractive in the eyes of the man. However, future studies should explore such effects to further support this possible explanation.

Another important result of the present study concerns women's flow experience, and in particular the experience of feeling that one's skills are optimally balanced with the challenge

represented by the task, which was found to be directly influenced by the sexually objectifying male gaze depending in conjunction with the level of internalization of the beauty ideals. In fact, women receiving an objectifying male gaze reported that the higher their level of internalization of the beauty ideal the lower they perceived their skill balanced with the task's challenge. So in line with predictions by Fredrickson and Roberts (1997) it was demonstrated for the first time that situational objectifying experiences might actually impede women to achieve flow, that is peak motivational states that are, indeed, associated with pleasure and joy (Csikszentmihalyi, 1990, Fredrickson & Roberts, 1997). In their self-objectification model, Fredrickson and Roberts (1997) have proposed that flow experience might be an important predictor of major negative well-being outcome. Even if the results linking flow experiences to depression mood and eating disorder are quite mixed (see Moradi & Huang, 2008 for a discussion), yet we think it is particularly worrisome that even a temporary situational effect of being sexually objectified can have such a strong impact on flow, especially for women who particularly rely on the (unrealistic) beauty ideal promoted by mass media. This finding also highlights once more the powerful effect of media, which can be thought as a long series of additional situational effects that affect women in everyday life experience. Moreover, even if the mediational model was not supported, in line with our hypothesis and the objectification framework (Fredrickson & Roberts, 1997), it was found that the perception of having one's skill balanced with the task challenge positively predicted women's success on the SART. Indeed, this result is in line with the literature regarding flow and performance that highlights how flow experience positively predicts successful performance especially for athletes (e.g. Jackson and Marsh, 1996; Jackson, Thomas, Marsh, & Smethurst, 2001)

Study 2 has also some limitations. First of all, as for Study1, some of our effect sizes were quite small. Nevertheless, we think that results of Study 1 and 2 are very interesting and meaningful, especially if we think that our manipulation accounted for just one of the many

objectifying situation that women might experiences during interpersonal interactions or through sexualized mass media (Swim et al., 2001). A similar reasoning might be applied to understand the reason why the results of Study 1 regarding the task intrusive thoughts were not replicated in Study 2. We argued that the manipulation of Study 2 was probably too weak to last till the end of the study (when we collected the task intrusive questionnaire). Moreover, the intrusive thoughts' questionnaire was a retrospective questionnaire and was filled out after the flow experience (another retrospective questionnaire); therefore the responses might have not captured the real amount of intrusive thoughts. Future studies may utilize a thought probe sampling to overcome this problem (but some precaution should be taken giving that thought probes increases errors in the subsequent trials, see for example Smallwood, 2004). A final limitation of this study is that, event if both task intrusive thoughts and flow experience were influenced by condition as predicted, we did not find support for the mediational models proposed; therefore the mechanisms underlining cognitive performance are still quite unclear.

To summarize, with Study 2 we extended the results of Study 1 and the objectification literature by demonstrating that women's cognitive performance and peak motivational states are affected by sexually objectifying encounters, especially if the male experimenter giving the objectifying gaze is considered attractive and especially for women with higher levels of beauty ideals' internalization. In conclusion, it is important to underline that, even though the objectifying male gaze is thought to be one of the main precursors of sexual objectification (Fredrisckson & Roberts, 1997, Calogero, 2004), very few studies had actually investigated experimentally its negative effects on women's cognitive and psychological experiences. Therefore, it can be concluded that studies 1 and 2 together have helped further extend our knowledge regarding the effects of sexually objectifying experiences.

Study 3

As introduced above, together with the sexual gaze experienced during interpersonal interactions, mass media are one of the main sources of sexual objectification. Indeed, many studies have shown that exposure to sexually objectifying media may increase body image concerns, self-objectification as well as negative body emotions and eating disorders (e.g., Abramson & Valene, 1991; Aubrey, 2006; Aubrey, 2007; Hargreaves and Tiggemann, 2004; Holmstrom, 2004; see Grabe, Ward &, Hyde, 2008 for a review). However, to our best knowledge, no published research has investigated whether the exposure to sexually objectifying media might also impair women's cognitive performance. Therefore, parallel to Study 1 and 2, in Study 3 we explored such effects by having participants either watch a video clip from Italian television, in which women are depicted as sexual decoration, or watch a nature documentary. Furthermore, given that, Objectification Theory (Fredrickson & Roberts, 1997), posits that the experience of being sexually gazed in interpersonal encounters and the repetitive exposure to sexualized media work together to elicit the tendency to take an external perspective on the physical self (i.e. to self-objectify), we explored this relationship by manipulating exposure to objectifying media and to a sexually objectifying gaze. Specifically, after watching either a sexually objectifying video clip or a neutral clip, we manipulated the sexual gaze by having a female experimenter take pictures either of participants' body or a neutral object in the room. We hypothesized that these two objectifying situations might work together to elicit self-objectification and body dissatisfaction and to disrupt cognitive resources and flow experience in a cognitive task. Additionally, given that anxiety (e.g. test, social, math) has been shown to be an important predictor of cognitive and academic performance (e.g. Ashcraft & Kirk, 2001; Cassadi & Jonhson 2002; Eysenck, 1985; Sarason, 1984) we also tested whether social appearance anxiety would moderate the reactions to the objectifying conditions by increasing their effects on the DVs. Finally, as in Study 2, we also tested the moderating role of internalization of the

beauty ideal promoted by mass media.

Method

Participants. One hundred and twenty-two female participants took part in Study 3 (*M* age = 23.63, *SD* age= 3.16). Participants were recruited by one of two female experimenters using the same recruiting strategy reported in Study 1. The sample consisted in 109 (89%) University Students, 79 (65%) of which were Psychology's students, and 13 (11%) workers or unemployed. Moreover, 113 (93%) reported to be heterosexual, 2 reported to be homosexuals (1%) and 7 bisexuals (6 %). As for Study 2, since the *Ns* of homosexual participants were small we could not test the role of Sexual Orientation and we conducted all analyses on the entire sample. Nevertheless, similar patterns of results were found excluding them from the sample. The experiment was run in a quiet laboratory at the University where participants completed the task individually. The procedure of the experiment and the main dependent variables were administered in the same order in which they are presented below.

Procedure. Participants were welcomed by one of two female experimenters and were told that the experiment aimed at studying memory's process (cover story). In particular, they were instructed to watch a brief video by carefully paying attention to all the details because, after a series of alleged distractor tasks (i.e. body focus manipulation, body surveillance, working memory test and flow experience), they would be asked to perform a memory task regarding the video that they had initially watched. Therefore, their task was to remember as much of the video's details as possible at the end of the distractor tasks. After giving their consent to participate in the study, participants were randomly assigned to watch one of two videos (Sexually Objectifying video vs. Control video). After carefully watching the video, participants were told that the distractor tasks would start. The first allegedly distracting task was actually the Focus manipulation (Body Focus vs Control). Using the same cover story as in Study 1, the experimenter took pictures of either the participant's body (from the neck down) or a neutral

object in the room. Afterwards participants performed another series of allegedly unrelated distractor tasks (Body Surveillance scale, Body Dissatisfaction questionnaire, Working memory task, Flow experience questionnaire). Finally, participants were presented with an alleged memory task with questions regarding the video. At this point, the experimenter communicated to the participants that the experiment was over, but asked them whether they would not mind to fill out a last brief questionnaire that the experimenter was allegedly collecting for her own internship (i.e. a chronic measure of Internalization of the beauty ideal and Social appearance body anxiety). Afterwards, participants were fully debriefed and a second informed consent was signed (as in Study 1 and 2). Finally, participants were thanked for their participation and dismissed.

Materials

Video manipulation. Participants randomly assigned to the sexually objectifying condition were presented with a brief video based on an Italian video-documentary called "Women's body" (Zanardo, Chindemi & Cantù, 2009). The video compiled scenes from popular Italian TV programs in which women are portrayed as sexual objects with no role except to be a scantily dressed decoration, or to show very provocative dance moves while the male presenter, as well the camera, sexually gazes their bodies. In the Control condition, participants watched a nature's documentary about Tundra's landscape and birds. Importantly, the two clips had the same duration (3 minutes) and the same soft music background.

Focus manipulation. Immediately after watching the video, with the same cover stories as in Study 1 procedure, the experimenter took 4 pictures of either the participant's body (from the neck down, from the front and front behind) or an object in the room, thus activating the corresponding Body focus or Control condition.

Body Surveillance. As for Study 1 and 2, in order to measure of self-objectification, participants filled out the Body Surveillance subscale of the Objectified Body Consciousness

scale (OBC, McKinley & Hide, 1996). The correspondent Body Surveillance index ($\alpha = .78$) was calculated by averaging participants' responses (after appropriate reversed coding) so that higher score represent higher level of body monitoring.

Body Dissatisfaction. Participants filled out an Italian adaptation (translated by the author and back translated by her supervisor) of the Body Image State Scale (BISS), developed and validated by Cash, Fleming, Alindogan, Steadman and Whitehead (2002). BISS is a well-known state scale that measures how one's body appearance is momentary evaluated. Participants were presented with 6 items, each associated by 9 statements, which investigate how participants felt and thought (at that moment) about their physical appearance, body size and shape, weight, physical attractiveness, and look. The 9 statements ranged from 1 (e.g. Right now I feel Extremely dissatisfied with my physical appearance) to 9 (e.g. Right now I feel Extremely satisfied with my physical appearance). We calculated a Body Dissatisfaction index ($\alpha = .84$) by averaging their responses to the 6 items, so that the higher the scores the higher was their momentary body dissatisfaction. (see Appendix for the scale)

Working Memory Test. Due to a technical problem, we could not use the SART for this experiment and thus chose a pencil and paper cognitive task. Participants performed a Categorization Working Memory Span Test (CWMS, Borella, Carretti, & De Beni 2007 adapted from De Beni, Borella, Carretti, Marigo & Nava, 1998). The CWMS test is very similar to the Listening Span Test (LST, Daneman & Carpenter, 1980), was developed to test the verbal working memory of adults, and it is not related to any gender stereotype. Participants' task is to listen to a series of list of words (read aloud by the experimenter), to tap their hand on the table whenever they hear an animal word and, at the end of the series, to recall the last word of each list in the correct order. Specifically, the number of lists of words ranged from 2 to 6. Therefore, participants had to recall from 2 (lower level) all the way up to 6 words (upper level). Each list contained 5 words (also controlled for familiarity) in the medium-high frequency range and

could contain 0, 1, or 2 animal nouns presented in random order in the list. The experimenter read the lists at a rate of 1 s per word, and every time participants heard an animal noun had to tap on the table (processing phase). This processing phase (i.e. knocking on the table) allows the experimenter to be sure that each word is semantically processed and that participant is paying attention not just to the last word of each list. The interval between the lists of words was 2 s. At the end of the series of the word lists participants had to recall the last word of each list in the correct order. An example of words list could be: *board, tree, turtle, oracle, house*. In this case participants had to knock on the table when they heard *turtle* and they also had to remember the word *house*. The test was finished when participants were unable to recall the words in the correct order in two of the three trials at any given level (lower level = 2 lists - higher level = 6 lists). We then calculated the number of correctly recalled words (Correct index), which could range from 0 to 60 and that is considered a measure of working memory capacity (see Borella, Carretti, & De Beni, 2007). We also calculated the number of tapping errors and also the number of intrusion errors (i.e. non-final words incorrectly recalled); however, given that no significant results were found on these last two indices they will not be further discussed.

Flow Experience scale. As in Study 2, participants filled out the Flow Experience State scale (Jackson and Marsh, 1996). In addition to the 5 subscales assessed in Study 2 (Concentration on task at hand, Challenge skill balance, Unambiguous feedback, Loss of self-consciousness, Transformation of time, see Study 2 Method), we also assessed Action awareness merging (4 items, e.g. "*I performed automatically*" $\alpha = .75$) Paradox of control (4 items e.g. "*I had a feeling of total control*." $\alpha = .83$) and Autotelic experience (4 items, e.g. "*I really enjoyed to perform the task*" $\alpha = .81$). We then calculated the 9 indices corresponding to each of the subscales by averaging participants' responses so that higher scores represent higher levels of flow experience for each subscale. Due to poor item-total correlation ($r < .14$) we decided to exclude one of the four items (item n°12, *It was no effort to keep my mind on the task."*) from the

computation of the Flow_Concentration index (four-items $\alpha = .71$; three-items $\alpha = .84$). For the same reason, item number 3 (*"It was really clear to me that I was doing well"*) was excluded (item-total correlation = -.07) from the Flow_Unambiguous feedback index (four-items $\alpha = .61$; three-items $\alpha = .79$). The internal consistency for each of the other scales was found acceptable (αs = .79-.90). (see Appendix for the scale)

Social Appearance Anxiety. To test the hypothesis that chronic level of appearance anxiety would moderate the effect of our manipulations on the DVs, after the experiment was finished (see Procedure for cover story) participants filled out the allegedly separate Social Appearance Anxiety scale (SAAS, Hart, Flora, Palyo, Fresco, Holle, & Himberg, 2008). The SAAS (16 items, "I am concerned people will find me unappealing because of my appearance") is a one-dimensional factor scale and was developed to assess "fear of situation in which one's overall appearance, including but not limited to body shape, may be evaluated" (Hart et al., 2008, p. 49). Responses were collected on 5-point Likert scales ranging from 1 = *not at all* to 5 = *extremely*. The scale was accurately translated in Italian by the author and back-translated by her supervisor (see Appendix for the scale). Participants' responses were averaged and a SAA (Social Appearance Anxiety) index was created ($\alpha = .94$) with higher scores indicating higher chronic social appearance anxiety. The two-ways ANOVA with Video condition (Sexually objectifying vs Control) and Type of focus (Body VS Control) as between factors revealed that SAA index was not affected either by the main factors ($F(1, 118) < 2.86$, $p > .093$) or by their interactions ($F(1, 118) < .75$, $p > .38$). Therefore, SAA index could be entered as a predictor on all the moderation regression analyses.

Internalization of the beauty ideals. Together with SAA, we also assessed participants' chronic level of internalization of the beauty ideal promoted by media with the Internalization subscale of the SATAQ-3 (9 items; Thompson et al., 2004; Italian adaptation by Stefanile et al., 2011 e.g. "I would like my body to look like the models who appear in magazines", see Method

study 2). Participants reported their response on a 5-point Likert scale ranging from 1 (*definitely disagree*) to 5 (*definitely agree*). We created the Internalization index (α = .95) by averaging participants' responses, so that higher scores reflect higher level of Internalization of the beauty ideal. Even though it was made clear to participants that the last questionnaires was unrelated to the video memory experiment (cover story), a 2 X 2 ANOVA revealed that the level of Internalization was affected by the Video condition ($F(1, 118) = 4.15$, $p = .04$, $\eta_p^{2.} = .04$), but not by Type of Focus condition ($F(1, 118) = 1.89$, $p = .18$, $\eta_p^{2.} = .01$). This is not surprising, given that the objectifying video condition actually activated the awareness of the standard of beauty promoted by Italian television. Therefore, the Internalization index could used as a moderator only in those analyses testing the relationship between Type of Focus condition and our DVs, but not in the analyses involving the Video condition manipulation.

Results

Self-objectification. We tested the effects of our manipulation performing a two-way ANOVA with Video Condition (Sexually objectifying VS Control) and Type of Focus (Body vs Control) as between-participant factors on Body surveillance. Both Video Condition ($F(1, 118) = 16.49$, $p = .001$, $\eta_p^{2.} = .12$) and Type of Focus ($F(1, 118) = 10.11$, $p = .002$, $\eta_p^{2.} = .08$) were significant. In line with predictions, participants exposed to the clip showing sexually objectifying television reported higher level of Body Surveillance ($M = 3.76$, $SD = 1.06$) compared to participants who watched the control video ($M = 3.01$, $SD = 1.03$). In the same vein, they reported higher levels of Body Surveillance when they had their body scrutinized by the experimenter via photographs (Body Focus condition $M = 3.69$, $SD = 1.13$) compared to when their body was not the focus of the photos (Control condition $M = 3.09$, $SD = 1.00$). However, the interaction between Video Condition and Type of Focus was not significant ($F(1, 118) = .008$, $p = .93$, $\eta_p^{2.} = .001$), suggesting that the two factors worked independent of each other to affect the level of self-objectification. We then conducted two separate multiple regression

analyses to test the possible moderating role of the SAA index and the Internalization index respectively. From the moderation analyses, however, only two separate significant main effects of SAA ($\beta = .43, p = 001$) and Internalization ($\beta = .40 , p = 001$) emerged. Therefore, regardless of Type of Focus or Video condition, the higher the level of either Social Appearance Anxiety or Internalization of the beauty ideals, the higher the level of Body Surveillance.

Body Dissatisfaction. From the 2 (Video condition: Sexually objectifying vs Control) X 2 (Type of Focus: Body Focus vs. Control) ANOVA analysis neither the main effects ($F(1, 118) < .47, p > .40, \eta_p^{2.} < .004$) nor the interaction Video X Type of Focus were found to be significant ($F(1, 118) = .12, p = .73, \eta_p^{2.} = .001$). We therefore additionally tested the moderating role of both Internalization of the beauty ideal and Social Appearance Anxiety with two separate multiple regression analyses. Specifically, given that Internalization was affected by Video condition but not by Type of Focus (see Method for related discussion), in the first multiple regression only Type of Focus (0 = Control, 1 = Body Focus) and Internalization (continuous, centered) as well as their two-ways interaction were entered as predictors of Body Dissatisfaction. As it can also be seen in Table 1, the interaction between Internalization and Type of Focus condition was statistically significant ($\beta = .35, t = 2.29, p = .02; \Delta R^2 = .04, p = .02$, Adjusted $R^2 = .06$; $F(3, 118) = 3.62, p = .02$), indicating that Internalization was a significant moderator of the Body Focus manipulation on Body Dissatisfaction.

As it can be seen in Figure 1, in general the higher the level of Internalization, the higher the level of participants' Body Dissatisfaction. Moreover, it can be seen that participants with lower level of internalization (1 *SD* below the mean) reported higher level of Body Dissatisfaction in the Body Focus condition ($b = 4.57$) compared to participants in the control condition ($b = 4.39$) whereas participants with higher level of Internalization (1 *SD* above the mean) were not affected by the Type of Focus condition at all (+ 1*SD* = 5.09, - 1*SD* = 5.17). In other words, participants with lower level of internalization were the ones affected by the

condition of being scrutinized, whereas participants with higher internalization's levels reported significant higher level of body dissatisfaction regardless the type of focus.

Table 1.
Study 3. Multiple Regression Analysis showing the Interaction of Internalization and Type of Focus Condition Predicting Body Dissatisfaction.

•	*B*	*SE B*	*β*	R^2	ΔR^2	*ΔF (dfs)*
Step 1 (simple predictors)				.04	.04	2.72 (2, 119)
Type of Focus	-.23	.24	-.09			
Internalization	.27	.12	.20			
Step 2 (two-way interactions)				.08	.04	5.24* (2, 119)
Type of Focus X Internalization	.59	.26	.35*			

*Note: N = 122; * p < .05; ** p < .01; *** p < .001*

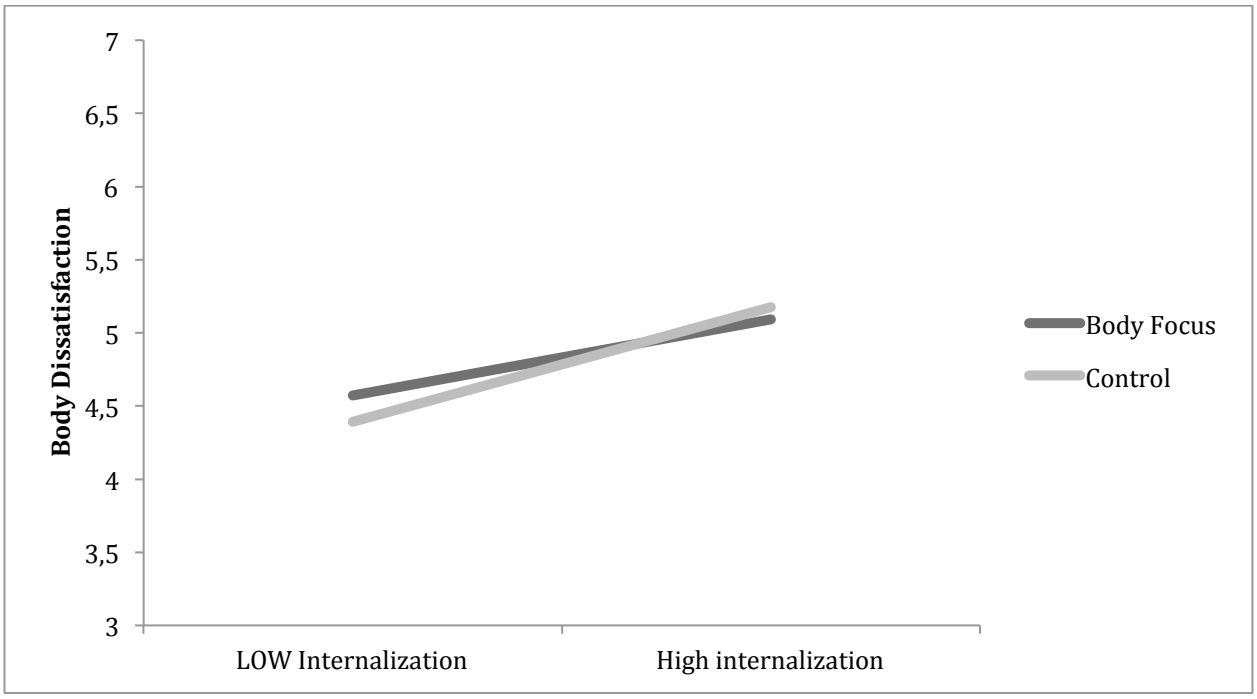


Figure 1. Study 3. The relation between Body Focus Conditions and Body Dissatisfaction at High (1SD above mean) *and Low (1SD below mean) levels of Internalization of Sociocultural Beauty Standars. The Body Dissatisfaction scale ranged from 1 to 9.*

On the contrary, the regression analysis testing the moderating role of Social Appearance Anxiety (SAA) only led to a significant main effect of SAA ($\beta = .57$, $p = .001$), so that the higher the level of chronic Social Appearance Anxiety the higher the level of Body Dissatisfaction.

Working Memory Capacity. Given that the two-way ANOVA with Video condition and Type of Focus as between participants factors on Correct Recalls did not lead to any significant effect ($F(1, 118) < 1.41$, $p > .24$, $\eta_p^{2.} < .01$), we therefore proceeded to explore the additional moderating role of Internalization and SAAS. To test the effect of SAA, a stepwise regression was conducted on Correct Recalls. Specifically, in step 1 the main effects of Video condition (0 = Control, 1 = Sexually Objectifying), Type of Focus (0 = Control, 1 = Body Focus) and SAA (continuous, centered) were entered, whereas in step 2 and 3 all two-ways interactions as well as the three-way interaction were entered (see Table 2 for complete model).

Table 2. *Study 3. Multiple Regression Analysis showing the Interaction of Social Appearance Anxiety (SAA), Video Condition and Type of Focus condition Predicting the Correct Recalls on the Working Memory Task*

	B	*SE B*	*β*	R^2	ΔR^2	*ΔF (dfs)*
Step 1 (simple predictors)				.04	.04	1.41(3, 120)
Video Condition	-.29	1.45	-.03			
Focus Type	-1.79	1.45	-.16			
SAA	.59	1.16	.09			
Step 2 (two-way interactions)				.12	.09	3.647* (6, 120)
Video condition X Focus Type	2.01	2.04	.16			
Video condition X SAA	3.36	1.25	.32**			
Focus Type X SAA	-1.79	1.27	-.20			
Step 3(three-way interaction)				.12	.003	.45 (7, 120)
Video condition X SAA X Focus Type	-1.72	2.55	-.13			

*Note: N = 122; * p < .05; ** p < .01; *** p < .001*

As it can be seen from Table 2, the two-ways interaction between Video condition and SAA was statistically significant ($\beta = .33$, $t = 2.69$, $p = .008$; $\Delta R^2 = .09$, $p = .02$, Adjusted $R^2 = .07$; $F(6, 114) = 2.58$, $p = .02$), thus demonstrating that Social Appearance Anxiety played a moderating role on the relation between Video condition and participants' working memory capacities. As it can be seen in Figure 2, participants with lower level of SAA (-1*SD* below the mean) were more affected by the Video condition, reporting lower level of Correct Recalls ($b = 4.07$) when exposed to the Sexually Objectifying video compared to the Control video ($b = 7.72$). On the contrary, participants with higher level of SAA (+1 *SD* above the mean) reported slightly higher Correct Recalls when watching the Sexually Objectifying video ($b = 11.97$) compared to the Control video condition ($b = 8.90$). In other words, contrary to expectations, the Sexually Objectifying video affected to a greater extent the working memory capacity of participants with lower level of Social Appearance Anxiety (SAA, $b = 4.07$) compared to those participants with higher level of SAA ($b = 11.97$).

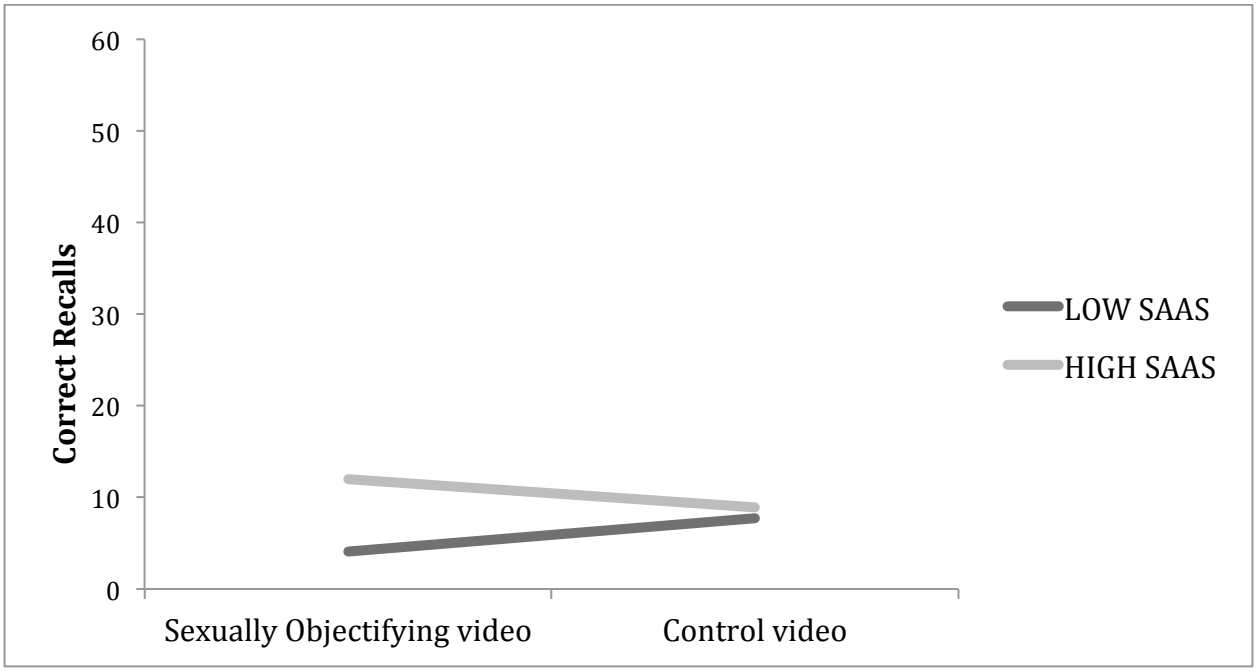


Figure 2 - Study 3. *The relation between Video Condition and Correct Recalls at High (1SD above mean) and Low (1SD below mean) levels of Social Appearance Anxiety (SAAS).*

On the contrary, the regression analysis testing the moderating role of Internalization of the beauty ideal on the relation between Type of Focus and Correct Recalls did not lead to any significant results ($\beta < .16, p > .29$; $\Delta R^2 < .002, p > .46$).

Flow experience. We conducted a series of separate 2 (Video condition: Sexually Objectifying vs. Control) X 2 (Type of focus: Body focus vs. Control) ANOVAs on each of the 9 subscales of the Flow experience. We hereby reported only the significant effects emerged on the Flow_Concentration index. Indeed, we found only a main significant effect of Video condition ($F(1, 118) = 5.40$, $p = .02$, $\eta_p^{2.} = .04$), on participants level of Concentration showing that participants who had watched the Sexually Objectifying video reported to be more concentrated on the task ($M = 3.87$, $SD = .90$) compared to participants exposed to the control video ($M = 3.48$, $SD = .94$). However, the Type of Focus and the two-way interaction (Video x Type of focus) were not significant ($F(1, 118) < .35$, $p > .98$, $\eta_p^{2.} < .0001$), suggesting that the level of Concentration was not dependent on the type of Focus, but only on Video condition. As for the other DVs, we conducted two separate multiple regression analyses to test the possible moderating role of SAA and Internalization respectively. However no significant results were found ($\beta < .26$, $p > .11$): regardless the level of SAA or Internalization participants reported higher level of concentration after the Sexually Objectifying video compared to the Control video. As for the other indices of Flow, consistent with Study 2, even though it was not affected by conditions, we found a significant correlation between Flow_Challenge Skill Balance and the Correct Recalls ($r = .30, p = .001$).

Discussion

The strongest feature of Study 3 has been to investigate for the first time the direct effect of sexually objectifying media on cognitive resources and flow experience. Moreover, it is one of the few studies available (together with the present Study 1 & 2, Gervais, et al., 2011, and Gay & Castano, 2012) that has tested the objectifying gaze (in this case female) in an actual

interpersonal interaction context and it was the first to test the joint effects of two concurrent objectifying experiences in predicting negative outcomes.

Several interesting results have emerged. Regarding self-objectification, in line with predictions, we found that participants that had their body scrutinized (by a female experimenter) or that were exposed to sexually objectifying clips from television reported higher level of self-objectification (manifested as body surveillance) compared to participants in the control conditions. Interestingly, we did not find any significant interaction effects between the sexually objectifying gaze and the sexually objectifying television exposure either on body related concerns (body surveillance and dissatisfaction) or cognitive outcomes (working memory capacity of flow), suggesting that these two type of objectifying experiences worked separately rather than in interaction or in an additive way.

One of the most interesting results concerned the moderating role of internalization of the societal beauty ideal on body dissatisfaction. Interestingly, we found that having the body gazed by a woman had an impact especially on women with chronically lower levels of internalization, whereas women with higher internalization levels were not affected by the gaze, but instead reported a stable chronically high level of body dissatisfaction. Internalization of the societal beauty standard has been already shown to promote women's body dissatisfaction and concerns (e.g. Thompson & Stice, 2001, see Cafri, Yamamiya, Brannick, & Thompson, 2005 for a review). Our results further extend this notion demonstrating what we might call "the double sword of internalization": on one hand, women who do not rely very strongly on the standards of beauty promoted by mass media to evaluate themselves were the ones more affected by the situational effect of the gaze (even by a female counterpart); on the other hand, paradoxically, those women who have internalized the societal ideal to a greater extent are not situationally affected by the gaze, but are likewise the ones who report the greatest levels body dissatisfaction in a stable way.

Another interesting result of Study 3 concerns the effects of sexually objectifying media on women's cognitive performance after the exposure to a clip in which women are portrayed as sexual objects. Unexpectedly, we found that such objectifying portrayals lead to a consistent impairment in working memory capacity for those women with lower social appearance anxiety as compared to women with higher appearance anxiety exposed to the same video clip. Moreover women exposed to the sexually objectifying video clip reported to be more able to concentrate on their performance as compared to women who watched the control video. We wondered what such counterintuitive findings might mean. Given that to the best of our knowledge the effects of exposure to sexualized media on cognitive performance have never been tested, we can only advance some speculations. First of all, drawing from Attentional Control Theory and literature (Eysenk, Derakshan, Santos, & Calvo, 2007), it is known that anxiety usually impaired the *efficiency* (e.g. latency of correct responses) but not the *effectiveness* (i.e. response accuracy) of cognitive performance. Consistently, several studies have reported differences in performance between low and high anxious people only for response times (with slower RT for anxious people), but not in the accuracy of the performance (e.g. Ikeda, Iwanaga, & Seiwa, 1996, see Eysenk et al., 2007 for a review), and high anxious people have been shown to even outperform low anxious people's accuracy in some cases (e.g. when the task stimuli are threat related, see Eysenk et al., 2007 for a discussion). Therefore, the notion high anxiety = impaired cognitive performance is not always true. More importantly, it has also been shown that high-anxious individuals might use compensatory strategies such as increase their mental effort (e.g. Dornic, 1977, Hadwin, Brogan & Stevenson, 2005, Eysenk et al., 2007 for related discussion). Therefore, taking all these considerations together, we might speculate that women with higher social appearance anxiety might also be the ones that have developed more compensatory strategies. Therefore, when exposed to clip of sexually objectifying television they counter-reacted more effectively by increasing their level of

concentration and effort, thus outperforming less anxious women. However, no moderating role of trait social appearance anxiety on concentration was found in the present study and a measure of performance efficiency was not included, which might have been helpful to understand the mechanism. Therefore, these speculations drawn from the Attentional Control Theory should be taken with the caution.

A second possibility for the result above is that, given that appearance anxiety and body concerns are positively predicted by the amount of exposure to sexualized media promoting unrealistic ideals (e.g. Brown & Dittmar, 2005, Halliwell & Dittmar, 2004, Grabe, Ward, & Hyde 2008 for a review), our results might simply be the reflection of media consumption. One possibility is that high trait appearance anxious people are also the ones that are more habitually exposed to sexually objectifying images and, thus, are not strongly affected by watching an objectifying clip, a habitual scenario for them. At the same time, if lower appearance anxious women are also the ones chronically less exposed to objectifying media, the sexually objectifying video should have a stronger impact on them, thus impairing their working memory capacity. However, since a measure of habitual exposure to television and media in general was not included in the present study, this possibility could not be tested. Future studies should further explore the detrimental effect of sexually objectifying media by also testing the role of habitual exposure to objectifying media. Overall, these last findings on the role of anxiety, like the results on the moderating role of internalization of the beauty ideal on body dissatisfaction, are especially worrisome because they suggest that, situational exposure to sexually objectifying television impairs more strongly the cognitive resources of lower appearance anxiety women, therefore suggesting that higher social appearance anxiety might "protect" women's cognitive performance from such situational effects. However, because the literature shows that high appearance anxiety is also linked with negative well-being outcomes such as eating disorder symptoms and depressive mood (e.g. Tiggemann & Kuring, 2004; Tiggemann & Lynch, 2001;

Szymanski & Henning, 2007; see Moradi & Huang, 2008 for a review), we might speculate that higher social appearance anxiety might lead, on the one hand, to an improvement in performance in objectifying conditions, as in the present study, but on the other hand to detrimental effects on well-being and eating disorder proclivity, as shown by previous studies. It would be interesting to include such measures of well-being in a future study using the same design as the present one.

Overall, the findings of Study 3 extended our knowledge and highlighted that social appearance anxiety as well as the societal beauty norms play important (negative) roles on women's cognitive and psychological well-being. As in Study 1 and 2, the effect sizes of some of the results were also quite small. However, these findings are still interesting if we consider that 3 minutes of exposure to objectifying television, or having the body scrutinized for a very short period of time, is a very small amount compared to the daily exposure to sexually objectifying media messages or the possibility of receiving a sexual gaze, so common in everyday life. Therefore, paradoxically, these small results emerged across all three studies suggest that a more "realistic" amount of exposure to sexual objectification, as faced by many women in real life, might produce possibly stronger effect on women's psychological and cognitive responses.

In conclusion, the first three studies provided novel evidence that demonstrates the causal chain between sexually objectifying experiences and adverse psychological and cognitive outcomes for women. They also highlight important individual differences, such as internalization of the sociocultural standard of beauty and the level of attraction towards the interaction partner, that might modulate the responses to the situational experiences that future studies should take into consideration. We recommend that future endeavors will increase our knowledge by further investigating the effects of sexual objectification in actual interaction settings.

Chapter 3 – Sexually Objectifying Media and Collective Action

As already introduces above, a growing body of research highlights serious negative implications deriving from exposure to sexually objectifying media content. Research has shown that sexually objectifying media change the way in which women are treated and perceived by others and by themselves. From the perceiver's perspective, it has for example been demonstrated that both men and women dehumanize sexually objectified female targets as they appear in magazines (e.g., Puvia & Vaes, 2013; Vaes et al., 2011), and men exposed to sexually objectifying images are more likely to sexually harass women, to endorse traditional masculinity ideology and legitimize anti-women attitudes and violence (e.g., Galdi, Maass & Cadinu, 2014; Mackay & Covell, 1997; Ward, Merriwether, & Caruthers, 2006; Malamuth & Check, 1981; Milburn, Mather &, Conrad, 2000). From the target's perspective, as highlighted above, research has shown that exposure to sexually objectifying media may increase body image concerns, self-objectification as well as negative body emotions and eating disorder (e.g., Abramson & Valene, 1991; Aubrey, 2006; Aubrey, 2007; Grabe, Ward &, Hyde, 2008; Hargreaves and Tiggemann, 2004; Holmstrom, 2004).

Given the serious consequences of media sexual objectification, in Study 4 we posed the question of whether women and men would be willing to react against female sexual objectification. Because to the best of our knowledge no research has addressed this topic to date, the goal of the present study was to investigate the effects of exposure to sexually objectifying media on people's willingness to participate in collective action. Crucially, we were interested in testing whether the engagement in collective action could be solicited by the mere exposure to sexually objectifying media per se, or whether a critical point of view is necessary to motivate people to act. Indeed, among the intervention strategies proposed to help women resist

sexual objectification and self-objectification, there is the promotion of a critical view of mass media depiction of women (Tylka & Augustus-Horvath, 2011; Calogero & Tylka, 2014). Therefore, in Study 4 we also tested whether the exposure to a critical commentary of sexually objectifying media might stimulate both women and men to react and actively protest to improve the female image in media, thus helping break the vicious cycle of sexual objectification. In the next sections, we present a brief review of the main results of the present study.

Sexually Objectifying Media

As also highlighted by the 2007 report of the APA Task force on Sexualization of Girls, many researchers have demonstrated that women are the privileged targets of sexual objectification in the media. For example, Hatton and Trautner (2011) have analyzed the content of 1006 covers of the Rolling Stone magazine between 1967 and 2009 and have found that sexually objectifying images have generally increased over the years, but female bodies are still more frequently sexually objectified than male bodies. Interestingly, the recent increment of covers that portray naked (or almost naked) women in very explicit sexual ways led the authors to introduce the term "hypersexualization" (Hatton & Trautner, 2011). In a similar vein, a recent report on gender inequality (Smith et al., 2013) analyzed 500 top-grossing films released between 2007 and 2012, and showed that female characters are not only underrepresented with only 28% women out of 4475 speaking characters, but as much as one third of them are shown in sexually objectifying ways (e.g. wearing sexually revealing clothes or partially naked). This ever-growing trend is even faster for teenagers, with over one-half of female teens represented in a sexually objectifying manner (Smith et al., 2013).

In this context, Italian television fits well with the western trend described above. For example, within the European project "Women and media in Europe", the Italian Center of Social Studies and Investments (CENSIS, 2006) analyzed the content of 598 television programs from the seven most important Italian broadcast networks, and found that women are mostly

depicted as "showgirls", such as actresses (56.3%), singers (25%) and models (20%). Furthermore they are more likely to be associated with fashion and entertainment (31.5%), or physical violence (14.2%), but rarely represented in the context of politics (4.8%), business (2%) or culture (6.6%). In addition, in Italian TV shows the host is often a man (58%), and the style of conduction is mischievous (21.6%) and a bit aggressive (21.6%). At the same time, women are often scantily dressed (36.9%) and the camera focuses frequently on their bodies underlining their sensuality in a voyeuristic way (30%), instead of highlighting their artistic abilities (15.7%). Overall, Italian TV tends to show women lightly dressed, in marginal roles, and as mere sexual decoration.

Concerned with the increase of sexually objectifying and degrading portrayals of women in Italian TV, in 2009 a group of journalists led by diversity management expert Lorella Zanardo produced a powerful documentary titled "Women's Body" (*Il Corpo delle Donne*; Zanardo, Chindemi, & Cantù, 2009). The documentary compiled a stream of clips from popular Italian television programs and exposed the issue of sexual objectification and exploitation of women on television. In a key passage of the documentary, Zanardo comments on some particularly degrading and sexually objectifying clips: "Why aren't Italian women out on the streets protesting against this way of being represented on TV?". With this documentary, indeed, Zanardo and colleagues aimed at raising the awareness of the general public and encouraging people to participate in collective action to stop the widespread use of sexually objectifying portrayals of women in the media. Interestingly, although in recent years the number of gender equality campaigns have grown globally (e.g, "If not now, when?", *HeForShe* UN Women campaign), to this date very little is known about the actual effects of such campaigns on women and men's willingness to participate in collective action and gender activism. Therefore, in the present study we tested the reactions of men and women toward the Italian Zanardo documentary

against sexually objectifying media, as well as toward the same media content devoid of the documentary commentary.

Gender and Collective Action

Collective action can be defined as actions (e.g. petitions, public protests, boycotts etc.) by a group of people that are aimed at improving the conditions of the group (van Zomeren, Iyver, 2009). Different social sciences have been interested in the study of collective action and motivation to participate in social protest (see van Zomeren, Postmes &, Spears, 2008, for a review on the psychological field) since collective action is thought to be one of the most effective ways for disadvantaged group members to regain social equality and achieve social change and justice (Wright & Baray 2012; Wright & Lubensky 2009; van Zomeren, Iyver, 2009). In the western world women, even though they are not a numerical minority, are recognized as a socially disadvantaged group because of their lower status, power and opportunities that contribute to overall gender inequality (Barreto, Ryan, & Schmitt, 2009). It is therefore important to investigate the factors that could prevent or motivate women and men to take collective action to improve the social condition of women. Although Williams and Witting (1997) showed that men are less prone to support feminist goals as compared to women, more recent research has highlighted a growing involvement of men in activism toward gender equality, especially antiviolence activism (e.g. White Ribbon Campaign; Flood, 2001; Flood, 2005). Moreover, Bongiorno and colleagues have recently shown that using sexually objectified female targets to advertise PETA (i.e. People for the Ethical Treatment of Animal Organization) actually reduces men's intention to support the ethical organization compared to non-objectifying advertisements (Bongiorno, Bain, & Haslam, 2013). Still, to our knowledge no research has investigated which factors may elicit men's involvement in gender collective action. In contrast, some research is available on women's gender collective action. For example, a recent study has investigated the relation between self-objectification, gender system

justification, and engagement in social activism (Calogero, 2013). Results showed that when a state of self-objectification is activated, women are less willing to engage in social activism because they are more likely to support the gender status quo. On a similar vein, Becker and Wright (2011) have demonstrated that exposure to hostile sexism increases women's willingness to participate in collective action because it decreases gender system justification, increases negative emotions, and decreases the perception of the advantages of being a woman (Becker & Wright, 2011). Similarly, Ellemers and Barreto (2009) have shown that the manifestation of old-fashioned sexism is more likely to be perceived as a form of inequality, and it provokes among women more anger, support for collective action, intention to protest, and collective protest behavior, as compared to modern sexism. More generally, life experiences, such as taking a women's study class, having a mother that considers herself to be a feminist or the experience of sexist events, have been shown to be positive predictors of women's involvement in collective action (Nelson, Liss, Erchull, Hurt, Ramsay, Turner & Haines, 2008; Liss, Crawford &, Popp, 2004).

In sum, overt sexism overall seems to elicit women's collective action responses. However, no study to date has explored whether this tendency to react would also occur in front of sexually objectified portrayals of women in the media. To investigate this issue, in the present study participants were exposed to objectifying TV clips in which female assistants were presented as sexual objects and male presenters made sexist comments and humiliated them with degrading and sexist jokes. One goal of the present study was to test the collective action responses of men and women to such sexist and degrading scenarios.

Study 4

To our best knowledge, no research has investigated the effects of sexually objectifying media on people's willingness to engage in collective action against such portrayals of women.

Moreover, even though among the intervention strategies to help resist sexual objectification consequences there is, indeed, the promotion of a less passive media consumption soliciting a critical view on the viewer (e.g. Tylka & Augustus-Horvath, 2011), no research to date have actually investigated the actual benefits of such strategies on people's psychological and cognitive responses. Therefore, the main goal of the present study was to explore the effects of exposure to sexually objectifying media, as well as a reasoned critique of such media content, on gender collective action inclination and behavioral intentions to participate in a public rally against such predominant media representation of women that emphasizes their sexuality. Thus, participants were exposed to images of sexually objectifying TV programs (No-narrative Voice video condition), or to the same scenes of sexually objectifying TV programs including background comments against the degrading portrayal of women on TV from the original documentary "Women's body" (Zanardo et al., 2009; Narrative Voice video condition), or to a nature TV documentary (Control video condition). Our hypothesis was that, after being exposed to the Narrative Voice video, participants, especially women, would express a greater willingness to engage in collective action and would express stronger actual behavioral intention to support the cause. Furthermore, we predicted that proclivity to engage in collective action would mediate the relation between experimental condition and participants' behavioral intention to support the cause. Finally, in the study we included Social Dominance Orientation (SDO), which can be defined as the tendency to believe that some people or groups are inherently superior or inferior to others or, in other words, to approve inequality among social groups (Pratto, Sidanius, Stallworth & Malle, 1994). Given that SDO has been shown to be negatively linked with support of women's rights (Pratto et al., 1994) we investigated its potential link with both the willingness to engage in collective action and the behavioral reaction. Specifically, in line with Pratto and colleagues (1994) we hypothesized that higher level of SDO would negatively correlate with both collective action proclivity and actual behavioral support

for the cause so that the more participants approved inequality among groups the less they would engage in collective action that aims at improving the image of women on TV. Overall, if our hypotheses were supported, this study would provide important evidence that critical thinking needs to be triggered before people will collectively react against objectifying TV portrayals.

Method

Participants. One hundred and fifty-nine residents of Northern Italy (78 males; 81 females) were recruited by one of two female experimenters either at different university libraries and study rooms, or among neighbors and acquaintances (for a similar procedure see, Galdi, Maass, & Cadinu, 2014). The sample (M_{age} = 32.50 years, *SD* = 12.33 years) was composed of 43 (27%) University students, 47 (30%) blue-collar workers, 44 (28%) white-collar workers, and a remaining 15% (25 participants) including housewives, unemployed, and professionals. All participants participated in the study voluntarily without monetary compensation. The experiment was run in a quiet laboratory at the University where participants completed the task individually. The procedure of the experiment and the main dependent variables were administered in the same order in which they are presented below.

Procedure. When participants arrived at the lab, they were informed that the study was aimed at investigating mass media communication and their main task would be to watch a brief video clip and to evaluate it. Therefore, after completing a paper-and-pencil questionnaire including demographic information, television viewing habits (i.e., Exposure to Sexist and Non-sexist TV programs), and a scale allegedly measuring personal characteristics (which was in reality the Social Dominance Orientation scale), participants were invited to watch one of three brief video clips (i.e., Narrative Voice, No-narrative Voice, Control). Immediately afterwards, to support the cover story, participants filled out a questionnaire to evaluate the video and rated their current mood. Later, the experimenter asked participants to perform an allegedly separate set of tasks for an unrelated experiment on attitudes and effectiveness of communication via

Internet. Therefore, participants were asked to respond to the items of a scale on social perception (i.e., Collective Action scale) and, afterwards, they were shown a leaflet including an on-line petition promoted by a (fictitious) no-profit association, allegedly fighting against the objectification of women in society. After reading the petition, participants were instructed to indicate whether they would mind to support the cause of the association. At the end of the experiment, participants were fully debriefed and thanked for their participation.

Materials.

Exposure to Sexist and Non-sexist TV programs. To assess participants' habitual exposure to televised sexist and non-sexist programs, we used a list of 12 popular Italian TV programs, 6 pre-tested as being sexist and 6 pre-tested as neutral. The sexist TV programs ("Ciao Darwin", "Chiambretti Night", "La pupa e il secchione", "L'Eredità", "Viva Las Vegas", "Striscia la Notizia") were chosen because they shared (i) the presence of men in the role of hosts, (ii) the presence of women in the role of merely decorative elements, and (iii) topics of conversation that were mostly sexist (e.g., objectifying comment, sexual remarks, sexist jokes). Conversely, the non-sexist TV programs ("Anno Zero", "Geo&Geo", "La prova del cuoco", "Pomeriggio Cinque", "Zelig", "Verissimo") were selected because they shared (i) the presence of women in leading roles (hosts, anchorwomen), and (ii) topics of conversation were not sexist. Participants were asked to report how often they watched each program on 4-point scales ranging from 1 (*Never/I don't Know the program*) to 4 (*Always*). Indices of Exposure to Sexist TV programs and Exposure to Non-sexist TV programs were calculated by averaging the responses on the 6 sexist and the 6 non-sexist TV programs. Therefore, for both indices, higher values reflect higher habitual exposure.

Social Dominance Orientation scale. The Social Dominance Orientation scale (SDO), originally developed by Pratto, Sidanius, Stallworth, and Mallet (1994), is one of the most common measures used to assess individuals' belief that some people or groups are inherently

superior or inferior to others and the degree of approval of unequal group relationships. Participants filled out an Italian adaptation of the scale (Aiello, Chirumbolo, Leone, & Pratto, 2005) composed of 9 items related to the approval of inequality (e.g., *Some groups are simply more worthy than others*) and 9 items related to approval of equality among social groups (e.g., *It would be nice if there was equality among all social groups*). None of the items referred directly to gender. Responses were provided on 5-point scales ranging from 1 (*Not at all*) to 5 (*Very much*). Indices of SDO were calculated by reverse-coding the 9 items indicating approval of equality and then averaging responses on the 18 items (Cronbach's $\alpha = .89$). Higher values of the indices reflect higher social dominance-oriented beliefs.

Experimental Manipulation. Three video clips (Narrative Voice, No-narrative Voice, Control) were employed. For the Narrative Voice video condition, a brief extract of the Italian video-documentary "Women's body" (Zanardo et al., 2009; also available with English subtitles) was used. The video-documentary "Women's body" included scenes from popular Italian TV programs showing provocatively dressed or posed women, as well as scantily clad female assistants who allegedly help male presenters conduct the show. In some scenes the male presenter also makes sexist comments and humiliates the female assistant with degrading and sexist jokes. Importantly, the Narrative Voice video included the same background comments of the original documentary about the exploitation of women on Italian television. For example, in some key passages of the video the author comments, "The presence of women on television is more a question of quantity than quality. The women portrayed seem to go along with men's desires and give up any possibility of being an equal "other". They are reduced and reduced themselves to just a sexual object, fighting the passing of time by undergoing all sorts of freak transformations, being forced to stay within a frame, mute, or to present TV shows which require no competence whatsoever". For the No-Narrative Voice condition the same video clip as in the Narrative voice condition was used, with the exception that background comments were replaced

by pop music. Finally, the Control condition video included a nature documentary on Tundra's birds accompanied by soft music. The three video clips were approximately 3-minutes long.

Evaluation of the videos. After watching the video clip participants judged how *interesting, pleasant,* and *well edited* it was on scales ranging from 1 *(Not at all*) to 7 *(Very much*). A score of Overall Video Evaluation was calculated by averaging the responses on the 3 items (Cronbach's α= .71).

Mood. To assess mood, a line ranging from 0 (*very good*) to 14 cm (*bad*) was used. Participants were asked to respond by marking a cross on the point of the continuum corresponding to how they felt at that moment.

Collective Action scale. To measure participants' proclivity to engage in Collective Action we constructed a scale including six collective action-related dimensions (taken from van Zomeren, Spears, Fischer, & Leach, 2004; Mallett, Huntsinger, Sinclair, & Swim, 2008). In its current form, the scale contained 14 items assessing: Perspective taking (2 items; e.g., *I can understand how Italian women feel in this discriminatory condition*), Guilt (2 items; e.g., *Women should feel guilty about the sexist attitudes against women)*, Anger (3 items; e.g., *The portrayal of women in Italian television makes me angry*), Action support (2 items; e.g., *I think that most women would be inclined to act in order to change the general social condition of their group*), Perception of group's efficacy to achieve social change (2 items; e.g., *I think that women all together can change the general social condition of their group*), and Actual collective action (3 items; e.g., *I want to do something together with other women to protest against the condition in which we are relegated*). For male participants, some items of the scale were properly adapted (e.g., *Men should feel guilty about the sexist attitudes against women; I want to do something together with other men to protest against the condition in which women are relegated*). Instructions asked participants to reflect on the general condition of women in Italy and to indicate how much they agreed with each item on a scale ranging from 1 (*Not at all)* to 7 (*Very*

much). The Collective Action index was calculated by averaging the responses to the 14 items, such that higher values reflect a greater willingness to engage in collective action (Cronbach's α= .94). (see Appendix for the scale)

Behavioral Reaction. To obtain a behavioral measure of the effect of the videos, participants were presented with a leaflet showing an on-line petition promoted by a (fictitious) non-profit association (*Not Just Dolls*), allegedly fighting "against the widespread objectification of women in society". After giving a short description of the main purpose of the association and providing website information, the petition concluded: "*We are tired of viewing soubrettes and girls treated like showpieces on TV. We are saying ENOUGH to this use of women. Not all of us are like that, we are not dolls! Give us our dignity back!".* After reading the petition, participants were asked to respond "yes" or "no" to the following three questions: (i) I am going to sign the web petition promoted by the association; (ii) I will participate in the rally scheduled for next week; (iii) I will become a member of the association. "Yes" responses were coded 1 whereas "no" responses were coded 0. A single score of Behavioral Reaction was calculated by adding participants' responses to the three questions, so that indices could range from 0 (i.e., support to none of the three parts of the petition) to 3 (i.e., support to all three parts of the petition).

Results

Descriptive Analyses

Descriptive statistics for all the measures, separately for women and men and across experimental conditions are presented in Table 1 and Table 3. Table 2 presents zero-order correlations for Exposure to Sexist TV programs, Exposure to Non-sexist TV programs, Social Dominance Orientation, Collective Action, and Behavioral Reaction.

Overall, as shown in Table 1, female and male participants showed similar levels of habitual Exposure to Sexist TV programs, whereas indices of Exposure to Non-Sexist TV programs were higher for women, as compared to men, $t(157) = 2.80$, $p = .006$.

Table 1.

Study 4. Exposure to Sexist TV programs, Exposure to Non-sexist TV programs, Social Dominance Orientation, Collective Action, Behavioral Reaction, Overall Video Evaluation and Mood separately by Gender.

	Women (n = 81)		Men (n = 78)	
	M	*SD*	*M*	*SD*
Exposure to Sexist TV programs	1.92_a	.44	1.97_a	.45
Exposure to Non-sexist TV programs	2.09_a	.57	1.86_b	.44
Social Dominance Orientation	2.27_a	.70	2.47_a	.70
Collective Action	4.23_a	1.48	3.46_b	1.28
Behavioral Reaction	1.27_a	1.28	1.00_a	1.14
Overall Video Evaluation	3.66_a	1.45	3.62_a	1.31
Mood	8.00_a	4.11	5.64_b	3.34

Note. Means across rows that do not share the same subscript are significantly different from each other at the $p \leq .05$ level (Bonferroni-adjusted).

Moreover, participants who reported to watch more Sexist TV also tended to consume more Non-sexist TV programs (see Table 2), which could simply reflect higher levels of TV exposure regardless of specific content. Interestingly, for both male and female participants greater Exposure to Sexist TV programs was associated with lower levels of Collective Action. Moreover, for female, but not male, participants, greater Exposure to Sexist TV was linked with a reduced intention to take action against objectifying portrayal of women in the media (i.e., Behavioral Reaction). Importantly, Collective Action and Behavioral Intention to protest were related to Exposure to Sexist TV, but were unrelated to general TV consumption. Furthermore (see Table 1), no gender differences on participants' scores of SDO emerged ($t(157) = 1.75$, $p = .08$). Finally, as shown in Table 2, in line with predictions the index of SDO was negatively related to the indices of Collective Action and Behavioral Reaction, thus suggesting that the

more participants endorsed the beliefs in the legitimacy of intergroup inequality the less they were willing to engage in collective action and to react against the objectification of women. [1]

Table 2.

Study 4. Correlations between Exposure to Sexist TV programs, Exposure to Non-sexist TV programs, Social Dominance Orientation (SDO), Collective Action, and Behavioral Reaction separately by Gender.

	1	2	3	4	5
Women (n = 81)					
1. Exposure to Sexist TV	-				
2. Exposure to Non-sexist TV	.62***	-			
3. SDO	.13	-.16	-		
4. Collective Action	-.38**	-.12	-.64***	-	
5. Behavioral Reaction	-.34**	-.07	-.45***	.57***	-
Men (n = 78)					
1. Exposure to Sexist TV	-				
2. Exposure to Non-sexist TV	.49***	-			
3. SDO	.12	-.09	-		
4. Collective Action	-.22*	-.004	-.63***	-	
5. Behavioral Reaction	-.03	.10	-.26*	.58***	-

*Note: * $p < .05$; ** $p < .01$; *** $p < .001$*

[1]We also explored whether Social Dominance Orientation (SDO) and chronic Exposure to Sexist TV programs (EST) would moderate the effects of Gender and Condition on both Collective Action and Behavioral Reaction. Therefore a series of multiple regressions were performed including these two potential moderators. However, the three-way interaction between SDO, Condition and Gender did not lead to a significant improvement in the explained variance both on the Collective Action proclivity ($\Delta R^2 = .02$, $p > .08$) and on Behavioral Reaction ($\Delta R^2 = .02$, $p > .10$), thus disconfirming a moderating role of SDO. Similarly the three-way interaction between EST, Condition and Gender did not support the moderating role of Exposure to Sexist TV either on Collective Action proclivity ($\Delta R^2 = .007$, $p > .40$) and Behavioral Reaction ($\Delta R^2 = .03$, $p = .92$).

Evaluation of the videos

An ANOVA was conducted on participants' scores of Overall Video Evaluation with Gender (male, female) and Condition (Narrative Voice, No-narrative Voice, Control) as the between-participants variables. Results showed (Table 3) a significant effect of Condition, $F(2,153) = 6.61$, $p = .002$, $\eta^2_p = .08$: Participants liked the Control more than the No-narrative Voice clip ($p = .001$), whereas no difference emerged between the Control and the Narrative Voice ($p > .50$), or between the Narrative Voice and the No-narrative Voice videos ($p = .08$). A Gender X Condition interaction also emerged, $F(2,153) = 7.00$, $p = .001$, $\eta^2_p = .08$. To better understand this result, the effect of Condition was then tested separately for male and female participants. Results revealed a significant effect of Condition for women, $F(2,78) = 14.42$, $p < .001$, $\eta^2_p = .27$, but not for men ($p = .80$): Women liked the Narrative Voice more than the No-narrative Voice ($p = .001$) and the Control clips ($p < .001$), whereas no difference emerged between the Narrative Voice and the Control videos ($p > .50$). Moreover, simple effect analyses on the effect of gender within Condition revealed that women liked the Control video more than men, $F(1,51) = 4.36$, $p = .04$, whereas men enjoyed the No-narrative Voice video more than women, $F(1,51) = 8.23$, $p = .006$. No gender difference emerged in the Narrative Voice condition ($p > .20$).

Mood

As shown in Table 1, men reported higher levels of positive mood ($M = 5.64$) as compared to women ($M = 8.00$), $F(1,133) = 17.291$, $p = .001$, $\eta^2_p = .12$. Moreover, compared to the other videos, participants felt better after exposure to the Control clip (Table 3), $F(2,133) = 12.31$, $p = .001$, $\eta^2_p = .16$. Importantly, no interaction effect was found between gender and condition, thus indicating that the reported results were not affected by participants' mood as a function of experimental condition.

Table 3.

Study 4. Collective Action, Behavioral Reaction, Overall Video Evaluation and Mood as a Function of Condition (Narrative Voice, No-narrative Voice, Control) and Gender.

	Narrative Voice		*No-narrative Voice*		*Control*	
	M	*SD*	*M*	*SD*	*M*	*SD*
Women (*n* = 81)						
Collective Action	5.18_{c}	1.34	4.21_{b}	1.09	3.36_{a}	1.42
Behavioral Reaction	1.73_{b}	1.34	1.37_{ab}	1.31	0.75_{a}	1.01
Overall Video Evaluation	3.95_{a}	1.14	2.63_{b}	1.33	4.39_{a}	1.30
Mood	9.74_{a}	3.01	8.35_{a}	4.35	5.98_{a}	4.04
Men (*n* = 78)						
Collective Action	3.49_{a}	1.33	3.11_{a}	0.98	3.79_{a}	1.44
Behavioral Reaction	1.26_{a}	1.09	$.62_{a}$	0.98	1.12_{a}	1.09
Overall Video Evaluation	3.48_{a}	1.53	3.67_{a}	1.30	3.71_{a}	1.07
Mood	7.12_{a}	2.89	5.79_{a}	3.48	3.71_{a}	2.82
Overall sample (*n* = 159)						
Collective Action	4.32_{a}	1.57	3.67_{bc}	1.17	3.57_{c}	1.43
Behavioral Reaction	1.49_{b}	1.31	1.00_{ab}	1,21	$.93_{a}$	1.05
Overall Video Evaluation	3.71_{ab}	1.36	3.14_{a}	1.40	4.07_{b}	1.23
Mood	8.38_{a}	3.20	7.18_{a}	4.14	4.92_{b}	3.65

Note. Means within rows that do not share the same subscript are significantly different at $p < .05$ level (Bonferroni-adjusted).

Collective Action

A two-way ANOVA was conducted on participants' scores of Collective Action using Gender and Condition as the between-participants variables. A main effect of Gender was found, $F(1,153) = 14.90$, $p = .001$,$\eta^2_p = .09$. As shown in Table 1, female participants reported higher proclivity to engage in collective action ($M = 4.23$) than males ($M = 3.46$). A main effect of Condition also emerged, $F(2,153) = 5.54$, $p = .005$, $\eta^2_p = .07$. Post-hoc tests with a Bonferroni correction showed (Table 3) that participants expressed more willingness to engage in collective

action after exposure to the Narrative Voice than after watching the No-Narrative Voice (p = .02) or the Control (p = .009) video clips. No difference was found between the No-Narrative Voice and the Control conditions (p = .10). Most importantly, results showed a significant Condition X Gender interaction, $F(2,153) = 9.77$, p = .001, η^2_p = .11. Thus, to investigate the effect of Condition within Gender, simple effect analyses were conducted separately for male and female participants.

A significant effect of Condition was found for women, $F(2,78) = 13.35$, $p < .001$, η^2_p = .26, but not for men ($p > .15$). As shown in Table 3, women reported more willingness to participate in Collective Action after watching the Narrative Voice compared to the No-narrative Voice (p = .02) or the Control video ($p < .001$). Importantly, a difference emerged also between the No-Narrative Voice and the Control conditions (p = .04). Finally, simple effect analyses on the main effect of gender within Condition revealed that men's scores were significantly lower than women's scores of collective action in the Narrative condition, $F(1,51) = 21.23$, $p < .001$, and in the No Narrative condition, $F(1,51) = 14.89$, $p < .001$, but not in the Control condition ($p > .20$). Therefore, female participants were more collective action oriented than male both in the Narrative Voice and in the No-narrative Voice conditions, although baseline levels (Control condition) of collective action were the same.

Very similar pattern of results emerged using each subscales of the Collective Action questionnaire as a separate DV. The only exceptions were the Action Support subscale for which neither main effects nor interactions emerged ($p > .17$) and the Group Efficacy subscale for which only a main effect of condition emerged (p = .001).

Behavioral Reaction

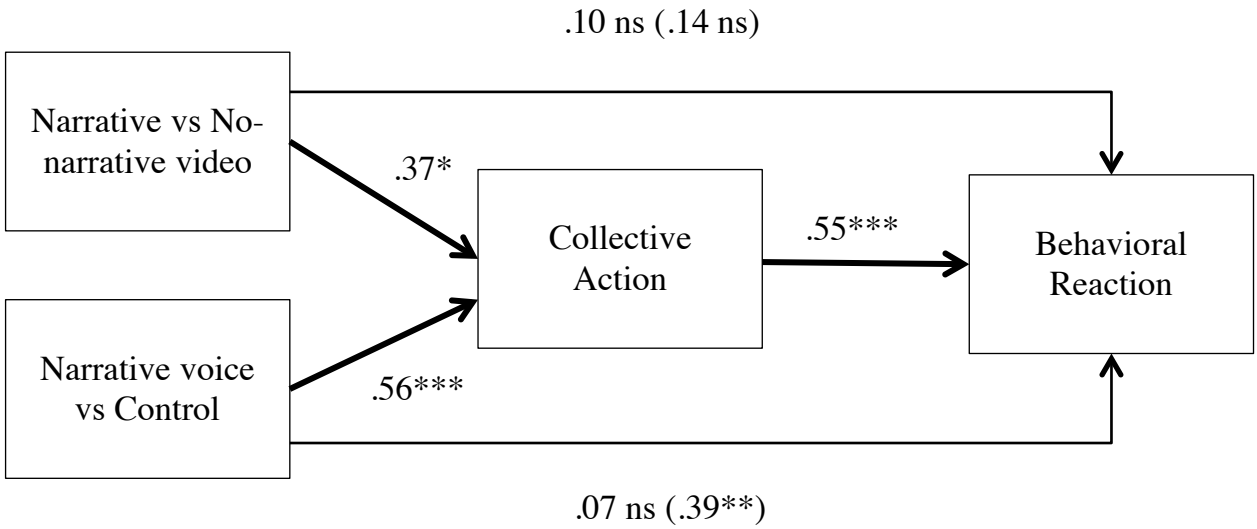
An ANOVA was conducted on participants' scores of Behavioral Reaction with Gender and Condition as the between-participants variables. A main effect of Condition was found, $F(2,153) = 3.65$, p = .03, η^2_p = .05: Participants supported the cause promoted by the association

more after watching the Narrative Voice than the Control clip (p = .05). No difference was found either between the Narrative Voice and the No-narrative Voice (p = .09) or between the No-narrative Voice and the Control conditions (p = 1.0). Importantly, a significant interaction between Condition and Gender also emerged, $F(2,153) = 3.29$, p = .04, η^2_p = .04. Simple effect analysis on Behavioral Reaction revealed a significant effect of Condition for women, $F(2,78) = 4.47$, p = .01, η^2_p = .10, but not for men ($p > .10$). Specifically, as it can been seen in Table 3, women exposed to the Narrative Voice video were more willing to support the petition than women exposed to the Control video (p = .008), whereas no difference emerged between the Narrative Voice and the No-narrative Voice (p = .80) or the No-narrative Voice and the Control (p = .16) video clips. Interestingly, the three video clips had no effects on male participants' willingness to support the petition ($p > .10$). Finally, a difference between men and women emerged only in the No Narrative condition (p = .02).

Mediation analysis

Because of the null findings for men on both collective action and behavioral reaction, a mediation analysis was conducted to test specifically whether women's willingness to engage in Collective Action mediated the relation between Condition and Behavioral Reaction. Given that our predictor (video condition) was a categorical variable with three levels, for the multiple regressions we created two dummy coded variables, with the Narrative Voice video as the reference group (Hayes & Preacher, 2014). Specifically, Contrast 1 tested the effect of the Narrative Voice (coded 1) versus No-narrative Voice condition (coded 0), with the Control condition also coded 1. Contrast 2 tested for the residual difference between the Narrative Voice (coded 1) and the Control condition (coded 0), with the No-narrative Voice condition also coded 1. Consistent with the univariate analyses reported above, the effect of Contrast 1 (Narrative Voice vs. No-narrative Voice condition) on Behavioral Reaction fell short of significance, β = .14, $t(78) = .99$, $p > .30$, whereas the effect of Contrast 2 (Narrative Voice vs. Control condition)

was significant, β = .39, $t(78) = 3.05$, $p = .004$. Moreover, as shown in Figure 1, the effects of both Contrast 1 and Contrast 2 on Collective Action were significant (Contrast 1: β = .37, $t(78) = 2.88$, $p = .006$; Contrast 2: β = .56, $t(78) = 4.83$, $p < .001$). When Collective Action and the two Contrasts were entered simultaneously in the model predicting participants' Behavioral Reaction, the effect of Collective Action was significant, β = .55, $t(78) = 5.06$, $p < .001$, indicating that participants' willingness to engage in Collective Action positively affect participants' Behavioral Reaction. Importantly, neither the effect of Contrast 1 (Narrative Voice vs. No-narrative Voice condition), nor the effect of Contrast 2 (Narrative Voice vs. Control condition) was significant in this last model (*p*s > .50). Figure 1 summarizes the results of Contrast 1 and Contrast 2.



Note: $p < .05$* $p < .01$, ** $p < .001$***

Figure 1. *Study 4 Mediation Analysis Testing the Indirect Effects of Video Condition (Contrast 1: Narrative Voice = 1, No-narrative Voice = 0, Control = 1; Contrast 2: Narrative Voice = 1, Control = 0, No-narrative Voice = 1) on Female Participants' Behavioral Reaction via Collective Action*.

To test for significance of the indirect effects of Contrast 1 and Contrast 2 on Behavioral Reaction through Collective Action, we calculated bias-corrected 95% confidence intervals (CI) using a bootstrapping technique (Preacher & Hayes, 2008). Because the null hypothesis of no mediation states that the indirect effect is zero, the null hypothesis is rejected when the CI does not include zero. Both for Contrast 1 and Contrast 2, the CIs (with 5000 resamples) for the estimate of the indirect effect on participants' Behavioral Reaction through Collective Action did not include zero (Contrast 1: 95% CI: LL = -1.43; UL = -.46; Contrast 2: 95% CI: LL = -.88; UL = -.15), thus supporting our hypothesis that participants' willingness to engage in Collective Action mediated the relation between Narrative Voice versus No-narrative Voice, as well as Narrative Voice versus Control condition, and participants' Behavioral Reaction.

The same pattern of results emerged also entering each subscale of the collective action questionnaire as a mediator, with the exception of Action Support, which did not support the mediation model (Contrast 1: 95% CI: LL = -.29; UL = .03; Contrast 2: 95% CI: LL = -.39; UL =.07).

Discussion

In the present study we explored for the first time the effect of sexually objectifying TV, as well as of a critique of such TV portrayals, on individuals' willingness to engage in collective action and their behavioral intention to take action against such degrading depiction of women in the media. Several important results emerged. First, in line with our predictions, women exposed to the narrative voice video condition, that included a reasoned critique of sexually objectifying TV, were more willing to engage in collective action, as compared to women exposed to either a sexually objectifying TV (no-narrative voice condition) or a control video. On the contrary, men were not affected by type of video condition, and they showed lower collective action inclination compared to women when exposed to either the no-narrative or the narrative voice video.

Moreover, the same pattern of results emerged as regards the Behavioral Reaction. In fact, women were more likely to support the cause against the widespread of female sexual objectification in the media (e.g. to sign a petition and to participate in a rally) after exposure to the narrative voice video, as compared to the control video, whereas experimental condition again did not influence men. Another important result was that women's collective action proclivity mediated the relation between video condition and their behavioral intention to fight against the objectification of women. In other words, exposure to a commentary about women's sexual objectification and exploitation in the Italian TV (narrative voice video) led women to increase their collective action proclivity, which, in turn, enhanced their actual behavioral reaction. In addition, in contrast with women, not only men were unaffected by exposure to the narrative voice clip but also, as compared to women, they showed substantially lower actual behavioral reaction after simply being exposed to sexually objectifying TV images (No-narrative video). Furthermore, in the present study we investigated the role of SDO (i.e. Social Dominance Orientation) in influencing participants' collective action proclivity. In line with previous findings, our results showed that SDO was negatively correlated with both men's and women's level of collective action proclivity and behavioral intention to support the cause against women's sexual objectification. In other words, the more participants supported the inequality among groups, the less they were willing to engage in collective action and to take action. Similarly, the more participants were exposed to sexist television in their daily lives, the less they were willing to engage in collective action and, for women only, to support the cause.

According to Objectification Theory (Fredrickson & Roberts, 1997), the milieu of exposure to sexualized images by media and objectifying gaze in everyday life may have important negative repercussions on women's psychological and cognitive well-being (see Moradi & Huang, 2008, for a review). However, although it has been recently highlighted how the promotion of a critical view of mass media might help to resist to the negative consequences

of sexual objectification (e.g. Tylka & Augustus-Horvath, 2011) to date very little is known about the potential efficacy of anti-sexual objectification campaigns on people's willingness to take action. The positive effects of the narrative voice video emerged in the present study are, therefore, important. Indeed, they respond to the recent APA task force flag pointing to the exponential increase of sexualized images proposed by media (APA task force, 2007). Moreover, they have crucial implications even for intervention programs, as they demonstrate for the first time that anti-sexual objectification campaigns could (at least for women) represent a powerful tool for raising women's awareness on the problem of sexual objectification and for motivating them to engage in collective action to improve media portrayals of women.

The reaction of men in the present study is complex and deserves a closer analysis. First, when men were simply exposed to sexually objectifying TV without any reasoned critique (No narrative voice condition) they expressed less support for women's cause compared to the female sample. This result is in line with previous research showing that, for example, watching sexually objectifying media content may increase men's proclivity to sexual harassment by increasing their endorsement of masculine gender role norms (Galdi et al., 2014). The present results are also in line with findings by Vaes, Paladino and Puvia (2011), who showed that men tend to dehumanize sexually objectified women when they are sexually attracted by them. Therefore, taken all together, it is not surprising that, when exposed to sexually objectifying media content, men showed less intention to take part in collective action that fights for gender equality, as emerged in the present study. However, surprisingly, men manifested low willingness to participate in collective action even after exposure to sexually objectifying TV images with a reasoned critique (narrative voice condition). The present results, thus, indicate that exposure to comments against the degrading portrayal of women on TV may be effective to motivate women, but not men, to take action. Further research is then needed to investigate potential factors that may increase men's engagement in social activism to improve women's

condition. As a case in point, in the present study the background voice of the narrative voice video clip was female. This feature could have suggested male participants that sexist and objectifying media are mostly a female problem and men cannot do much to improve the situation. Therefore, future studies could test whether a male narrative voice would enhance men's involvement in the issue of gender equality by making it an across-gender cause. Also addressing men explicitly, as Emma Watson has done in her famous UN speech in September 2014 as part of the *HeForShe* campaign, may be an alternative strategy to raise men's awareness and willingness to take action. Portraying men as part of the solution, rather than the problem, may provide a promising approach.

The present results demonstrated that the more women showed collective action proclivity, conceiving themselves *together* with other women, the more they intended to concretely act to stop the widespread use of sexual objectification in television. These findings also suggest novel avenues to further understand the mechanisms leading to collective action. For example, previous research has shown that women's gender identification may be an important factor involved in the willingness to engage in collective action (e.g., van Zomeren, Spears & Leach, 2008). Therefore, it would be interesting for future research to explore the role of women's identification with the sexually objectified targets portrayed in the media in the fight against female sexual objectification in television.

This study also showed connections with other areas of research, such as self-objectification. For example, Calogero (2013) demonstrated that when women were exposed to a sexually objectifying situation their social activism was disrupted because they became more willing to support the status quo (i.e. endorsement of gender system justification; Calogero, 2013). In the present study, habitual exposure to sexually objectifying TV was generally associated with lower levels of collective action, thus suggesting a passive reaction to such media content. However, because the narrative voice video clip elicited a significant reaction, it

would be interesting to explore whether such sensitization campaigns may lead women to engage in activism because it motivates them to challenge the gender system justification.

A potential limitation of the present study could be its external validity: the main findings of the study are based on a 3-minutes video, which is an artificial concentration of real Italian TV programs. However because Italian TV proposes highly sexist and objectifying scenarios very frequently, these results are likely to be an underestimation of daily exposure of Italians to such degrading TV. As the case in point, it remains to be seen whether these findings would be replicated in other Western and non-Western countries.

In conclusion, the present study provides novel evidence that exposure to sexually objectifying media and anti-sexual objectification campaigns may increase women's proneness to take action and participate in collective action against such objectifying and degrading portrayals. It is hoped that these findings stimulate further scientific endeavors to test the efficacy of similar campaigns as well as interventions to promote a critical approach toward the media, such as the Zanardo's project "A new look at the media", aimed at training adolescents and educators to approach the media with a critical eye (Zanardo, 2011).

Chapter 4 – General Discussion

Review of the findings in the light of the objectification theoretical framework

As described at the end of Chapter 1, the first aim of the present thesis was to further increase our knowledge on the effects of sexual objectification on women's psychological outcomes. Specifically we aimed to extend the objectification theoretical framework by testing the causal links between sexually objectifying gaze and self-objectification (manifested as body-surveillance) and body dissatisfaction, which had never been tested experimentally before. Both Studies 1 and 3 supported the notion that the mere interaction with a man (vs. a woman) increases women's state self-objectification. Extending previous findings by Calogero (2004), who found that the mere anticipation of an interaction with a man increased women's appearance anxiety and body shame, our findings (Study 1) suggest that in actual interaction encounters, men lead women to self-objectify more than women do, supporting the notion that the male gaze is more threatening for women's self-perception regardless of whether the focus of attention is towards the body. At the same time, our findings (Study 3) also suggest that in actual interpersonal encounters even female objectifying gazes can affect women's self-perception by increasing self-objectification. Therefore, altogether our results contribute significantly to the objectification literature by demonstrating for the first time the hypothesized causal link between exposure to sexually objectifying gaze and increased self-objectification.

In addition, the findings of Study 3 show that the internalization of the sociocultural standards of beauty also plays an important moderating role on the effect of the sexually objectifying gaze on body dissatisfaction. Specifically, these results suggest that the sociocultural standards promoting an unrealistic beauty model of women affect women's body dissatisfaction, and they do so regardless of their individual level of internalization of such beauty standards.

Indeed it was found (Study 3) that women who do not to compare themselves chronically to such standards are paradoxically those who are more affected by the situational experience of receiving a female objectifying gaze, whereas women who have interiorized such norms very strongly demonstrate to have a chronically higher body dissatisfaction, albeit not depending on the experimental condition. This result is consistent with previous objectification research showing that the internalization of cultural beauty standards mediates the relation between habitual exposure to objectifying experience and trait self-objectification (e.g. Moradi et al., 2005). Moreover, the present findings complement this previous research they demonstrates for the first time that the level of internalization of such standards, presumably related to previous media exposure, also modulate future situational responses triggered by sexually objectifying encounters.

Finally, Study 3 also corroborates previous findings showing that exposure to sexually objectified media images promoting the beauty ideal increases women's self-objectification (e.g. Harper & Tiggemann, 2008; Grabe at al., 2008 for a review). Therefore, taken together, the findings described in Chapter 2 (Study 1 & 3) replicate and further extend the objectification literature by providing support for the causal link between sexually objectifying experiences (i.e. exposure to sexually objectifying gaze and sexually objectifying media) and both self-objectification and body dissatisfaction.

In Chapter 2 (Studies 1, 2 & 3) we also reported research on the causal link between sexually objectifying experiences and cognitive performance. In line with the second aim of the present work, we extended previous research by repeatedly demonstrating that both women's attention resources and working memory capacity are disrupted when sexual objectification occurs through the sexually objectifying male gaze in a real interaction settings or through the exposure to sexually objectifying images of women on television. Importantly, the use of a

gender neutral task allowed us to clearly support the Objectification theoretical explanation un-confounded by the possible activation of specific gender stereotypes, which had made previous findings vulnerable to the alternative explanation of Stereotype Threat as opposed to Objectification (e.g. Fredrickson et al., 1998; Gervais, 2011).

In addition, the present findings demonstrate that the level of perceived attractiveness of the interaction partner and the level of chronic appearance anxiety of the participant modulate the response to the situational sexually objectifying experience. Indeed Study 2, extending Study 1's results, showed that, the more the male interaction partner was found attractive by women, the more their attention resources were disrupted. This novel finding suggests that the perceived level of attractiveness of a male interaction partner might therefore increase the detrimental cognitive responses triggered by the sexually objectifying gaze experienced by women even in everyday interaction encounters.

However, the reasons for such adverse effects of men's level of attractiveness are unclear. Given the novelty of this finding we can only advance some speculative possibilities. One hypothesis is that interacting with an attractive man would further increase women's appearance worries, thus diverting their attention because they might feel more pressured to be attractive as well. In line with this reasoning, it was also found that, the more women were attracted to whom was sexually objectifying them, the more they perceived themselves as warm (e.g. Likeable, Friendly, Kind). This finding suggests that receiving an objectifying gaze by a highly attractive man might lead women to conform more to the stereotype that depicts women as warm (Dikemann & Goodfriend, 2006), possibly in order to be viewed as more attractive by the man. These suggestions are also in line with Objectification Theory, which posits that Western cultures pressure women to interiorize especially the male gaze, and therefore to fit the beauty standards culturally shaped to attract men. However, it is important to note that the level of body surveillance did not mediate these results, thus leaving a second possibility that the sexually

objectifying gaze by an attractive man disrupts women's attention resources directly, leading them to underperform in difficult tasks. Clearly, understanding the role of male perceived attractiveness in cognitive performance requires further research.

At the same time, in Study 2, it was found that the higher the level of perceived attractiveness of the female experimenter, the stronger the tendency to perform better among women. Differently for the hypotheses regarding the attractive male gaze, we reasoned that women receiving a female gaze would be not negatively affected by the female gaze, but, due to a halo effects ("beautiful people are good people"; Dion et al., 1972; Jackson, Hunter, & Hodge 1995 for a review), they would perform better when interacting with an attractive woman because they would perceive her as more welcoming and nice, therefore inducing a positive experience and good performance. However, since the attractiveness findings are entirely novel, our speculations must be taken with caution.

In addition, the results of Study 3 extend our knowledge on the effects of sexually objectifying media by showing that working memory capacity was disrupted when women, especially those with lower appearance chronic anxiety, were exposed to sexually objectifying images from television. This unexpected result might seem counterintuitive. We actually had expected that chronically high appearance anxious women would have been more strongly affected by the sexually objectifying clip. However, given the novelty of these findings, we could only advance some speculations. The first possibility is that, in line with the Attentional Control Theory literature (see Eysenk et al., 2007 for a review), high appearance anxious women, due to their very proclivity, might have developed greater compensatory strategies (e.g. greater effort) to cope with stressful situations (e.g. being exposed to sexually objectifying media), whereas low appearance anxious women might be less prepared to such exposure and therefore be more affected by the sexually objectifying situation. To support this reasoning it was also found that women exposed to such sexually objectifying television showed a higher level of

concentration (as measured by the flow's concentration subscale) during the working memory test, thus demonstrating somehow to put greater effort during the cognitive performance compared to women exposed to non-objectifying material. The second possibility hereby suggested is that the results might reflect sexually objectifying media's consumption. Indeed, appearance anxiety level has been shown by previous research to be predicted by the amount of exposure to sexually objectifying media (see Grabe, Ward, & Hyde 2008 for a review). Therefore, it is possible that lower appearance anxious women are habitually less exposed to sexually objectifying television and therefore their cognitive resources are more affected by the objectifying images, compared to high appearance anxious women, who probably consume more sexually objectifying media and are therefore more used to objectifying images. However, these speculations could not been tested in the present study and go beyond the scope of the present work. However, future studies should test the hypotheses tentatively advanced above to interpret the present work. To summarize, responding to our second aim, findings from the three studies presented in Chapter 2 support a direct causal link between sexually objectifying experiences and women's impairment of cognitive resources above and beyond the activation of specific negative gender stereotypes. These results also demonstrate the significant moderating roles of important individual differences, such as women's perception of attractiveness of the interaction partner and their chronic appearance anxiety.

Furthermore, results reported in Chapter 2 (Studies 1, 2, 3) extend the objectification literature by analyzing possible mechanisms that might underlie the detrimental effects of sexually objectifying experiences on women's cognitive performance. Even though the hypothesized mediating models were not supported, results from the three studies contribute to the field by showing that sexually objectifying experiences directly affect both the amount of task intrusive thoughts and the achievement of peak motivational states (i.e. flow experience) during performance. More specifically, the findings of Study 1 showed that women interacting

with a male gaze, parallel to the decrement in their attention resources, also reported an increased amount of thoughts and worries about the performance during the attention test itself, as compared to women receiving a female gaze. Importantly, Study 2 extended the findings of Study 1 by showing that women's flow experience specifically regarding the perception of being capable of achieving good results on the sustained attention test (Flow_Balance Skill subscale) were disrupted when receiving a male gaze, especially for those women who have interiorized to a greater extent the sociocultural standards of beauty promoted by mass media. Finally, as proposed above, Study 3 also showed that, possibly in order to cope with the stress of being exposed to sexually objectifying images from television, women reported more concentration (Flow_concentration subscale) during the working memory test even though, especially for low appearance anxious women, their performance was disrupted.

Altogether the findings of Chapter 2 further extend the theoretical objectification framework by providing novel evidence to support the direct causal chains among experiences of sexual objectification (i.e. receiving a sexually objectifying gaze or watching sexually objectifying visual media), self-objectification and body dissatisfaction, disrupted cognitive resources, task-related interference and flow experience. Figure 1 shows a summary of our principal findings in light of the objectification theoretical framework.

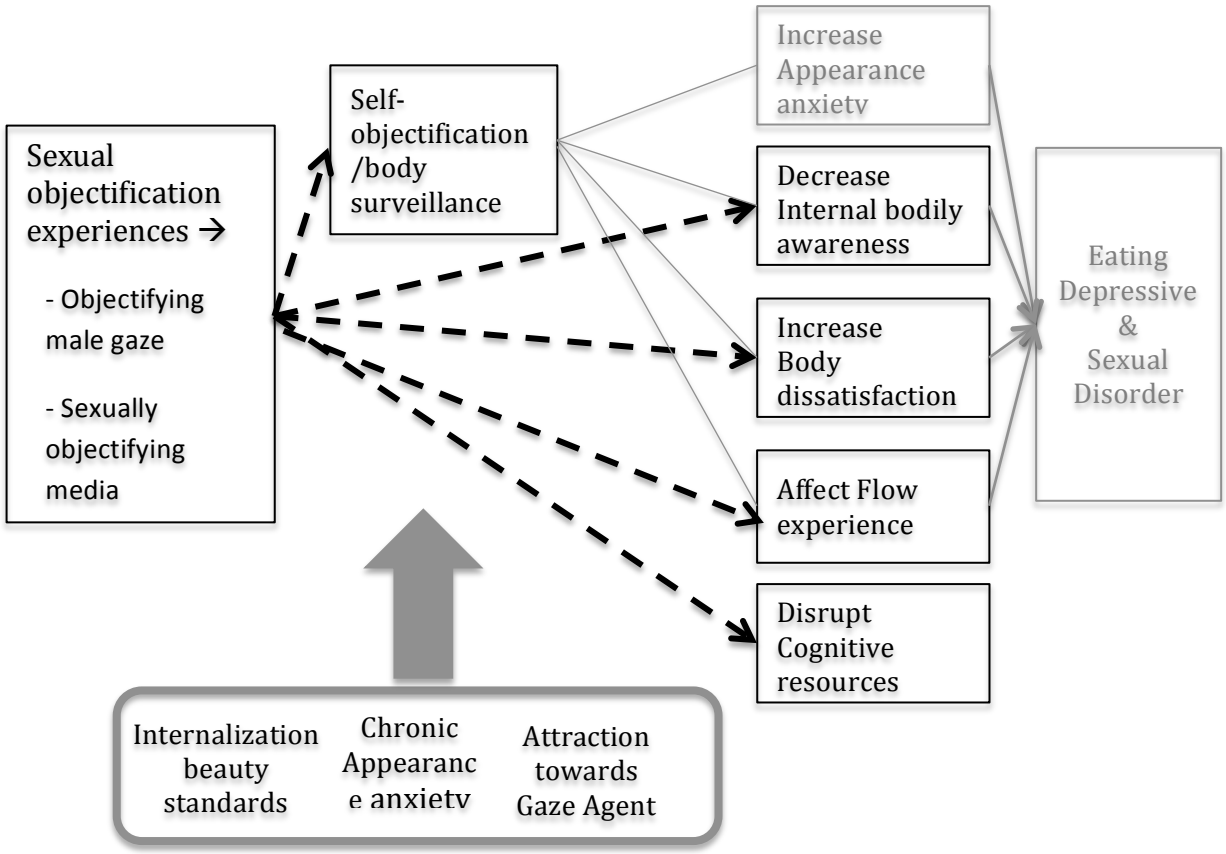


Figure 1. *Objectification framework in light of present findings. Dashed lines represent the links that have been tested in the present work. The moderators are presented in the lower left box.*

Finally, after exploring the causal links between sexually objectifying experiences and adverse psychological and cognitive outcomes, the third aim of the present work was to move forward and investigate possible interventions that might help break the vicious cycle of sexual objectification. In Chapter 3, starting from the assumption that most research on sexually objectifying media has investigated its repercussions on women's body concerns and mental health outcomes (for a review Grabe et al., 2008), we noticed that, surprisingly, no research has investigated the effects of sexually objectifying media on people's willingness to react against such portrayals. Importantly, even if the promotion of a critical view of sexually objectifying mass media is identified as an important intervention strategy proposed to help women resist sexual objectification (e.g. Tylka & Augustus-Horvath, 2011) and even if the amount of pro-

gender equality campaigns are growing (e.g. *HeForShe* UN Campaign), no research has actually investigated whether the promotion of such critical views might increase people's willingness to actively react and protest against these sexually objectifying images of women in the media. Therefore in Chapter 3 we tested the effects of the exposure to sexually objectifying TV portrayals of women as well as a reasoned critique of such degrading depictions on both women's and men's willingness to participate in collective action. The findings provided novel evidence that the exposure to a critical commentary that raises awareness on the widespread of women's sexual objectification on TV does increase women's, but not men's, proneness to participate in collective action as well as to behaviorally react and participate to public protests against such objectifying and degrading portrayals of women. These findings are important because they suggest that anti-sexual objectifying campaigns might be powerful tools that work to raise the awareness on the problem by motivating women to take action rather than being passive bystanders of the widespread of sexual objectification. Therefore, our findings support the notion that the promotion of a critical point of view through anti-sexual objectification campaigns might, indeed, represent a good intervention strategy to break the vicious cycle of sexual objectification and its widespread on the visual media. However, the positive effects were found only for women, whereas men were not affected by the critical commentary, thus suggesting further avenues for future studies, which will be discussed in the next session.

Future Directions

As already highlighted above, the current findings provide novel evidence for the objectification theoretical framework and represent indeed an interesting advance in the literature. However, they also raised novel hypotheses, which, to also overcome some of their limitations, suggest a number of future research directions.

The results regarding the moderating effects of individual differences such as

internalization of the societal beauty standards, social appearance anxiety and attraction towards the agent of sexual objectification are indeed very interesting, and they also advance our knowledge on the effects of sexual objectification on both women's psychological and cognitive outcomes. Along the way several explanations for the sometimes-unexpected findings were advanced, but not all of them could be tested. Therefore, we think that future studies should take into account such individual differences and test the hypotheses we have proposed in order to disambiguate their role and strengthen the present findings.

Moreover, it is important to notice that our sample was pretty homogeneous, consisting of mostly heterosexual young women. Therefore future research would advance our knowledge by assessing whether the consequences of the sexually objectifying gaze further depends on one's sexual orientation. Indeed, previous findings have shown that sexually objectifying experiences might affect homosexuals in a different way compared to heterosexual women (e.g. Kozee & Tylka, 2006; Engeln-Maddox, Miller, & Doyle, 2011), thus suggesting that sexually objectifying male gaze might be not as problematic as it is for heterosexual women. As also highlighted by Gervais and colleagues (2011), future studies might also extend the results in a sample of heterosexual and homosexual men in a cross-gender gaze design, as the experience of the male objectifying gaze might affect men differently on the basis of their sexual orientation. For example, the male gaze might be perceived as a threat to masculinity by heterosexual men whom in turn might react to restore their manhood even in physical aggressive ways (e.g. Vandello, Bosson, Cohen, Burnaford, & Weaver, 2008; Bosson, Vandello, Burnaford, Weaver, & Wasti, 2009). In the same vein, future research might also investigate the effects of objectifying gazes in the context of romantic relationships. Indeed, in her conceptualization of objectification, Nussbaum (1995, 1999) has highlighted how objectification is not a negative phenomenon tout court. She, in fact, posited that in some contexts it might be part of an enjoyable experience (e.g. in the context of romantic relationships). In this respect, research has found mixed results, with

partner objectification linked to lower level of relationship satisfaction (Zurbriggen, Ramsy, & Jaworski, 2011), but increased satisfaction if women perceive that they are also valued for their nonphysical qualities and not only for their physical aspect (Meltzer & McNulty, 2014). Therefore, future studies should also take into account the type of relationships involved and test how they can temper or intensify the effects of sexually objectifying experiences.

Finally, we contend that one of the most interesting findings of the present thesis, which might have important implications for the implementation of preventing strategies, regards the positive effects of a reasoned critique of sexualizing media that has been shown to raise women's willingness to react and actively to participate in collective action that aims at improving the social representation of their gender group on media. In line with other recent research (Calogero, 2013), we propose that such findings might also be explained in the light of gender system justification framework, which conceptualizes sexual objectification as a system that structures our society and prescribes specific roles to men and women in order to reinforce the gender status quo. However, given the present findings future studies should investigate whether sensitizing campaigns might, not only increase women's awareness and active participation, but also at the same time motivate them to challenge the gender status quo. Moreover, given men's null findings, we advance the hypothesis that the specific type of commentary (e.g. female narrative voice, women as the only target) might have promoted the idea that sexual objectification is entirely a female issue, thus actually sustaining the system justification even further. Under this light, it would not be unexpected that men do not show any support for collective action that aims to stop women's sexual objectification. Future studies should therefore further explore how to enhance men's involvement in such gender issue and encourage them to break the sexual objectification system. We propose that addressing them directly (e.g. male narrative voice), for example, and enhancing the knowledge that sexually objectifying portrayals have negative repercussion for the entire society, including men, might indeed be a

good strategy to increase men's willingness to support action aimed at breaking the system of sexual objectification in the media. Portraying men as part of the solution, rather than the problem, may provide a promising approach.

Finally, we think that another important avenue for future studies should be to test if sensitization media campaigns that aim at promoting a critical view on sexually objectifying media might also work as a buffer on women's psychological consequences of sexually objectifying media (e.g. self-objectification, body concerns, mental health repercussion). In particular, two hypotheses might be formulated. On the one hand, anti-sexual objectification campaigns might indeed enhance women's proclivity to social activism, but at the same time women might be still suffer the psychological consequences of sexual objectification. On the other hand, such agentic points of view might actually temper the adverse effects of sexual objectification on women's psychological well being. Given the novelty of these lines of research, we hope that the present findings will stimulate further endeavors to test the efficacy of similar interventions.

Social and Clinical Implications

According to research, women across all ages report sexually objectifying experiences almost on an every day basis (e.g. Swim et al., 2001; Kozee et al., 2007). Therefore we argue that our findings (although presenting small effect sizes) are particularly worrisome if we think that they are the product of a small manipulation, which might actually represent a gross underestimation of the daily exposure to sexually objectifying encounters and media by most women. Therefore, our results suggest several important implications that will be discussed below.

First, in line with the objectification framework (1997), the present results suggest that daily objectifying encounters might repeatedly induce women to take an external point of view

on themselves, thus leading to a vicious continuous cycle of self-objectification. Second, the present results also suggest that women's cognitive resources and peak motivational states might be often disrupted during daily life, therefore hindering the possibility of achieving rewarding and pleasurable experiences.

Third, these results also highlight that the promotion of mostly unrealistic sociocultural standards of beauty by media might affect all women independently of their level of internalization of such standards, thus suggesting that no one is protected from the negative effects of sexually objectifying mass media.

Recently researchers have proposed different strategies that might help to break the self-objectification spiral (e.g. techniques to enhance embodiment and empowerment; Tylka & Augustus-Horvath, 2011). It is hopeful that future endeavors will be directed to actually test such prevention and intervention strategies both at the individual and social level. As a case in point, our findings regarding the positive effect of the sensitizing campaign are encouraging and suggest that such interventions might help promote proactive behavior at a social level. We therefore encourage future endeavors to further test its possible beneficial effects at the societal but also at the individual level, helping break the vicious cycle of self-objectification.

Conclusions

In conclusion, the present studies clearly extend our knowledge on the many consequences of sexually objectifying experiences such as to finally provide novel support to the objectification theoretical framework. The present work highlights one more time how sexual objectification is indeed, a complex phenomena, which not only changes the perception and moral treatment of women, but also directly affects their psychological and cognitive well-being. It also sheds light on possible mass media intervention that might be effective to decrease passive attitudes towards sexually objectifying media and to promote proactive behavior aimed at improving women images. Indeed, further work is needed to increase our knowledge on the

effectiveness of this and other interventions to prevent sexual objectification both at the individual and at the societal level. These future findings, together with the empirical results already at hand, might be the milestones to the promotion of a lasting social change.

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Appendix

Body Consciousness Scale (McHinley & Hyde, 1996)

- SURVEILLANCE SUBSCALE (Adopted in Studies 1, 2 & 3)

Trait English Version

Please rate how much do you agree with the following sentences 1 (*strongly disagree*) to 7 (*strongly agree*)

- I rarely think about how I look *
- I think it is more important that my clothes are comfortable than wether they look good on me*
- I think more about how my body feels than how my body looks*
- I rarely compare how look with how other people look*
- During the day, I think about how I look many times.
- I am often worry about whether the clothes I am wearing make me look good
- I rarely worry about how I look to other people*
- I am more concerned with what my body can do than how it looks. *

State Italian Adaptation:

1. In questo momento, sto pensando a come appare il mio aspetto fisico.
2. In questo momento, penso sia più importante che i miei abiti siano comodi piuttosto che mi facciano apparire bella.
3. In questo momento, sono più focalizzata sulle sensazioni che provengono dal mio corpo piuttosto che su come il mio corpo appare
4. In questo momento, sto pensando a come il mio corpo appare in confronto a quello delle altre persone.
5. In questo momento, non sono preoccupata del modo in cui appare il mio corpo.
6. In questo momento, sono preoccupata che gli abiti che indosso mi facciano apparire bella
7. In questo momento, sono preoccupata che le persone mi possano giudicare per come appaio.
8. In questo momento, sono più interessata alle capacità che ha il mio corpo piuttosto che a come appare.

- BODY SHAME SUBSCALE (Adopted in Study 1)

Trait English Version

- When I can't control my weight, I fell like something must be wrong with me.
- I feel ashamed of myself when I haven't made the effort to look my best.
- I fell like I must be a bad person when I don't look as good as I could

- I would be ashamed for people to know what I really weigh.
- I never worry that something is wrong with me when I am not exercising as much as I should*
- When I'm not exercising enough, I question whether I am a good enough person.
- Even when I can' control my weight, I think I'm an okay person. *
- When I'm not the size I think I should be, I feel ashamed.

State Italian Adaptation:

1. Se non riesco a controllare il mio peso, mi sento come se ci fosse qualcosa di sbagliato in
2. Mi vergogno di me stessa quando non faccio tutto quello che posso per apparire al meglio.
3. Se non appaio bella quanto potrei, mi vergogno.
4. Mi vergogno di far sapere agli altri quanto peso realmente.
5. Se non faccio abbastanza attività fisica, mi vergogno.
6. Se non faccio abbastanza attività fisica, dubito di essere una brava persona.
7. Anche se non riesco a controllare il mio peso, penso di essere una persona a posto.
8. Se non rientro nella taglia che penso dovrei avere, mi vergogno.

Flow Experience State scale (Jackson and Marsh, 1996; adopted in Study 2 & Study 3)

Please answer the following questions in relation to your experience in the event you have just completed. These questions relate to the thoughts and feelings you may have experienced during the task. There are no right or wrong answers. Think about howyou felt during the task and answer the questions using the rating scale below. Circlethe number that best matches your experience from the options to the right of each question.

Sub Scales

-Challenge-skill balance: item (1, 9, 17, 25)

-Action awarness merging: item (2, 10, 18, 26)

-Unambiguous feedback: item (3, 11, 19, 27)

- Concentration on the task at hand: item (4, 12, 20, 28)

- Paradox of control: item (5, 13, 21, 29)

- Loss of self-consciousness: item (6, 14, 22, 30)

- Trasformation of time: item (7, 15, 23, 31)

- autelitic experience: item (8, 16, 24, 32)

English Version

1. I was challenged, but I believed my skills would allow me to meet the challenge.
2. I made the correct movements without thinking about trying to do so.
3. It was really clear to me that I was doing well.
4. My attention was focused entirely on what I was doing.
5. I felt in total control of what I was doing.
6. I was not concerned with what others may have been thinking of me.
7. Time seemed to alter (either slowed down or speeded up).
8. I really enjoyed the experience.
9. My abilities matched the high challenge of the situation.
10. Things just seemed to be happening automatically.
11. I was aware of how well I was performing.
12. It was no effort to keep my mind on what was happening.
13. I felt like I could control what I was doing.
14. I was not worried about my performance during the event.
15. The way time passed seemed to be different from normal.
16. I loved the feeling of that performance and want to capture it again.
17. I felt I was competent enough to meet the high demands of the situation.
18. I performed automatically.
19. I had a good idea while I was performing about how well I was doing.
20. I had total concentration.
21. I had a feeling of total control.
22. I was not concerned with how I was presenting myself.
23. It felt like time stopped while I was performing.
24. The experience left me feeling great.
25. The challenge and my skills were at an equally high level.

26. I did things spontaneously and automatically without having to think.
27. I could tell by the way I was performing how well I was doing.
28. 1 was completely focused on the task at hand.
29. I felt in total control of my body.
30. I was not worried about what others may have
31. been thinking of me.
32. At times, it almost seemed like things were happening in slow motion.
33. I found the experience extremely rewarding.

ITALIAN TRANSLATION:

1. Mi sono sentita sfidata dal compito, ma credevo che le mie abilità mi permettessero di raccogliere la sfida.
2. Ho dato la risposta senza pensare che stessi cercando di farlo.
3. Mi era veramente chiaro che stavo andando bene.
4. La mia attenzione era concentrata interamente su quello che stavo facendo.
5. Mi sentivo in totale controllo di quello che stavo facendo.
6. Non ero preoccupata di quello che gli altri potevano pensare di me.
7. Il tempo sembrava alterato (rallentato o accelerato).
8. Fare il compito mi è veramente piaciuto.
9. Le mie abilità erano all'altezza del compito.
10. Mi sembrava di dare le risposte automaticamente.
11. Ero cosciente di come stavo andando.
12. Non facevo nessuno sforzo a tenere la mia mente concentrata su quello che stavo facendo.
13. Mi sentivo come se avessi potuto controllare quello che stavo facendo.
14. Non ero preoccupata della mia prestazione durante il compito.
15. Il modo in cui il tempo passava mi sembrava diverso dal normale.
16. Mi piaceva la sensazione che provavo durante il compito e vorrei poter provarla di nuovo.
17. Sentivo di essere brava abbastanza da soddisfare le elevate richieste del compito.
18. Ho eseguito il compito automaticamente.
19. Mentre eseguivo il compito, avevo una buona idea di come stavo andando.
20. Avevo una concentrazione totale.
21. Avevo una sensazione di completo controllo.
22. Non ero preoccupata di come apparivo agli altri.
23. Mi è sembrato come se il tempo si fermasse mentre eseguivo il compito.
24. Alla fine dell'esperienza mi sentivo alla grande.
25. La sfida rappresentata dal compito e le mie abilità erano allo stesso alto livello.
26. Ho dato le risposte spontaneamente e automaticamente senza bisogno di pensare.
27. Dal modo in cui davo le risposte capivo come stavo andando.
28. Ero completamente concentrata sul compito.
29. Mi sentivo in completo controllo del mio corpo.
30. Non ero preoccupata di cosa potessero pensare gli altri di me.
31. A volte, mi sembrava quasi che le cose accadessero al rallentatore.
32. Ho trovato l'esperienza estremamente gratificante.

Body Image State Scale (BISS, Cash et al., 2002; adopted in Study 3)

English version

For each of the items below, check the box beside the one statement thatbest describes how you feel RIGHT NOW AT THIS VERY MOMENT. Read the items carefully to be sure the statement you choose accurately and honestly describes how you feel right now.

1. Right now I feel . . .
   □ 1 Extremely dissatisfied with my physical appearance
   □ 2 Mostly dissatisfied with my physical appearance
   □ 3 Moderately dissatisfied with my physical appearance
   □ 4 Slightly dissatisfied with my physical appearance
   □ 5 Neither dissatisfied nor satisfied with my physical appearance
   □ 6 Slightly satisfied with my physical appearance
   □ 7 Moderately satisfied with my physical appearance
   □ 8 Mostly satisfied with my physical appearance
   □ 9 Extremely satisfied with my physical appearance

2. Right now I feel . . .
   □ 1 Extremely satisfied with my body size and shape
   □ 2 Mostly satisfied with my body size and shape
   □ 3 Moderately satisfied with my body size and shape
   □ 4 Slightly satisfied with my body size and shape
   □ 5 Neither dissatisfied nor satisfied with my body size and shape
   □ 6 Slightly dissatisfied with my body size and shape
   □ 7 Moderately dissatisfied with my body size and shape
   □ 8 Mostly dissatisfied with my body size and shape
   □ 9 Extremely dissatisfied with my body size and shape

3 Right now I feel . . .
   □ 1 Extremely satisfied with my weight
   □ 2 Mostly dissatisfied with my weight
   □ 3 Moderately dissatisfied with my weight
   □ 4 Slightly dissatisfied with my weight
   □ 5 Neither dissatisfied nor satisfied with my weight
   □ 6 Slightly satisfied with my weight
   □ 7 Moderately satisfied with my weight
   □ 8 Mostly satisfied with my weight
   □ 9 Extremely satisfied with my weight

4 Right now I feel . . .
   □ 1 Extremely physicaly attractive
   □ 2 Very physicaly attractive
   □ 3 Moderately physicaly attractive
   □ 4 Slightly physicaly attractive
   □ 5 Neither attractive nor unattractive
   □ 6 Slightly physicaly unattractive
   □ 7 Moderately physicaly unattractive
   □ 8 Very physicaly unattractive
   □ 9 Extremely physicaly unattractive

5 Right now I feel . . .

 1 A great deal worse about my looks than I usualy feel
 2 Much worse about my looks than I usualy feel
 3 Somewhat worse about my looks than I usualy feel
 4 Just slightly worse about my looks than I usualy feel
 5 About the same about my looks as usual
 6 Just slightly better about my looks than I usualy feel
 7 Somewhat better about my looks than I usualy feel
 8 Much better about my looks than I usualy feel
 9 A great deal better about my looks than I usualy feel

6 Right now I feel that I look . . .
 1 A great deal better than the average person looks
 2 Much better than the average person looks
 3 Somewhat better than the average person looks
 4 Just slightly better than the average person looks
 5 About the same as the average person looks
 6 Just slightly worse than the average person looks
 7 Somewhat worse than the average person looks
 8 Much worse than the average person looks
 9 A great deal worse than the average person looks

Italian Version

Per favore, per ogni item segna con una crocetta la frase che meglio descrive come ti senti ORA IN QUESTO PRECISO MOMENTO. Leggi tutte le frasi attentamente in modo da essere sicura che la frase che scegli descriva come ti senti in questo momento in modo accurato e onesto.

1. In questo momento mi sento..
   - Estremamente insoddisfatta del mio aspetto fisico
   - Per lo più insoddisfatta del mio aspetto fisico
   - Moderatamente insoddisfatta del mio aspetto fisico
   - Un po' insoddisfatta del mio aspetto fisico
   - Né insoddisfatta né soddisfatta del mio aspetto fisico
   - Un po' soddisfatta del mio aspetto fisico
   - Moderatamente soddisfatta del mio aspetto fisico
   - Per lo più soddisfatta del mio aspetto fisico
   - Estremamente soddisfatta del mio aspetto fisico
2. In questo momento mi sento ….
   - Estremamente soddisfatta della mia taglia e forma del corpo
   - Per lo più soddisfatta della mia taglia e forma del corpo
   - Moderatamente soddisfatta della mia taglia e forma del corpo
   - Un po' soddisfatta della mia taglia e forma del corpo
   - Né insoddisfatta né soddisfatta della mia taglia e forma del corpo
   - Un po' insoddisfatta della mia taglia e forma del corpo
   - Moderatamente insoddisfatta della mia taglia e forma del corpo
   - Per lo più insoddisfatta della mia taglia e forma del corpo
   - Estremamente insoddisfatta della mia taglia e forma del corpo

3. In questo momento mi sento …

- Estremamente soddisfatta del mio peso
- Per lo più soddisfatta del mio peso
- Moderatamente soddisfatta del mio peso
- Un po' soddisfatta del mio peso
- Né insoddisfatta né soddisfatta del mio peso
- Un po' insoddisfatta del mio peso
- Moderatamente insoddisfatta del mio peso
- Per lo più insoddisfatta del mio peso
- Estremamente insoddisfatta del mio peso

4. In questo momento mi sento..

- Estremamente attraente fisicamente
- Molto attraente fisicamente
- Moderatamente attraente fisicamente
- Un po' attraente fisicamente
- Né attraente né non attraente
- Un po' non attraente fisicamente
- Moderatamente non attraente fisicamente
- Molto non attraente fisicamente
- Estremamente non attraente fisicamente

5. In questo momento mi sento..

- Estremamente peggio rispetto a come mi sento di solito circa il mio aspetto
- Molto peggio rispetto a come mi sento di solito circa il mio aspetto
- Abbastanza peggio rispetto a come mi sento di solito circa il mio aspetto
- Giusto un po' peggio rispetto a come mi sento di solito circa il mio aspetto
- Come al solito circa il mio aspetto
- Giusto un po' meglio rispetto a come mi sento di solito circa il mio aspetto
- Abbastanza meglio rispetto a come mi sento di solito circa il mio aspetto
- Molto meglio rispetto a come mi sento di solito circa il mio aspetto
- Estremamente meglio rispetto a come mi sento di solito circa il mio aspetto

6. In questo momento sento che appaio.

- Estremamente meglio rispetto a come appare la media delle persone
- Molto meglio rispetto a come appare a media delle persone
- Abbastanza meglio rispetto a come appare la media delle persone
- Giusto un po' meglio rispetto a come appare la media delle persone
- Come appare la media delle persone
- Giusto un po' peggio rispetto a come appare la media delle persone
- Abbastanza peggio rispetto a come appare la media delle persone
- Molto peggio rispetto a come appare la media delle persone
- Estremamente peggio rispetto a come appare la media delle persone

Social Appearance Anxiety Scale (SAAS, Hart et al. 2008; adopted in Study 3)

1 = *not at all* to 5 = *extremely*

English version

1. I feel comfortable with the way I appear to others.*
2. I feel nervous when having my picture taken.
3. I get tense when it is obvious people are looking at me.
4. I am concerned people would not like me because of the way I look.
5. I worry that others talk about flaws in my appearance when I am not around.
6. I am concerned people will find me unappealing because of my appearance.
7. I am afraid that people find me unattractive.
8. I worry that my appearance will make life more difficult for me.
9. I am concerned that I have missed out on opportunities because of my appearance.
10. I get nervous when talking to people because of the way I look.
11. I feel anxious when other people say something about my appearance.
12. I am frequently afraid I would not meet others' standards of how I should look.
13. I worry people will judge the way I look negatively.
14. I am uncomfortable when I think others are noticing flaws in my appearance.
15. I worry that a romantic partner will/would leave me because of my appearance.
16. I am concerned that people think I am not good looking.

Italian Translation

1. Mi sento a mio agio col modo in cui appaio agli altri
2. Mi innervosisco quando vengo fotografata
3. Divento tesa quando è chiaro che le persone mi stanno guardando
4. Sono preoccupata di non piacere alle persone a causa del mio aspetto fisico
5. Sono preoccupata che le persone parlino di difetti del mio aspetto fisico quando non sono presente
6. Sono preoccupata che le persone mi trovino fisicamente sgradevole
7. Temo che le persone mi trovino non attraente
8. Temo che il mio aspetto fisico renderà la mia vita più difficile
9. Temo di aver perso delle opportunità a causa del mio aspetto fisico
10. Mi innervosisco pensando a come appaio fisicamente quando parlo con le persone
11. Mi sento ansiosa quando qualcuno dice qualcosa sul mio aspetto fisico
12. Spesso temo di non raggiungere gli standard degli altri su come dovrei apparire
13. Temo che gli altri giudichino il mio aspetto fisico in modo negativo
14. Non mi sento a mio agio quando penso che qualcuno stia notando miei difetti fisici
15. Ho paura che un partner potrebbe lasciarmi a causa del mio aspetto fisico
16. Sono preoccupata che le persone pensino che io non sia bella

Collective Action (Female version; Adopted in Study 4)
Adapted from van Zomeren et al., 2004; Mallet et al. 2008

1 (not at all) 7 (very much so)

Italian version

Ti chiediamo ora di pensare e riflettere sulla condizione generale delle donne nella società italiana. Sulla base di questa riflessione, ti chiediamo di esprimere la tua personale posizione su ciascuna delle affermazioni di seguito riportate.

1) Posso capire come si sentono le donne italiane in questa condizione di discriminazione

2) Posso comprendere il sentimento di frustrazione ed umiliazione delle donne italiane rispetto alla loro condizione sociale

3) Le donne sono in parte responsabili per la condizione discriminatoria che vivono nella nostra società

4) Le donne dovrebbero sentirsi in colpa per gli atteggiamenti maschilisti nei confronti del loro gruppo

5) Provo rabbia per come le donne sono considerate in Italia

6) Mi infurio quando penso a come le donne sono rappresentate nella televisione italiana

7) Sono amareggiata per la condizione in cui si trovano le donne nella società italiana

8) Penso che la maggior parte delle donne sia disposta a fare qualcosa per cambiare la condizione sociale del loro gruppo

9) Penso che fra le donne sia diffuso il discontento circa la condizione di discriminazione del loro gruppo

10) Penso che le donne insieme possano cambiare la situazione sociale del loro gruppo

11) Penso che le donne possano contrastare la discriminazione verso il loro gruppo

12) Vorrei prendere parte ad una manifestazione contro la attuale condizione delle donne in Italia

13) Vorrei fare qualcosa insieme ad altre donne per protestare contro la condizione in cui siamo relegate

14) Vorrei unirmi ad una azione collettiva per fermare la discriminazione delle donne italiane