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Sex As Power: Attractive Women Link Sexuality and Power For Personal Gain

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Four studies uncovered a relation between women's physical attractiveness and their internalization of the link between personalized power–sex appeal. More (vs. less) attractive women felt stronger personalized power, endorsed sexual leveraging for acquiring/restoring power, and attempted to boost their attractiveness via products that enhance sex appeal when feeling powerless.

[to cite]:

Carlos J. Torelli, Chiraag Mittal, and Kathleen Vohs (2013) ,"Sex As Power: Attractive Women Link Sexuality and Power For Personal Gain", in NA - Advances in Consumer Research Volume 41, eds. Simona Botti and Aparna Labroo, Duluth, MN : Association for Consumer Research.

[url]:

<http://www.acrwebsite.org/volumes/1014729/volumes/v41/NA-41>

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From the Bedroom to the Bank: Novel Insights into Sex and Consumer Choice

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Paper #1: Conspicuous Consumption, Relationships and Rivals: Women's Luxury Products as Signals to Other Women

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Paper #2: Playing the Field: The Effect of Fertility on Women's Desire for Variety

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Paper #3: Sex as Power: Attractive Women Link Sexuality and Power for Personal Gain

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Paper #4: Sex Hormones & Economic Decisions: The Effect of Testosterone on Financial Risk Depends on Social Context

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SESSION OVERVIEW

The idea that “sex sells” is commonplace in the marketing world. But, is it possible that sexual motives influence consumer choice far beyond the draw of explicit sexual cues? While sexual cues are an effective method for attracting consumers' attention, research has yet to consider how consumers' sexual and mating concerns influence decisions particularly within consumer domains that, on the surface, have little to do with sex. This special session features groundbreaking research that combines business science with the natural sciences. Each set of findings provide a unique window into the mating-related mechanisms that can underlie our consumer choices and challenge some existing views of the factors that influence consumption.

The first two papers offer a fresh take on women's conspicuous consumption and desire for variety. In the first paper, Wang and Griskevicius investigate the role sexual rivals play in driving women's consumption of luxury goods. Four experiments show that women's conspicuous consumption is triggered by a desire to signal to other rival women, and that flaunting expensive products is effective at deterring rivals from stealing a romantic partner. The second paper, by Rae and Durante, examines a previously unconsidered factor that influences consumer variety seeking: the hormones that regulate fertility. Four experiments show that ovulating women desire greater variety in product choice and that this increase in variety seeking is driven by an increase in desire for new men.

The final two papers provide new evidence for how sex and power impact economic and consumer choice. The third paper, by Torelli, Mittal, and Vohs, focuses on how attractiveness influences women's internalization of a link between sexuality and power. Four experiments show that more (vs. less) attractive women endorse sexual leveraging for acquiring/restoring power and – subsequently – attempt to boost their attractiveness via products that enhance sex appeal when feeling powerless. The fourth paper, by Stanton and colleagues, switches gears to also shine a light on men. Two studies

challenge the notion that testosterone – a hormone responsible for driving sexual behavior and status striving – is also responsible for risky financial decisions. Findings are the first to demonstrate that *how* testosterone influences financial risk depends greatly on whether the decision has social implications or only impacts the self.

This session aims to *make a difference* by introducing research lines that open an exciting new frontier for marketing research. Separately, each paper in this session provides a different insight into the role sex plays in consumer choice. Together, these papers provide an additional perspective on the idea that “sex sells” by showing how, when, and why the bedroom can often lead to the bank. As such, the session would be of interest to a breadth of consumer researchers, including those interested in materialism, sexual economics, motivation, social perception, nonconscious processes, romantic relationships, and biological and evolutionary approaches to consumer behavior.

Conspicuous Consumption, Relationships and Rivals: Women's Luxury Products as Signals to Other Women

EXTENDED ABSTRACT

A designer handbag found on the shelves of stores such as Neiman Marcus, Saks Fifth Avenue, or Nordstrom costs anywhere from several hundred to several thousand dollars. Yet an average American woman purchases three new handbags each year, prominently flaunting designer brands such as Fendi, Gucci, Louis Vuitton, Marc Jacobs, Christian Dior, Prada, and Chanel. Spending on luxury goods amounts to as much as \$525 billion per year in the United States alone, with women's products accounting for over half of this consumption. Given women's passion for pricey possessions, why do they desire luxury goods?

Considerable research has examined why people purchase luxury products. Past work finds that the reasons for why consumers seek such possessions include everything from pursuing happiness and boosting self-esteem to signaling one's status and identity (Belk 1985; Han, Nunes, and Dreze 2010; Richins 1987; Veblen 1899). But there is reason to believe that luxury goods play an important role in another ubiquitous part of life-relationships. Recent findings suggest that men's conspicuous consumption plays a vital role in relationship by serving as a “sexual signaling system” (Sundie et al. 2011). In the current research, we examine whether women's conspicuous consumption might have any function in relationships.

We propose that women's conspicuous consumption may function as a signal to romantic rivals. We hypothesize that a woman can use luxury products to signal to other women that her romantic partner is especially devoted to her. In turn, flaunting expensive handbags and designer shoes might help women deter romantic rivals from poaching her relationship partner. We investigate the idea of whether women's conspicuous consumption might function as a signaling system to guard mates in four studies.

Study 1 examined whether other women infer information about a woman's relationship based on the luxuriousness of her possessions. Sixty-nine women were randomly assigned to read one of the descriptions about a woman either wear designer products or non-designer products at a party with her romantic partner. Results indicate that a woman was perceived as having a more devoted partner when she had designer compared to non-designer outfit and accessories ($M_s=5.40$ vs. 4.82 , $t=2.01$, $p=.048$).

Study 2 examined if experimentally activating a motive to guard a mate triggers women's conspicuous consumption. Using guided visualization manipulations from previous research (Grisevicius et al. 2007; Maner et al. 2007), we activated either a (1) mate guarding motive, (2) mate attraction motive, or (3) control. Because the desire for conspicuous goods is related to the size of product brand logos (Lee and Shrum 2012; Nunes et al. 2010), women were then given the opportunity to draw luxury brand logos on a handbag, shoe, car, and T-shirt that they would want to purchase. The dependent measure was the size of the logo women drew for each product. Findings showed that only a mate guarding motive altered the size of logos ($t(134)=3.21, p = .002$), leading women to draw luxury brand logos that were about twice the size compared to those in the other conditions.

Study 3 sought to conceptually replicate and extended the mate guarding finding from Study 2 using different dependent measures including desire to spend for both conspicuous and non-conspicuous consumption products. The results suggest that mate guard motive, does not simply lead women to want to spend more on any products, but is instead specific to products used for conspicuous consumption. Study 3 also ruled out two possible alternatives, showing that this effect is not driven by threat to one's self-esteem or by the mere presence of another woman.

Study 4 examined the intended audience of women's conspicuous product displays. Because women's conspicuous consumption is hypothesized to ward off female rivals, we predicted that the intended audience of women's luxury possessions would specifically be women who are potential threats to the relationships. We activated a mate guarding motive, but the situation was manipulated so that the woman's conspicuous products could only be seen by either other women or men. Thus, the study had three between-subjects conditions: (1) mate guarding – male audience, (2) mate guarding – female audience, and (3) control.

To assess conspicuous consumption, all participants earned 5 extra dollars in the study, which they could either take home or use to purchase raffle tickets to win a \$200 gift card for a spending spree at a luxury store (e.g., Neiman Marcus, Tiffany & Co., etc.). Participants could spend as much or as little of the \$5, with higher spending increasing the likelihood of getting the card. Findings showed that activating a mate guarding only increased women's conspicuous consumption when the audience were other women ($t(72)=2.90, p=.04$).

Additional data suggest that when a woman had luxurious possessions paid by her partner, other women were less willing to romantically pursue her relationship partner if the opportunity arose. Therefore, women's luxurious possession is in fact effective signal to facilitate mate guarding.

Overall, this research makes a contribution by identifying a novel function of women's conspicuous consumption, showing the workings of how luxury products can function as signaling system to ward off romantic rivals, and revealing how products play an important and previously unknown role in relationships.

Playing the Field: The Effect of Fertility on Women's Desire for Variety

EXTENDED ABSTRACT

While considerable past research has examined variety seeking in consumer choice (e.g., Kahn 1995), the current research is the first to examine whether women's desire for variety is influenced by a universal biological factor – the monthly ovulatory cycle.

The ovulatory cycle spans, on average, 28 days, during which a woman can become pregnant on about one week – the *ovulatory* phase of the cycle. Although most women do not know when they are ovulating, research has shown that ovulation can non-consciously alter women's psychology and decision-making. For example, near ovulation women have more fantasies about other men that are especially different from their current partner (Sheldon et al. 2006) and have more extramarital affairs (Bellis and Baker 1990). Ovulating women are particularly attracted to men other than their current partner who display markers of genetic fitness (e.g., symmetry, masculinity, social dominance; Durante et al. 2012; Garver-Apgar et al. 2006). These findings suggest that the hormonal fluctuations associated with ovulation may increase women's openness to variety – at least in men. Here, we explore whether this ovulatory-induced shift in preference for different men translates to the marketplace.

Study 1 examined whether ovulation increases variety-seeking in consumer choice. Women made 15 choices about nail polish color (out of 20 colors). Participants were told to select a nail color for each day (1 – 15) and were told they could select as many or as few nail colors as they preferred. Results showed that women chose a greater variety of colors near ovulation compared to when not ovulating ($M_{ovulating} = 6.73$ vs. $M_{not-ovulating} = 5.46; p = .044$).

Because we propose that women's desire for variety in product choice is a reflection of an ovulatory increase in openness to different men, Study 2 examined whether openness to sex with a new man mediates women's variety seeking. Women made 15 choices of nail color as in Study 1 and reported the likelihood they would date, have sex with, or engage in a brief affair with a man other than their current partner. Ovulating women sought greater variety in nail choice compared to women who were not ovulating ($M_{ovulating} = 6.63$ vs. $M_{not-ovulating} = 5.52; p = .056$). Ovulating women also reported higher likelihood estimates for having a sexual affair with other men ($M_{ovulating} = .179$ vs. $M_{not-ovulating} = -.076; p = .014$). The effect of ovulation on women's variety seeking was mediated by women's openness to sex with other men (.21; $SE = .14$; 95% BCI .027 – .647).

Given that mating motives appear to underlie the effect of ovulation on women's variety seeking, Study 3 sought to suppress the ovulatory effect on desire for variety by manipulating women's mating goals. While ovulation leads women to be open to short-term sex with attractive men, an important moderator of this effect is the quality of a woman's current romantic partner. Research finds that ovulation *does not* lead women to be interested in other men when their current partner is high in sexual desirability (e.g., Larson et al. 2013). This suggests that ovulating women should be motivated to retain a current mate if he is someone who is physically attractive. Study 3 therefore investigated whether a motive to retain an attractive partner (vs. a control) would suppress the effect of ovulation on variety seeking. Study 3 also measured variety seeking in four different product categories: nails, high heel shoes, candy bars, and restaurants.

There was no influence of fertility on variety by product type so the four product categories were converted into a variety seeking composite ($\alpha = .77$). As predicted, there was no difference in variety seeking between ovulating and non-ovulating women in the mate retention condition ($M_{ovulating} = 8.50$ vs. $M_{not-ovulating} = 9.40$), $p = .13$. Replicating Studies 1 and 2, ovulating women in the control condition chose a greater variety of products near ovulation compared to when they were not ovulating ($M_{ovulating} = 10.35$ vs. $M_{not-ovulating} = 8.65; p = .016$).

To this point, we have examined the effect of ovulation on variety seeking for both single and married women. However, unlike single women, married women have made a significant commitment to one partner and they may have considerably more to lose from

the dissolution of their relationship. Further, married women often wear a symbol of their commitment to one man in the form of a wedding ring. Because a wedding ring is considered to be a strong and universal symbol of commitment to one's partner (Chesser 1980), we reasoned that the act of removing and putting on one's wedding ring should augment feelings of commitment. Drawing on the idea that sensorimotor stimulation translates to cognitions associated with that stimulus (Ackerman et al. 2010; Chandler et al. 2012), Study 4 examined how removing and replacing one's wedding ring would influence the effect of ovulation on variety seeking. We hypothesize that removing one's wedding ring should lead to cognitions associated with lower commitment (akin to a mate attraction motive) and, thus, bolster the effect of ovulation on variety seeking. Conversely, the act of putting one's wedding ring back on (akin to a mate retention motive) should suppress the effect of ovulation on variety seeking. There was a significant interaction between fertility and condition, $p = .03$. While there was no difference in variety seeking by condition for women who were not ovulating ($p = .37$), our key prediction concerned how removing and replacing a wedding ring would affect variety seeking in women who were ovulating. Near ovulation, women sought more variety in product choice after they removed their wedding ring and less variety when they put their wedding ring back on ($M_{\text{RingOff}} = 10.52$ vs. $M_{\text{RingOn}} = 8.48$; $p = .035$).

Four studies show that the hormones associated with ovulation influence women's desire for variety. This research adds to the literature on how hormones can influence consumption behavior (Durante et al. 2011) and is among the first to demonstrate the mediating role mating motives play in consumer choice.

Sex as Power: Attractive Women Link Sexuality and Power for Personal Gain

EXTENDED ABSTRACT

It is often believed that women and men differ in their approaches for exercising power, in that women in powerful positions seem more likely than men to mentor and coach (Eagly and Johannesen-Schmidt 2001). Although women and men tend to differ in their emphasis on the personal versus relational self (Cross and Madson 1997), women nonetheless possess a personal self complete with individualized goals, desires, and preferences (Gabriel and Gardner 1999). Knowing that women generally use power for mutual gain while acknowledging that women have inner goals that they seek to attain for their own personal gain suggests that there will be circumstances in which women seek personal gain through power. When and how women seek power for personal gain was the focus on the current research.

Our tack was to study women's views about the meaning and purpose of power, particularly as it relates to the use of sex and attractiveness. Social interactions with men can offer an opportunity for some women to gain personal power. Sexual Economics Theory (Baumeister and Vohs 2004) proposes that sex is a female resource that bestows upon women considerable negotiating power in the context of heterosexual relationships. This power enables women to be able to request valuable resources (e.g., respect or material gifts) in order for the sexual exchange to occur. Women's negotiating power is particularly strong in the case of more (versus less) attractive women. Because attractive women are more desirable than others, they have even more of an upper hand and thusly the power to demand more resources (Baumeister and Vohs 2004). Since men often see the world through sexual glasses and interpret their social interactions with women in sexual terms (Shotland and Craig 1988), men can become quite concerned about gaining the approval of attrac-

tive women (Van Vugt and Iredale 2012). As a consequence, there is spillover from the heterosexual negotiation script into mixed-sex social interactions, which also are especially favorable to attractive women (Dion and Stein 1978). To the extent that more attractive women successfully leverage their physical attractiveness for fulfilling their personal goals, these women could both develop a stronger belief that power can be useful for personal gain and that leveraging one's physical attractiveness is an acceptable and effective means for doing so (Darley and Fazio 1980). Therefore, we predicted that more (versus less) attractive women, who can use their physical attractiveness more often and effectively, would have a higher likelihood to conceptualize power in personalized terms (i.e., that the purpose of power is for personal gain, Winter 1973), as well as to endorse the use of sexual leveraging for achieving or restoring power.

Four studies tested these predictions by comparing the beliefs, reactions, choices, and behaviors among women who were (self- or other-rated as) more or less attractive. Study 1 used established scales to measure different facets of personalized power related to one's ability to control/influence others for personal gain, aspiration for gaining social status, and desire to dominate others, as well as participants' physical attractiveness. Findings suggested that more (versus less) attractive women expressed aspirations to achieve high social status, thought that assertive, forceful, and self-assured behaviors are good, and more confidently believed that they can influence others and satisfy their own desires.

Study 2 directly assessed the link between women's physical attractiveness and the use of sexuality to acquire/restore power. Participants first answered questions in response to four interpersonal situations including some contexts in which targets were portrayed exercising or reacting to power (Torelli & Shavitt, 2010). Two situations involved leveraging sex appeal for acquiring/restoring power, whereas the other two involved forceful, non-sexual actions in response to abuses of power. These latter situations were included for comparison purposes to explore the possibility that more (versus less) attractive women are simply more likely to react to the negative feelings triggered by misuses of power. Next, participants answered questions that measured their self-reported tendencies to leverage their sex appeal for gaining power. Last, we measured attractiveness in two ways as a robustness check. The results demonstrated that attractiveness was positively related with women's approval of the use of sexual leveraging for acquiring or restoring power. Furthermore, the higher approval of sexual leveraging actions for acquiring power among more (versus less) attractive women was mediated by their own self-reported tendencies to leverage their sex appeal. Findings also show that attractiveness seems to be unrelated with the likelihood that women would react to the negative feelings triggered by powerlessness.

Study 3 experimentally manipulated feelings of powerlessness in order to directly test the extent to which more (versus less) attractive women seek to amplify their sex appeal when feeling powerless. We assessed women's choices for products that can enhance sex appeal after inducing (versus not) a sense of being powerless. Results showed that feelings of powerlessness prompted more attractive women to choose products that could boost their sex appeal, compared to their choices in a neutral condition and compared to less attractive women. Less attractive women in contrast, showed no differences as a function of condition. Study 4 directly measured women's attempts to boost their physical attractiveness in response to feelings of powerlessness using a behavioral measure, and used others' ratings of participants' physical attractiveness as the measure of attractiveness. The findings demonstrated feelings of powerlessness made more attractive women become more interested

in products that are instrumental for boosting their attractiveness. These effects were specific to such products, and did not emerge for products that were described in sexually-appealing terms but were not instrumental for boosting attractiveness. This argues against the alternative account that power is linked to the general concept of sex in more attractive women, suggesting that they do not possess a global link between power and sex.

The combined results of the studies provided converging evidence for the notion that feelings of power and sexuality are linked for women high in attractiveness, which therefore make these women more likely to compensate for a lack of power by attempting to boost their sex appeal.

Sex Hormones & Economic Decisions: The Effect of Testosterone on Financial Risk Depends on Social Context

EXTENDED ABSTRACT

Does testosterone influence risky decisions in economic and social domains? There has been recent speculation in the media that testosterone drives risky decisions, and that the Great Recession started in 2008 because there was “Too Much Testosterone on Wall Street” (Hewlett 2009). In spite of those strong claims, there was scant empirical research to corroborate them, and generally little was known about physiological factors that might account for individual differences in our risk preferences. In two studies, the present research explored the extent to which testosterone predicts individuals’ willingness to take risks when making economic decisions alone and when making socially-interactive economic decisions.

Decades of research have shown that testosterone drives mating behavior and is associated with social dominance, the pursuit of status, and aggression (Archer 2006; Mazur and Booth 1998; Stanton and Schultheiss 2009). For example, individuals with high testosterone levels pursue high-status, risk-laden careers (Dabbs et al. 1990; 1998), and army soldiers with the highest levels of testosterone are the most likely to abuse drugs, be violent, and go AWOL (Mazur, 1995). These behaviors put one’s social relationships as well as one’s health and well-being at risk. While testosterone is associated with these and other risky social behaviors, it is unclear whether or not high levels of testosterone predispose individuals to pursue risk in other domains such as economic decision making. The present studies examine not just how testosterone may relate to risky economic decisions, but also the extent to which the social nature of the economic decision may influence the relationship between testosterone and economic decision-making behavior.

Across studies, testosterone was collected and measured from saliva using standard methods and radioimmunoassay techniques (Schultheiss and Stanton 2009). Testosterone levels were z-scored within sex and collapsed over gender (Mehta et al. 2008).

Study 1 investigated the relationship between individuals’ testosterone levels and their tolerance of unfair offers made in the ultimatum game. The ultimatum game is a dyadic social economic game that involves the exchange of money between participants within a constrained format that allows one to compare how often a participant is willing to accept fair versus unfair exchange offers. Participants’ ($N = 57$) testosterone levels were negatively related to their acceptance of unfair offers, $r(55) = -.27, p = 0.04$, meaning that high-testosterone individuals’ were less tolerant of unfair offers. The relationship persisted when controlling for gender $\beta = -.28, p = 0.04$. Moreover, there was no relationship between testosterone levels and acceptance of fair offers, $r(55) = .11, p = 0.43$, which demonstrates that testosterone selectively predicts behavior when confronted with

unfairness. Unfairness may be perceived as a challenge to one’s dominance. Accordingly, one would predict that testosterone should have selective effects on decisions regarding unfair offers as opposed to fair offers, which is what the data reflect.

But, does testosterone always lead individuals to make riskier decisions? Study 2 investigated the relationship between testosterone and aversion to risk in economic decisions that people make independently. In addition to interrogating the direct relationship between economic risk aversion and testosterone, the potential effects of participants’ relationship status were also considered. In the domain of power and sex hormones, relationship status is a critical factor, such that positive association between power and sex hormones is strongest in those who are single (Stanton and Schultheiss 2007; Stanton and Edelstein, 2009). From an evolutionary perspective, testosterone may more robustly promote behaviors associated with the pursuit of power and economic gains in single individuals (Saad and Vongas 2009; Stanton and Edelstein 2009).

Participants’ ($N = 390$) risk aversion was determined through 120 trials in which they chose between a certain outcome (a guaranteed win) and a risky gamble that could potentially pay more or less than the certain outcome. Across the 120 trials, the values of the certain outcome, probabilities of winning the gamble, and the ratio of the expected value of the gamble to the value of the certain option were varied and randomized. Participants’ payment was dependent on their choices, which ensured that their behavior was incentive compatible.

Across all subjects, testosterone levels were positively associated with risk aversion, $r(388) = .13, p = 0.01$. In other words, low-testosterone individuals were the most risk seeking, which stands in contrast to received wisdom. This effect persists when controlling for gender $\beta(387) = .13, p = .01$. Further exploration of the effects of participants’ relationship status revealed that testosterone and risk aversion were particularly strongly correlated amongst those participants who were single, $r(211) = .19, p = 0.005$. This effect was then tested independently for each gender, and both single men and single women showed a similar relationship between testosterone and risk aversion, Men: $r(80) = .27, p = .02$; Women: $r(128) = .15, p = .09$. In contrast, testosterone and risk aversion were not significantly associated for those who were coupled, $r(175) = .04, p = .56$, and independent of testosterone, those in a relationship were not riskier than those who were single $t(388) = .12, p = .90$. It may be that low-testosterone individuals desire to pursue risk, but feel inhibited in social domains, which leads them to pursue risk in domains that are socially isolated such as economic decisions that are made independently. The findings suggest that testosterone’s relationship with risk aversion may be both counterintuitive as well as more complex than previously assumed.

The present studies demonstrate that testosterone is uniquely associated with risky decision making depending on social context and social factors. For social decisions, higher levels of testosterone predict greater risk and less tolerance of unfairness, whereas for economic decisions made alone, higher levels of testosterone predicted greater risk aversion. Interestingly, in both studies, the relationship between individuals’ testosterone levels and behavior were the same in men and women, which suggests that the putative male-specific role of testosterone in promoting riskiness is ill-founded. These studies suggest that individual differences in testosterone levels are a potential physiological mechanism that accounts for heterogeneity in economic risk preferences.

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