

gasms, in their timing relative to partner orgasm, and in the sexual activities during which they occur, but we do not yet know how much of this variability can be attributed to relatively stable differences among females, and how much to attributes of their partners. These two sources of variability will undoubtedly prove to be confounded, and yet they must be separated before we can be confident that female orgasm really functions to bias the outcome of sperm competition.

## Analyses of mating differences within-sex and between-sex are complementary, not competing

Todd K. Shackelford, Gregory J. LeBlanc,  
Richard L. Michalski, and Viviana A. Weekes

*Division of Science-Psychology, Florida Atlantic University, Davie, FL 33314.*  
{tshackel; gleb2044; rmic5640; vwee9812}@fau.edu

**Abstract:** Analyses of between-sex differences have provided a powerful starting point for evolutionarily informed work on human sexuality. This early work set the stage for an evolutionary analysis of within-sex differences in human sexuality. A comprehensive theory of human sexual strategies must address *both* between-sex differences and within-sex differences in evolved psychology and manifest behavior.

Gangestad & Simpson (G&S) present a clear and convincing theoretical case for the evolution of conditional mating strategies in human males and females. In addition, the authors present an organized and impressive array of empirical data corroborating their theoretical claims. G&S's analysis of the conditional mating strategies of humans relies on several cornerstones of modern evolutionary psychological science. These cornerstones include an appreciation that adaptations are not optimally designed; that adaptations have both costs and benefits in reproductive currencies; that organisms face "trade-offs" in how a limited quantity of time and energy can be allocated to solving different adaptive problems; and that adaptations do not operate in a vacuum, but instead require input for their operation (Dawkins 1976; Williams 1966).

G&S have significantly advanced the field of human sexuality by providing a cogent analysis of within-sex differences in male and female sexual strategies. The authors take as a starting point that previous work on human sexuality informed by an evolutionary perspective (e.g., Buss 1989; Buss & Schmitt 1993) over-emphasized between-sex differences. They contend that previous work paints a picture of human males as exclusively interested in short-term sexual relationships and of human females as exclusively interested in long-term, committed relationships. Early work in human sexuality informed by an evolutionary psychological perspective addressed sex differences in mating psychology and behavior, in part because these differences are so cleanly and clearly predicted from straightforward evolutionary logic (Symons 1979; Trivers 1972; for review, see Buss 1994b). None of this early work, however, discounted the reality of within-sex differences in sexual behavior and psychology. Instead, much of this early work noted that a weakness of evolutionarily-informed analyses of human sexuality is that within-sex differences were not fully explicable based on then-current theoretical accounts (see, e.g., Buss 1994b; Buss & Schmitt 1993; DeKay & Buss 1992).

The early focus on differences between the sexes in sexuality was a reasonable and powerful starting point for evolutionary psychological work on human sexuality. G&S correctly note that this early work failed to successfully explain within-sex differences in mating. But this was not the intent of this early work on human sexuality informed by an evolutionary perspective. The intent of this early work was to document predictable and on-average differences between men and women in their mating desires and behaviors. This focus on sex differences soon brought to the fore-

front the presence of substantial within-sex differences. A comprehensive and empirically supported analysis of within-sex differences in human sexuality awaited the insight of researchers such as G&S.

G&S provide a missing piece to the puzzle of human mating psychology and behavior. Men and women, on average, clearly differ in several key features of sexual psychology and behavior. All men are not alike, however, and neither are all women alike. We now have a comprehensive theory and supportive empirical work to explain these within-sex differences. Between-sex differences and within-sex differences are different and complementary, not competing, levels of analysis. One need not argue that there are either between-sex differences or within-sex differences. There are both.

The thrust of the target article is that within-sex differences are substantial and worthy of focused theoretical and empirical work. We agree, and we expect that researchers who have produced the work on sex differences in human sexuality also agree. We are concerned, however, that some readers might misunderstand G&S as arguing that within-sex differences are more important than between-sex differences in human sexuality. This sort of misunderstanding is akin to arguing that the neurobiological level of analysis is more important than the psychological level of analysis in understanding human cognition. Neither level of analysis is more important; instead, they are equally important but definitively different levels of analysis. And so is it the case with analyses of between-sex differences and within-sex differences in human sexual psychology and behavior. Previous work by researchers such as Buss and Schmitt (1993) advanced the field of between-sex differences. G&S provide a valuable contribution to the emerging field of within-sex differences. A comprehensive theory of human sexuality must address *both* levels of analysis.

## Sexual attractiveness: Sex differences and overlap in criteria

John Marshall Townsend

*Department of Anthropology, The Maxwell School, Syracuse University,  
Syracuse, NY 13244-1090. jmtsu44@aol.com*

**Abstract:** Women with high sociosexual orientation inventory (SOI) scores may trade signs of willingness to invest for signs of ability to invest, instead of, or in addition to, genetic benefits. The target person's status traits affect women's judgments of sexual/physical attractiveness more than men's. An objective measure of a physical trait such as FA is therefore crucial in untangling the factors affecting women's judgments of attractiveness.

Gangestad & Simpson (G&S) propose an interesting thesis and provide a thorough analysis of pertinent literature to support it. Their argument has important implications for research on sexual attractiveness and mate selection and deserves to be explored from a variety of angles. I wish to clarify only a few points.

In real life, both sexes' judgments of attractiveness are typically affected by both physical and social traits (Townsend 1989; 1993; 1998). In some conditions, however, one sex may be unaffected by traits that significantly affect the other. Male law students, but not females, were affected by models' physical attractiveness when models were portrayed as having high status (Townsend & Roberts 1993). Women's judgments, but not men's, of physical, dating, or sexual attractiveness were affected by peer opinion (Graziano et al. 1993), target persons' costume (Townsend & Levy 1990), dominance (Sadalla et al. 1987), and apparent socioeconomic status (Townsend & Wasserman 1998). Consequently, when studies indicate that some women (e.g., women with high SOI scores) place more emphasis on physical attractiveness (e.g., Townsend 1993), it is not certain whether the traits assessed as "physical attractiveness" are physical, social, or both. An objective