Health Status Effects on Human Female Mate Preferences & Sociosexuality

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Abstract

Much literature suggests that the sociosocial strategies of females are highly sensitive and consequently responsive to change and its parameters. Through the investigation of an unexplored contextual variant—health status—this study aimed to broaden the understanding of the facilitative nature of human female sociosexuality and mate preferences paradigms. We recruited normally cycling women between the ages of 18 and 30 when they were sick (A) had them complete a questionnaire designed to obtain, among other things, measure of their symptom severity and sociosexuality (B) had them evaluate the appeal of two computer manipulated markers of sexual dimorphism (those present in the faces of men and those in the pitch of their voices), and lastly asked those same women to complete the same measures two weeks later when they were recovered. Reported here are the statistically significant findings and evolutionary explanations of the sociosexual differences participants reported between the sick and recovered conditions. Specifically, significantly contrast existed for four measures of sociosexuality (comfort having casual sex with multiple partners, present mate prospectivity, self-assessed mate value, and reported degree of sexual desire). These preliminary findings suggest more research on the influence health status has on human female sexuality and its moderators, is warranted.

Introduction

The evolutionary literature has interpreted the variance in female sexuality measures as facultative properties of preference & sociosexuality. The Facultative Properties of Preference & Sociosexuality. These properties are characterized by consistently elevated levels of sexual desire, fantasy more, become more intrasexually competitive, and are consequently more receptive and prospective (Bullivant et al 2004, Fisher 2004, Durante 2008). Lastly, ovulating women exhibit a preference for (A) phenotypic cues indicative of biological quality (B) auditory cues of masculinity and (C) a weaker preference for traits indicative of femininity (Kosinski et al 2005, Puts et al 2005, Gangestad & McNair 2004).

3. Condition Dependent Sexuality: Mate Value, Sociosexuality & Partnership Status—Being a mate of good condition—of high mate value—affords a preference paradigm that uncompromisingly prefers the characteristics that make a person evolutionarily fit (Bakker-Kamilar & Mazzi 1999). As such females with high self-assessed (and other-assessed) mate value are likely to prefer masculine and symmetrical faces (Little et al 2001). Moreover, research has shown that the temporal context of a relationship only affects the mate choice criteria of women with low mate value (Penton-Voak et al 2003). Lastly, partnerwomen are intrasexually competitive and have been found to prefer sexual dimorphism in short term extra-marital/extra-partner relationships and feminine features in long term relationships (Durante 2007, Little et al 2002).

4. Socioeconomic Status—In Malaysia and the U.K., women of high SES placed more value on a waist-to-chest ratio showcasing a broad upper body than they did on overall body mass index; the primary component of bodily attraction for the low SES group was overall body weight (Swami & Trope 2005).

5. Contextual Health—The selection pressure favoring masculinity is strongest in women with a low national health index (NHI). The preference for masculinity is additionally predicted by pathogen disgust sensitivity (DeBruine et al 2010). Cross-cultural research has also shown that women in areas with higher risks of infectious disease, more than their counterparts, prefer masculinity; similar findings have been replicated in laboratory settings (Penton-Voak et al 2004, Little Jones Debrane 2011).

6. Effects of Disease on Mating Effort & Sexuality—Energy budgets, though fixed, are not static. In the presence of disease, budgets adapt to investment demands by catalyzing their production and producing an appropriate trade-off. In both human males and non-human females, when sick, resources that are on severity it may threaten survival, mating efforts are muted and immune system investments increase (Mucelnik 2001, Wingfield et al 1998). When fitness benefits of sexual reproduction are inflated, immune induced trade-offs are mediated in a manner that allows for a reallocation of energy to mating effort (Owen-Ashley & Wingfield 2006). The manner in which trade-offs are mediated are sex specific: males more than females suppress mating efforts in the face of sickness and this is likely because the costs of reproduction exponentially increase under sick conditions (Aubert et al 1997, Geary 2000, Avrutin & Yermiya 1999). The proximate mechanisms by which mating efforts are muted stimulate emergency life history stages that give rise to (adaptive) sickness behaviors (Adelman & Martin 2009).

The Facultative Properties of Preference & Sociosexuality

1. Life History Theory—Age affects sociosexual strategy and the preference for masculinity. Women at peak reproductive age have been found to express both (a) a preference for cues indicative of masculinity and (b) more open sociosexualities than they older counterparts (Koscinski 201)

2. The Endocrinology of the Luteal & Follicular Phases—During the luteal phase women experience an acute increase in progesterone. Accordingly, women employ the use of prophyllactic precautions that affect both their mate preferences and behavior (Kieslman & Feo 2010). Specifically, they have been found to prefer both (A) feminine male voice pitches and (B) facial health cues (Puts et al 2006, Jones et al 2005). Ovulation also alters mate preferences and sociosexuality, whereas, women experience elevated levels of sexual desire, fantasize more, become more intrasexually competitive, and are consequently more receptive and prospective (Bullivant et al 2004, Fisher 2004, Durante 2008). Lastly, ovulating women exhibit a preference for (A) phenotypic cues indicative of biological quality (B) auditory cues of masculinity and (C) a weaker preference for traits indicative of femininity (Kosinski et al 2005, Puts et al 2005, Gangestad & McNair 2004).

Methodology

19 normally cycling adult females, mean age 22, experiencing the symptoms of an upper respiratory infection were completed a six page questionnaire designed to assess sociodemographic data, sociosexuality measures, relationship status, symptom severity, and current, if any, hormonally altering method of contraception and/or medication. Participants evaluated (1) the appeal of pre-coded male voice social ratings, on a 1-5 scale; (2) three sets of 2D images, of male voices; and (3) five sets of 2D images, of female voices. Participants were asked to evaluate the 2D photographs in terms of five characteristics (health, “niceness”, “masculinity”, and long-term/short-term attractiveness), trials were not timed. For the follow-up condition, subjects completed the same measures, two-weeks later, via an online portal.

Conclusions & Further Research

At the heart of the context specific nature of female sexuality lays one core principle: compulsory energetic investments (like those of immune system response as motivated by self-maintenance) cause tradeoffs that change behavior and psychology (e.g. sociosexuality and mate preferences).

Though, stimuli data was not analyzed, significant results for four measures of female sociosexuality were nevertheless found. The difference between participants reported degree of sexual desire during the sick condition was lower than that reported in the recovered condition. Moreover, both a bivariate correlation and nonparametric comparison of sexual desire and symptom severity between conditions found that as symptom severity increased sexual desire respectively diminished. But—given that there is a contextual dependency for any given strategy—might desire or another measure of sociosexuality be furthermore moderated by variables that have the capacity to affect female reproductive value (RV)? We hypothesized that high mate value individuals as well as those in a relationship would benefit least from reproduction during the sick condition because they have higher RV than their single, low mate value, counterparts. We used a general linear model to test the differences in desire between subjects, with relationship status and high mate value as covariates, and no significant differences were found. However, given the limitations of the study’s design (e.g. its small sample size and use of self-report data) the possibility of the relationship existing has not been discounted. Lastly three other measures of sociosexuality, when ran independently, exhibited statistically significant contrasts. Women in the recovered condition report (A) a higher level of hypothetical comfort to have casual sex with multiple partners, (B) increased feelings of streakiness and overall body and facial attractiveness, and (C) when asked to evaluate how attractive they perceived their current, if any, partner, answered that their current was self-assessed attractiveness. Such findings, though preliminary, warrant further research. Such research should identify the proximate mechanisms responsible for the condition contrasts. Moreover, research on the effect health status might have on human female mate preferences should target the effect facial features like symmetry and cues of ‘good health’ might have on attraction assessments. Lastly, it would be interesting to see if a facultative preference for a type of immunocompatibility marker varies across health status conditions.

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