Original Article

MATING STRATEGIES AND SELF-PRESENTATION IN ONLINE PERSONAL ADVERTISEMENT PHOTOGRAPHS

Serge Gallant
Department of Epidemiology, McGill University

Loriann Williams
Department of Psychology, Queen's University

Maryanne Fisher
Department of Psychology, St. Mary's University

Anthony Cox
Department of Mathematics and Computing Science, St. Mary's University

Abstract
According to Buss and Schmitt's (1993) sexual strategies theory, mating strategies depend upon one's sex and whether they desire a short-term or long-term relationship. Men typically expend less reproductive effort than women and need only to ensure that they locate fertile mates, regardless of relationship type. Women tend to expend relatively more effort and seek long-term partners who are willing to provide resources, or they may choose mates with high genetic quality for a short-term relationship. Thus, the traits that men and women exhibit to prospective mates should be sex-specific. Our goal was to determine whether the photographs that accompany online personal advertisements reflect an awareness of sex-specific mating strategies, such that the sexes advertise distinct traits to potential mates. After conducting a pilot study, we collected 300 photographs from the online dating service "Lavalife" and examined them with respect to relationship type. We found women consistently advertise their reproductive fitness regardless of sought relationship type, directly supporting sexual strategies theory. However, men's photographs only provide indirect support for this theory, and there was minimal difference in men's portrayal of characteristics across relationship type.

Keywords: Sex differences, personal advertisements, sexual strategies theory, mate preferences

---

AUTHOR NOTE: Please direct correspondence to: Maryanne Fisher, Department of Psychology, St. Mary's University, 923 Robie Street, Halifax, Nova Scotia, B3H 3C3, Canada. Email: mlfisher@smu.ca

Introduction

Symons (1979) proposed that differences in human sexual behavior are due to sex-specific difference that occurred during evolution. Buss and Schmitt's (1993) took this position and extended it to propose sexual strategies theory. Based on this theory, they posit that men and women have different mating strategies due to sex differences in parental investment, such that women typically invest more in their children than men. Women have a limited number of ovum, a limited window for procreation, a long gestation period, post-partum lactation responsibilities, and, as a consequence, are usually the parent who primarily cares for the developing child. In view of women's greater reproductive investment, they have evolved different mating strategies than men, as suggested by sexual strategies theory. According to their theory, men should primarily focus on identifying fertile women who possess good parenting skills. In contrast, women should focus on identifying men who are able and willing to invest resources in them and their children, as their reproductive investment is considerably higher than men's and may prevent them from independently obtaining sufficient resources.

Researchers have found that mate preferences coincide with sexual strategies theory. For example, Townsend, Kline and Wasserman (1995) found men tend to exert more time and effort than women in looking for short-term relationships, so as to minimally invest their resources and energy while maximising their access to potential sexual partners. Thus, men, more than women, seek partners who are sexually receptive and who will not require them to provide a large investment into the relationship. For women, ambition and the ability to accrue resources are important when it comes to selecting a potential long-term partner, as these traits serve as an indication that a mate will invest in her and any resulting children (Buss & Schmitt, 1993). Women prefer men who are well educated, rich, intelligent, and high on the social chain (Buunk, Dijkstra, Fetchenhauer, & Kenrick, 2002). They also want men who are committed, ambitious (Minervini & McAndrew, 2006), and who have resources (Li, Bailey, Kenrick, & Linsenmeier, 2002).

Given sex differences in parental investment, such that it is more costly for women to engage in short-term relationships, women typically set higher standards for the men with whom they will engage in brief, sexual contact (Kenrick, Groth, Trost, & Sadalla, 1993). In these situations, women consider physical attractiveness more important than in a long-term mate (Kenrick et al., 1993). This preference may indicate women are attempting to mate with someone with high genetic quality, as attractiveness is thought to be an honest signal of gene quality (Hume & Montgomerie, 2001) Thus, these women might be trading-off the potential for resource investment for high physical attractiveness in a sexual partner (e.g., Gangestad & Simpson, 2000).

Although both women and men consider physical attractiveness important when seeking a short-term mate (Schmitt & Buss, 1996; Li & Kenrick, 2006), men generally consider it, as well as youthfulness, to be more important than women, especially for long-term relationships (Schmitt & Buss, 1996; Buunk, Dijkstra, Fetchenhauer, & Kenrick, 2002; Li, Bailey, Kenrick, & Linsenmeier, 2002). It is not surprising that physically attractive and youthful women are most desired, as both are tied to fertility (Buss, 2006; Kenrick, Keefe, Bryan, Barr, & Brown, 1995). Youthfulness can also be an indication that these women have more energy for raising children than would older women (Kenrick et al., 1995).

Mating Strategies as Portrayed in Personal Advertisements

One approach to exploring sex-specific mate preferences is to analyze the content of personal advertisements. These advertisements allow individuals to identify and screen potential partners, provide an opportunity to see what potential partners look like via photographs, and decide whether they have anything in common through personal descriptions (Couch & Liamputtong, 2008). While sex differences are not always found (Gonzales & Meyers, 1993), men advertise more often for an attractive partner in comparison to women (Bolig, Stein, & McKenry, 1984; Deaux & Hanna, 1984), and men more often request a photograph of a respondent (Wiederman, 1993). Although advertisers who reassure the reader they are attractive receive more responses than those who fail to mention this point (Lynn & Shurgot, 1984), women who do so receive more responses than men who include this type of information (Lynn & Shurgot, 1984; Goode, 1996; de Vries, Swenson, & Walsh, 2007). Furthermore, taller men receive more replies than those who are smaller in stature (Lynn & Shurgot, 1984), presumably because height is tied to resource indicators such as social and professional status (Jackson & Ervin, 2001).

As one might expect, due to the evolutionary basis of mate preferences (e.g., Buss, 2006), these findings are noticeably stable across cultures. For example, Rusu and Bencic (2007) analyzed the contents of 400 personal advertisements in Romania and found that women seek older men who are wealthy, and who have financial and job stability. Men advertised more than women about their wealth and resources, and were much more likely to include information on their financial and job security. Using a Canadian sample, Davis (1990) found that men were more likely to seek attractive partners, explicitly request a photograph, and discuss sex. Women, on the other hand, were more likely to desire partners who have high social status, and who are employed, intelligent, and looking for commitment. Finally, Minervini and McAndrew (2005) examined the preferences of mail-order brides from Russia, the Philippines, and Columbia. Their findings show that these women were interested in staying at home and raising children, and desired partners with good educational backgrounds.

Objectives

While previous research has examined the written component of online personal advertisements (e.g., Bolig, Stein, & McKenry, 1984; Deaux & Hanna, 1984; Gonzales & Meyers, 1993), there has been little attention paid to the photographs that accompany these advertisements. Therefore, our goal was to examine these photographs using the framework of Buss and Schmitt's (1993) sexual strategies theory.

We predicted that men and women, as a consequence of using distinct strategies to obtain mates, should present themselves differently. The photograph that one displays to viewers should contain features that provide potential partners with the information that they are seeking. Men tend to seek fertile, attractive mates, regardless of relationship duration, so women should provide photographs that display these characteristics. Likewise, women tend to seek mates who possess and will commit resources, so men should provide photographs that indicate their status, success, and financial stability when seeking long-term relationships. Furthermore, in brief, primarily sexual relationships, for which women place a premium on attractiveness (Kenrick et al., 1993),

Journal of Social, Evolutionary, and Cultural Psychology – ISSN 1933-5377 – Volume 5(1). 2011.

108

men should display their genetic fitness using photographs that indicate their attractiveness and physical fitness.

To explore these ideas, we first performed a pilot study to identify the information that could be successfully extracted from photographs accompanying personal advertisements. The results of the pilot study then permitted the formation of the actual hypotheses tested and reported later in this article.

Pilot Study

The purpose of the pilot study was to identify the information that could be extracted from a photograph in a consistent, uniform, accurate, and unambiguous manner. There is an incredible amount of information obtainable in photographic analysis. However, we wished only to extract information relative to mating strategies. Additionally, many factors appeared to be difficult to code consistently, and thus, needed to be refined for the purposes of our analysis.

We selected 30 photographs of men and 30 of women, such that there were 10 photographs for each of three relationship types used by the online dating company "Lavalife." Lavalife requires users to create a profile for either the intimate category (i.e., brief, sexual encounters), dating category, or long-term relationship category, which will be explained in more detail later. To ensure an accurate representation of the available photographs, every third photograph was chosen until 10 were collected, per category. We note that there is almost overwhelming variation in the photographs; there were vast differences in lighting, resolution quality, the size of the individuals, the objects in the background, and so on, and thus, the final coding criteria had to be clear and broad. To increase accuracy, we employed three coders to assist with this pilot study.

The clothing of the advertiser was initially coded into six categories according to casual observation and with guidance from the major divisions of clothing catalogues such as that of Sears Canada. These categories were: formal wear (e.g., tuxedo, ball gown, business suit), business casual (e.g., collared shirt with dress pants, blouse with dress pants), casual (e.g., jeans and T-shirt), athletic wear (e.g., tennis outfit, sports-related gear), dating clothes (e.g., embellished tank-tops and skirt, collared shirt with jean), and minimal clothing (e.g., underwear, bathing suits). However, such categories were ultimately very ambiguous and relied too much upon cultural awareness of clothing styles. For example, some individuals wear shorts and t-shirts as casual, beach clothes, while others do so for athletic purposes or as dating clothes. Similarly, a business skirt suit might be worn as formal wear but also as business casual or dating wear. In the end, we developed two coarse categories: minimal clothing (i.e., bathing suit, lingerie, or underwear) and regular clothing (i.e., anything not classified as minimal). Although broad, these categories did not demand any interpretation.

The next factor we examined and discarded was that of the advertiser's mood, as determined by facial expression, with the planned categories of happy, playful, seductive, serious, or other. The overlap and difficulty in accurately assigning a person to a specific category prevented this factor from being successfully coded and used. There was simply too much subjective interpretation of each category to obtain agreement between multiple coders. However, a binary decision regarding whether the advertiser was smiling was found to be accurately and consistently coded. Similar to mood, coding of the advertiser's cosmetic use (e.g., minimal, glamorous, theatrical) could not be performed consistently such that multiple coders could obtain agreement.

Coding of the advertiser's pose was highly ambiguous when only a head-shot was provided, while some poses were difficult to assign to a single category (e.g., sitting/lying on a bed). Even crude categories, such as vertical versus horizontal, were difficult to assign when the advertiser was, for example, leaning over the hood of a car, with her chin on her hands. The only pose that we found to be easily coded was the display of musculature (i.e., flexing in a traditional body-builder's pose). As well, it was possible to effectively identify the use of upward-facing camera angles that tended to increase the apparent height of the advertiser, as compared to a downward or level angle.

We also tried to code the location of each photograph. However, there were simply so many different possible locations that it became apparent that any analysis would have far too much variation to be meaningful. Instead, we collapsed locations into the broad categories of indoors and outdoors. In the same way, accompanying items in a photograph (e.g., automobiles, beds) was so excessive that we decided not to code this information. We had slightly more success with jewelry, but found that in many photos, it was impossible to identify if it was present (e.g., small stud earrings) or its form (i.e., a bracelet or a watch). We did, however, find that we could accurately code the wearing of eyeglasses (i.e., prescription/clear, or none). Thus, apart from eyeglasses, we also ignored this factor.

While examining hair color (i.e., red, brown, blonde, unnatural, grey/white, black) did not seem relevant, we decided to code whether the advertiser had grey/white or other colored hair. We chose to examine this factor since grey hair is a significant indicator of age.

Hypotheses

Once the coding factors and guidelines had been established using a pilot study, we were able to form hypotheses and then perform the primary study. Sexual strategies theory suggests that each sex develops distinct solutions to the problems faced during mating and that these solutions are evident by sex-specific behaviors. Thus, our hypotheses are aimed at identifying sex differences, such that we document what each sex displays in their online advertisement photographs.

First, we predict that women will smile more than men. Smiling is known to enhance attractiveness (Mehu, Little, & Dunbar, 2008) and men consider attractiveness to be more important in a potential mate than women, in general (e.g., Buss, 2006). Women also smile more than men as a "default" facial expression (Hall & Friedman, 1999).

Second, we hypothesize that there will be more photographs of men with grey hair. Grey hair is an attribute that clearly indicates age (Tobin & Paus, 2001). As reviewed, men tend to value youthfulness in a mate more than women, so women are more likely to disguise grey hair. Although women's hair turns grey earlier in life than men (e.g., Gerike, 1990), they should be more likely to conceal their grey hair in an effort to appear young, and so there should be more men with grey hair.

Third, we hypothesize that there are more photographs of men who exaggerate their height using an upward camera angle or show their full height in comparison to women. As mentioned, women tend to prefer men who are tall, and research on the written content of personal advertisements shows that taller men receive more responses (Lynn & Shurgot, 1984), possibly because it is coupled with resource indicators such as social and professional status (Jackson & Ervin, 2001).

Journal of Social, Evolutionary, and Cultural Psychology – ISSN 1933-5377 – Volume 5(1). 2011.

110

Fourth, we predict that men will emphasize their strength or pose in a way that emphasizes their musculature. Women tend to prefer mates with high physical fitness and athleticism, and more men than women boast about their athletic abilities (Buss, 1988).

Fifth, we hypothesize that more photographs of men will be taken in outdoor settings, and photographs of women in indoors settings. Outdoor scenes imply ruggedness and athleticism, while indoor scenes imply domesticity. Ruggedness and athleticism, similar to strength, were probably indicators of men's ability to accrue resources and serve as protectors in humans' ancestral environment. Moreover, domesticity, such as childcare, cooking and cleaning, often occurs indoors, and men more than women value these traits in potential mates (Eastwick et al., 2006). Therefore, we predict that men will have more photographs set in an outdoor location, and women more than men will opt for an indoor location.

Sixth, we predict that women will show their bodies more, and hence, provide photographs where they are wearing minimal clothing (i.e., lingerie, underwear, bathing suits). Men are thought to be more interested in sexual variety than women, and are more concerned with sexual access (Symons, 1979). Lingerie and nakedness is suggestive of undressing for a sexual encounter, and simultaneously, demonstrates that the advertiser is attractive and has nothing to hide. Similarly, we expect women will expose more of their bodies in the photographs in an effort to advertise their physical attractiveness.

Seventh, we predict that women should be less likely than men to provide photographs that contain individuals other than oneself. The research on contrast effects (e.g., Kenrick & Gutierres, 1980) suggests that people evaluate attractiveness in relative terms, comparing the individuals against each other, such that having multiple individuals in a photograph could alter how attractive one is perceived to be. Men place a higher emphasis on women's attractiveness when seeking a mate, and thus, women should avoid the possibility of being negatively evaluated by rarely including others in their photographs. Additionally, if women are attempting to advertise sexual access (e.g., Symons, 1979), then they should appear alone, as sexual encounters typically occur in private without others present.

Eighth, because wearing of eyeglasses indicates a biological (and possibly genetic) weakness, we predict that women will wear them less than men in their photographs. Since men generally value physical attractiveness more than women, with attractiveness serving as a proxy for genetic quality, women should be less likely to wear them. Furthermore, since eyeglasses are associated with professional occupations and higher education (Parssinen, 1987), they might be worn by men who wish to suggest that they are occupationally successful and well-educated.

It must be noted that some of these sex-specific behaviors exhibit an interaction with the type of relationship that is being sought. Instead of forming specific hypotheses for the interaction of various relationship types by sex, which would add needless complexity, we offer the following, general predictions. We hypothesize that, for those seeking short-term relationships, characteristics linked to attractiveness, physical fitness, and health will be displayed in the photographs, as both sexes desire these traits in short-term mates (e.g., Schmitt & Buss, 1996; Li & Kenrick, 2006). As for long-term relationships, we hypothesize that men will more readily exhibit characteristics linked to the display of resources and financial success, given these are linked to women's mate preferences (Buss, 2006). Men do not appear to significantly alter the importance they place on female attractiveness, and hence, we do not predict any difference due to relationship type for women's advertisements.

Methods

Participants

A total of 150 male and 150 female photographs were analyzed. The photographs were collected according to the type of relationship each individual sought. Thus, we collected photographs of 50 men and 50 women who were seeking an intimate relationship, 50 men and 50 women who were seeking a dating relationship, and 50 men and 50 women who were seeking a long-term relationship, for a total of 300 photographs. Any individual who cross-posted their advertisement to more than one relationship category was excluded. All individuals had an advertised age that ranged between 18 and 35 (men's age in years: $M = 29.36$, $SD = 3.53$, women's age: $M = 27.23$, $SD = 4.36$). With respect to ethnicity, 66.7% of advertisers identified themselves as White, 1.0% as Black, 6.3% as Asian, 8.6% selected "Other" (e.g., Arabic, Indigenous/First Nations, Hispanic/Latino), and 17.4% chose not to answer the question.

Measures

Lavalife (http://www.lavalife.com) is a Canadian dating website that allows users to sign up for a free account and create a profile to meet potential partners. Lavalife is distinct from other companies in that users can post their profile under any of three relationship types: intimate relationship, dating relationship, or long-term relationship. According to the company, Lavalife has 1,800,000 active members with over 26,000 individuals joining each week, and it is the leading dating website in Canada (Lavalife, 2009).

While there are many other dating websites available (e.g., http://www.eHarmony.com or http://www.flirtbox.com), Lavalife was suitable for this study for a variety of reasons. First, the interpretation of the results was facilitated by the fact that the advertisers and researchers are based in Canada, and thus, culturally aligned. Second, the trinary choice of desired relationship duration (as opposed to the more frequent binary choice of short or long-term) allows greater opportunity to test whether desired relationship type influences how individuals present themselves. That is, one might be seeking very little interaction but want to quickly engage in sexual activity (i.e., intimate relationship), or someone whom they could get to know on a casual basis with the possibility of sexual activity (i.e., dating), or someone whom they might want to be with for a long period of time (i.e., long-term relationship). Third, since it is a free service, Lavalife provides minimal barriers to users of lower economic status. Lastly, evidence from the company's marketing information, the level of public advertising, and word-of-mouth suggests that it is one of the most popular, well-used, and successful online dating services accessed by Canadians.

Procedures

In order to view user profiles and the accompanying photographs, a man's and a woman's dummy account were created. It is critical to note that the photographs used in this study were those that were posted with the actual advertisement. Thus, although some users post multiple images to their accounts that are displayed if one selects their

Journal of Social, Evolutionary, and Cultural Psychology – ISSN 1933-5377 – Volume 5(1). 2011.

112

username and accesses the rest of their account, only the first, publically viewable photograph was used for this study.

The results generated by Lavalife's search engine change each time one undertakes a search, due to a variety of technical factors regarding the administration of the website (e.g., updates due to the addition and deletion of users). As a consequence, for each sex by relationship type category (e.g., women seeking an intimate relationship), the photographs were collected within the same time period. All settings were changed to allow the maximum number of user profiles to be listed, with the exception of age. Only individuals between the ages of 18 and 34, which is Lavalife's core demographic (Lavalife, 2009), were analyzed. Note also that both French and English language advertisements were included, since these are the two official languages of Canada. As well, if individuals indicated that they were not single, only profiles where individuals indicated they were looking for a liaison outside their dyadic relationship were selected; those who stated they were looking for a multi-partner experience that would include their current partner were excluded from the study. Advertisers who used monochromatic photographs, who were wearing hats, or who wore anything that covered their head were excluded from the analysis, as it did not allow for proper coding of the hypothesis concerning the presence of grey hair. Finally, photographs that were of low quality and indecipherable (e.g., were extremely blurry or dark) were omitted.

Once the list of advertisers was generated by Lavalife, the advertiser's photograph was placed into a computer folder until 100 photographs per relationship category was reached. This procedure was followed for both men and women. Additionally, the photo sets were orthogonal, as care was taken to ensure that none of the selected individuals had repeated their posting in another type of relationship. This method (initially selecting 100 photographs then looking for duplicates) was followed until 50 photographs were selected for each relationship type for both women and men.
Results

For the first seven analyses, the presence of a trait was coded as "1," versus the absence as "0," and then the number of photographs with the trait were summed and normalized via square-root transformations to create the dependent variable (e.g., Osborne, 2002). Univariate analyses of variance (ANOVA) models were then created for each dependent variable, with the independent variables of sex of the advertiser (male vs. female) and the relationship type (intimate, dating, vs. long-term). Level of significance was set *a priori* as $\alpha < .05$ and two-tailed analyses were used throughout. Note that due to the occurrence of missing data, the degrees of freedom vary according to the analysis.

Results

Smiling

Photographs were coded according to whether the advertiser was displaying a smile or not. There was a significant main effect for sex, $F(1, 294) = 9.62$, but not for relationship type, $F(2, 294) = .88$, $p = .42$, or the interaction of sex and relationship type, $F(2, 294) = .39$, $p = .68$. More women ($M = .75$, $SD = .43$; recall that 1 = trait is present, 0 = absent) than men ($M = .59$, $SD = .49$) smiled in their photographs, supporting our first hypothesis.

Journal of Social, Evolutionary, and Cultural Psychology – ISSN 1933-5377 – Volume 5(1). 2011.

113

Displays of Grey Hair

Photographs were coded as to whether the advertiser had grey hair (including partial coloring) or not. There was a significant main effect for advertiser sex, $F(1, 256) = 4.64$, $p = .03$, but not for relationship type, $F(2, 256) = .32$, $p = .73$. As hypothesized, more men ($M = .03$, $SD = .18$) displayed grey hair than women, such that no woman did so ($M = 0.0$, $SD = 0.0$).

Use of Camera Angle

Camera angle was used to test the hypothesis that men emphasize their height. Photographs taken with a downward facing camera angle and those taken with an angle level to the head were collapsed together and compared to those with an upward facing angle. There was a significant main effect for sex, $F(1, 264) = 6.51$, $p = .01$, but not for relationship type, $F(2, 264) = .16$, $p = .85$, nor for the interaction of sex and relationship type, $F(2, 264) = .53$, $p = .59$. As hypothesized, men ($M = .12$, $SD = .33$) were more likely to use an upward facing camera angle than women ($M = .04$, $SD = .19$).

Displays of Strength

Photographs were coded according to whether the advertiser was obviously flexing their muscles or not. There was a significant main effect for sex, $F(1, 293) = 4.10$, $p = .04$, but not for relationship type, $F(2, 293) = 1.80$, $p = .17$, or for the interaction of sex and relationship type, $F(2, 293) = 1.80$, $p = .17$. As predicted, men ($M = .03$, $SD = .16$) flexed their muscles more than women, such that none of the latter did so ($M = 0.0$, $SD = 0.0$). However, this finding must be interpreted with caution because, of the 150 men, only four posed in this way; three in the intimate category and one in the dating category.

Indoor or Outdoor Setting

Photographs were coded as being set in an outdoor location or not. There was a significant main effect for sex, $F(1, 272) = 8.70$, $p = .003$, but not for relationship type, $F(2, 272) = .06$, $p = .94$, or for the interaction of sex and relationship type, $F(2, 272) = .33$, $p = .72$. As hypothesized, men ($M = .32$, $SD = .47$) were more likely than women ($M = .17$, $SD = .37$) to use an outdoor setting.

Clothing

Clothing was coded as being minimal (i.e., the advertiser was wearing a bathing suit, underwear, or lingerie) or not (i.e., regular clothing). This analysis revealed a significant main effect for sex, $F(1, 283) = 10.98$, $p = .001$, as well as for relationship type, $F(2, 283) = 4.43$, $p = .01$, but not for the interaction of sex with relationship type, $F(2, 283) = .86$, $p = .42$. Women ($M = .13$, $SD = .33$) more often wore minimal clothing than men ($M = .03$, $SD = .16$). Pairwise comparisons revealed that those in the intimate category ($M = .14$, $SD = .35$) were significantly more likely to wear minimal clothing than those in the dating category ($M = .03$, $SD = .17$), $p = .01$. There was no significant difference involving the relationship category ($M = .06$, $SD = .24$); relationship vs.

Journal of Social, Evolutionary, and Cultural Psychology – ISSN 1933-5377 – Volume 5(1). 2011.

114

intimate, $p = .11$, and relationship vs. dating, $p = .68$. Ten women wore minimal clothing for the intimate category, compared to five in the relationship category and three in the dating category, whereas three men wore minimal clothing in the intimate category, and one for each of the relationship and dating categories.

Exposure of Skin

To test the hypothesis that women would expose more skin than men, the advertisers' bodies were coded such that each major part of the body received a value (1 = fully or partially exposed, 0 = not exposed), which was then summed to provide an overall score. The body parts were: lower legs, upper legs, back, stomach and chest, neck, lower arms, and upper arms. Note that Lavalife does not allow one to post nude photographs, so it was unnecessary to include buttocks or genitals. An ANOVA was then performed with the dependent variable the sum of the body parts that were exposed.

There was a significant main effect for sex, $F(1, 294) = 72.71$, $p < .000$, but not for relationship type, $F(2, 294) = 1.52$, $p = .22$, or for the interaction of sex and relationship type, $F(2, 294) = 1.25$, $p = .29$. Women ($M = 2.93$, $SD = 1.48$) exposed more skin than men ($M = 1.63$, $SD = 1.14$), as predicted.

Presence of Others in Photograph

The photographs were coded as to whether the advertiser was alone or not. There was a significant main effect for relationship type, $F(2, 294) = 3.42$, $p = .03$, but not for sex, $F(1, 294) = 1.70$, $p = .19$, nor for the interaction of sex and relationship type, $F(2, 294) = 1.70$, $p = .18$. Therefore, our hypothesis of a sex difference was not supported. Pairwise comparisons revealed that photographs in the intimate ($M = .12$, $SD = .31$) versus dating ($M = .26$, $SD = .42$) categories significantly differed from each other, $p = .01$, as well those in the intimate versus relationship ($M = .23$, $SD = .42$) categories, $p = .05$.

Eyeglasses

Finally, the photographs were coded as to whether or not the advertiser was wearing eyeglasses. There was no main effect for sex, $F(1, 294) = 1.21$, $p = .27$, nor for relationship type, $F(2, 294) = .94$, $p = .39$. The interaction of sex and relationship type approached significance (but was not significant), $F(2, 294) = 2.81$, $p = .06$. Thus, for the purposes of exploration, we used Tukey HSD post-hoc analysis and found a significant difference, such that 10 men seeking a relationship wore eyeglasses, compared with only two in the intimate category, $p = .05$. The eight men in the dating category were not significantly more or less likely to wear eyeglasses than the other relationship types. For women, the difference was less noticeable and did not yield any significant differences; there were four advertisers in each of the relationship and dating categories wearing eyeglasses, and six in the intimate category.

Discussion

The goal of the current study was to analyze the photographs that accompany online personal advertisements using predictions based on sexual strategies theory. In

Journal of Social, Evolutionary, and Cultural Psychology – ISSN 1933-5377 – Volume 5(1). 2011.

115

general, the majority of our hypotheses were supported; we found that women advertised their reproductive fitness regardless of relationship type, and that men displayed different characteristics to women.

We supported our hypothesis that women were more likely than men to smile in their photographs, which increases evaluations of attractiveness (Mehu, Little, & Dunbar, 2008). Mehu, Little, and Dunbar (2008) found that smiling faces are perceived as being healthier, more pleasant, more outgoing, and more generous than unsmiling faces. Moreover, they discovered that smiling had much more of an impact on evaluations of attractiveness for women in comparison to men. However, it might simply be more expected that women will smile in their photographs since they do so more often than men in other contexts (Hall & Friedman, 1999). We also note that we had hoped to code more facial expressions but, as mentioned, we could not due to problems with accuracy. In the future, one solution might be to use, or modify, the Facial Action Coding System originally developed by Ekman and Friesen (1978) that relies upon action units with anatomical underpinnings.

Women also more often wore minimal clothing and exposed more of their bodies, compared with men, perhaps to display their attractiveness or reproductive fitness. Perhaps one reason for this finding is that women are displaying their unblemished skin, which is a display of good health, which, in turn, signals reproductive value (Buss, 2006). In fact, women in the intimate category were the most likely to wear minimal clothing, possibly to suggest sexual access and emphasize physical attractiveness. In addition, women who appear less conservative might be favored as sexual partners, at least for shorter relationships (Buss & Schmitt, 1993). Finally, women might be attempting to advertise sexual exclusivity, and relatedly, paternity certainty, in that the photographs in the intimate category did not include other individuals, supporting our hypotheses.

It should be noted that advertisers most often appeared alone in their photographs in the intimate relationship category, which we did not predict. We hypothesized that women's photographs would show this pattern, across all relationship types, as women would not want their attractiveness judged relative to others, due to the contrast effect. Hence, they were expected to appear alone more often than men. Instead, we did not find a sex difference but found that both men and women appeared alone when advertising for an intimate relationship.

One potential explanation for this finding is that the sexes are behaving the same way, but for different reasons. That is, men may be attempting to be seen as maximally attractive to women, because women place higher demands on male physical attractiveness when they are candidates for a brief sexual relationship (e.g., Kenrick et al., 1993). Thus, men are attempting to avoid the contrast effect. In comparison, women could be advertising their sexual exclusivity to respondents, which is important to men due to their need for paternity certainty. A related possibility is that individuals are advertising their sociality and outgoingness in the other relationship categories by having other individuals surrounding them. Women, and to a lesser extent, men, seek mates who show these traits when considering someone for a long-term relationship (e.g., Hatfield & Sprecher, 1995). An alternative, more parsimonious, explanation is that since sexual interactions will involve only the advertiser and the respondent, advertisers are attempting to alleviate any confusion by merely showing themselves only. If this were the case, they are simply ensuring that potential partners will know whom the interaction will involve.

Women were also found to have grey hair significantly less often than men, which may show a deliberate effort to appear youthful, since women's hair turns grey at an earlier age than men's hair (Parssinen, 1987). Therefore, women could be artificially coloring their hair in an effort to appear more youthful to potential mates. It should be noted that the age range of the advertisers was restricted to a maximum of 34, so it is very probable that most individuals did not have any noticeable grey hair yet, and future researchers might want to examine this finding using an older sample. Moreover, it could be the case that some of these men with grey hair were, in fact, older and were lying about their age in order to have access to younger women.

We also supported our hypothesis that women's photographs would be set in indoor locations. Indoor locations imply domesticity, such as cooking and childcare, both of which men consider in potential mates (Eastwick et al., 2006). Together, all of these results suggest women are aware of men's mate preferences and associated mating strategies, and select the photographs that accompany their online personal advertisement accordingly.

As for men, they were significantly more likely to use an upward camera angle, which emphasizes height. As aforementioned, height is tied to social standing (Jackson & Ervin, 2001), and the use of an upward camera angle increases the perception of height for the viewer. In addition, men prefer relatively shorter women (Li & Kenrick, 2006), which could explain why women took more photographs with the camera level to their heads or angled downwards, as this would minimize the person's stature. Furthermore, the composition of an image in film and television is used to convey certain feelings and perceptions. Specifically, downward camera angles can make the viewer feel as though they have some power over the character, while upward pointing camera angles is used to accentuate the character's size, and makes them appear more impressive and imposing (Fox, 2003). Advertisers could be selecting their photographs with the intention of conveying these visual messages.

Men were also found to flex their muscles more often than women, perhaps to demonstrate strength and athletic fitness. As well, men's photographs were more often taken in an outdoor location, which could indicate ruggedness, adventurousness or athleticism. These traits are consistent with those preferred by women, albeit more so for a short-term relationship, or at least less preferred than resourcefulness for a long-term relationship (e.g., Kruger, Fisher, & Jobling, 2003).

One critical limitation of the current study is that it was not possible to consistently code items that relate to men's potential to accrue resources or indicators of current wealth. Sexual strategies theory (Buss & Schmitt, 1993) suggests women consider these characteristics to be highly important in a potential mate, and intimately linked to women's mating strategies. That is, women seeking a long-term mate place a higher emphasis on men's resources, while those seeking a primarily sexual relationship consider men's physically attractiveness and associated genetic quality to be more important (e.g., Gangestad & Simpson, 2000; Buss, 2006; Li & Kenrick, 2006). Although we attempted to code features that are linked to wealth, such as clothing, jewelry, setting, and items in photographs, we were unsuccessful given the variance in the photographs and the inconsistency in coding. Thus, we could not examine whether men seeking a long-term relationship displayed more items related to wealth, whereas those seeking a sexual short-term relationship emphasized their attractiveness. Further research is required to determine whether there exists a way to code for an advertiser's display of resources.

Journal of Social, Evolutionary, and Cultural Psychology – ISSN 1933-5377 – Volume 5(1). 2011.

117

This said, one variable that indirectly suggests that the above trend is accurate is the presence of eyeglasses. Eyeglasses are linked to occupation, such that higher-educated and higher-income professionals more often wear eyeglasses, while "blue collar" workers do not (Parssinen, 1987). We found that significantly more men in the relationship category wore glasses, compared to the intimate category, which could imply that the former is accentuating resource potential while the latter is accentuating genetic fitness.

A second limitation is that individuals may be less than truthful in the way they present themselves in their photographs. For example, prisoners who frequent dating websites or are looking to meet pen pals are apt to misrepresent at least one aspect of their profile (Tewksbury, 2005). In addition, high self-monitors tend to be more deceitful than low self-monitors with individuals they are interested in dating (Rowatt, Cunningham, & Druen, 1998). While individuals might misrepresent themselves on a certain trait, the person must balance this mistruth with the knowledge that they might meet a person in the future (Ellison, Heino, & Gibbs, 2006). Furthermore, if a person altered their photograph, the traits they would have exaggerated or minimized would likely be traits they deemed important to a potential partner and therefore, deception in this form does not limit the results of this study.

Future researchers might opt to examine which advertisements receive the most replies from individuals. One could code the photographs and then examine what characteristics are linked to higher success in attracting potential partners for a given relationship type, for example. As well, researchers could investigate the photographs used by individuals who place advertisements across multiple online dating websites and determine whether the photographs vary according to the type of relationship sought. Casual observation suggests some companies specialize in helping individuals find marriage partners, while others specialize in helping find an obligation-free sexual partner. If researchers could track the same individual across these websites, it would be possible to see if people post different photographs in response to the desired outcome. Finally, future research could attempt to replicate the results of the current study with a cross-cultural sample. Given the evolutionary basis of sexual strategies theory, and that this theory was used to construct our hypotheses, our findings should be accurate and consistent across a wide variety of cultures.

Using the conceptual framework of sexual strategies theory, we analyzed photographs that accompanied online dating advertisements according to one's sex and relationship type. Overall, we found that women presented themselves in such a way so as to maximize displays of reproductive fitness. We were unable to find evidence that men display resources to potential mates, but did find that they do display different traits than women. Therefore, we obtained indirect support that men are posting photographs in accordance with this theory. This research exposes an effective resource, with high ecological validity, for exploring people's awareness of opposite-sex mate preferences. The photographs accompanying personal advertisements, when subjected to analysis, provide researchers with a visual depiction of the traits that advertisers wish to emphasize and show potential mates. The development of improved techniques to code and analyze photographs of this type should provide additional opportunities for researchers to further their investigations into mate preferences and mating strategies.

References

Bolig, R., Stein, P.J., & Mckenry, P.C. (1984). The self-advertisement approach to dating: male-female differences. *Family Relations, 33*(4), 587-592.

Buunk, B.P., Dijkstra, P., Fetchenhauer, D., & Kenrick, D.T. (2002). Age and gender differences in mate selection criteria for various involvement levels. *Personal Relationships, 9,* 271-278.

Buss, D.M. (1988). The evolution of human intrasexual competition: Tactics of mate attraction. *Journal of Personality and Social Psychology, 54*(4), 616-628.

Buss, D.M. (2006). Strategies of human mating. *Psychological Topics, 15*(2), 239-260.

Buss, D.M. & Schmitt, D.P. (1993). Sexual strategies theory: An evolutionary perspective of human mating. *Psychological Review, 100*(2), 204-232.

Couch, D. & Liamputtong, P. (2008). Online dating and mating: The use of the internet to meet sexual partners. *Qualitative Health Research, 18*(2), 268-279.

Davis, D. (1990). Portrayals of women in prime-time network television: some demographic characteristics. *Sex Roles, 23*(5/6), 325-332.

de Vries, J.M.A., Swenson, L., & Walsh, R.P. (2007). Hot picture or great self-description: Predicting mediated dating success with parental investment theory. *Marriage & Family Review, 42*(3), 7-34.

Deaux, K. & Hanna, R. (1984). Courtship in the personals column: The influence of gender and sexual orientation. *Sex Roles, 11*(5/6), 363-375.

Eastwick, P.W, Eagly, A.H., Glick, P., Johannesen-Schmidt, M.C., Fiske, S.T., Blum, A.M., Eckes, T., Freiburger, P., Huang, L.I., Frenandez, M.L., Manganelli, A.M., Pek, J.C., Castro, Y.R., Sakalli-Ugurlu, N., Six-Materna, I., & Volpato, C. (2006). Is traditional gender ideology associated with sex-typed mate preferences? A test in nine nations. *Sex Roles, 54,* 603-614.

Ekman, P. & Friesen, W. (1978). *Facial action coding system: A technique for the measurement of facial movement.* Palo Alto, CA: Consulting Psychologists Press.

Ellison, N., Heino, R., & Gibbs, J. (2006). Managing impressions online: Self-presentation processes in the online dating environment. *Journal of Computer-Mediated Communication, 11,* 415-441.

Fox, B. (2003). 3ds max 6 animation: CG filmmaking from concept to completion. Emeryville, CA: McGraw-Hill/Osborne.

Gangestad, S. & Simpson, J. (2000). The evolution of human mating: Trade-offs and strategic pluralism. *Behavioral and Brain Sciences, 23,* 573-644.

Gerike, A. E. (1990). On gray hair and oppressed brains. *Journal of Women and Aging, 1,* 35-46.

Gonzales, M.H. & Meyers, S.A. (1993). "Your mother would like me": Self-presentation in the personal ads of heterosexual and homosexual men and women. *Personality and Social Psychology Bulletin, 19*(2), 131-142.

Goode, E. (1996). Gender and courtship entitlement: responses to personal ads. *Sex Roles, 34*(3/4), 141-169.

Hatfield, E., & Sprecher, S. (1995). Men's and women's preferences in marital partners in the United States, Russia and Japan. *Journal of Cross-Cultural Psychology, 26,* 728-750.

Hume, D., & Montgomerie, R. (2001). Facial attractiveness signals different aspects of "quality" in women and men. *Evolution and Human Behavior, 22,* 93-112.

Journal of Social, Evolutionary, and Cultural Psychology – ISSN 1933-5377 – Volume 5(1). 2011.

119

Jackson, L.A. & Ervin, K.S. (2001). Height stereotypes of women and men: The liabilities of shortness for both sexes. *The Journal of Social Psychology, 132*(4), 433-445.

Kenrick, D.T., & Gutierres, S.E. (1980). Contrast effects and judgments of physical attractiveness: When beauty becomes a social problem. *Journal of Personality and Social Psychology, 38*, 131-140.

Kenrick, D.T., Groth, G.E., Trost, M.R., & Sadalla, E.K. (1993). Integrating evolutionary and social exchange perspectives on relationships: Effects on gender, self-appraisal, and involvement level on mate selection criteria. *Journal of Personality and Social Psychology, 64*(6), 951-969.

Kenrick, D.T., Keefe, R.C., Bryan, A., Barr, A., & Brown, A. (1995). Age preferences and mate choices among homosexuals and heterosexuals: A case for modular psychological mechanisms. *Journal of Personality and Social Psychology, 69*(6), 1166-1172.

Kruger, D., Fisher, M. & Jobling, I. (2003). Proper and dark heroes as dads and cads: Alternative mating strategies in British Romantic literature. *Human Nature, 14*, 305-317.

Lavalife. (2009). Advertise with us. Accessed on January 20, 2009 from http://lavalife.com/007/member/advertising.act?context=airr.

Li, N.P., Bailey, J.M., Kenrick, D.T., & Linsenmeier, J.A.W. (2002). The necessities and luxuries of mate preferences: Testing the tradeoffs. *Journal of Personality and Social Psychology, 82*(6), 947-955.

Li, N.P. & Kenrick, D.T. (2006). Sex similarities and differences in preferences for short-term mates: What, whether, and why. *Journal of Personality and Social Psychology, 90*(3), 468-489.

Lynn, M. & Shurgot, B.A. (1984). Responses to Lonely Hearts advertisements: Effects of reported physical attractiveness, physique, and coloration. *Personality and Social Psychology Bulletin, 10*(3), 349-357.

Mehu, M., Little, A.C., & Dunbar, R.I.M. (2008). Sex differences in the effect of smiling on social judgment: An evolutionary approach. *Journal of Social, Evolutionary, and Cultural Psychology, 2*(3), 103-121.

Minervini, B.P. & McAndrew, F.T. (2006). The mating strategies and mate preferences of mail order brides. *Cross-Cultural Research, 40*(2), 111-129.

Osborne, J. (2002). Notes on the use of data transformations. Practical Assessment, Research, and Evaluation, 8. Article retrieved August 31, 2009, from http://pareonline.net/getvn.asp?v=8&n=6.

Rowatt, W.C., Cunningham, M.R., & Druen, P.B. (1998). *Personality and Social Psychology Bulletin, 24*(11), 1228-1242.

Rusu, A.S. & Bencic, A. (2007). Choosing a mate in Romania: A cognitive evolutionary psychological investigation of personal advertisements market. *Journal of Cognitive and Behavioral Psychotherapies, 7*(1), 27-43.

Schmitt, D.P. & Buss, D.M. (1996). Strategic self-promotion and competitor derogation: Sex and context effects on the perceived effectiveness of mate attraction tactics. *Journal of Personality and Social Psychology, 70*(6), 1185-1204.

Symons, D. (1979). *The Evolution of Human Sexuality*. Cambridge, MA: Oxford University Press.

Tewksbury, R. (2005). Personal ads from prisoners: Do inmates tell the truth about themselves? *Federal Probation, 69*(2), 32-34.

Journal of Social, Evolutionary, and Cultural Psychology – ISSN 1933-5377 – Volume 5(1). 2011.

120

Tobin, D.J., & Paus, R. (2001). Graying: Gerontobiology of the hair follicle pigmentary unit. *Experimental Gerontology, 36*, 29-54.

Townsend, J.M., Kline, J., & Wasserman, T.H. (1994). Low-investment copulation: Sex differences in motivations and emotional reactions. *Ethology and Sociobiology, 16*, 25-51.

Wiederman, M. (1993). Evolved gender differences in mate preferences: Evidence from personal advertisements. *Ethology and Sociology, 14*, 331-335.

Journal of Social, Evolutionary, and Cultural Psychology – ISSN 1933-5377 – Volume 5(1). 2011.

121