

Beyond Artificial, Sex-Linked Distinctions to Conceptualize Female Sexuality: Comment on Baumeister (2000)

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The authors comment on three aspects of R. F. Baumeister's (2000) theoretical article on female sexuality. Questioning the predominance of nature versus cultural factors in accounting for sexual outcomes for men and women, the authors draw attention to the similarities (as opposed to differences) in the sexual attitudes, behaviors, and responses of men and women, and directly question the suggestion of "controlling" women's sexual attitudes, behaviors, responses, etc. to meet social needs for change.

In his article, "Gender Differences in Erotic Plasticity: The Female Sex Drive as Socially Flexible and Responsive," Baumeister (2000) reviewed evidence regarding complexities in women's and men's sexuality. While judiciously highlighting the problems in the design, methodology, and statistical assumptions inherent in much of the extant sexuality literature (Abramson, 1990), Baumeister presented data to support the thesis that "the female sex drive is more malleable than the male in response to sociocultural and situational factors" (p. 347), that is, that females evidence greater erotic plasticity than males. Specifically, Baumeister presented multiple lines of data to bolster three predictions for his theory of women's erotic plasticity, namely, (a) women will exhibit more intraindividual variation than men across lifetime sexual behaviors, (b) women's sexuality will be affected to a greater degree by specific sociocultural variables, and (c) women will exhibit lower levels of sexual attitude-behavior consistency than men. As a whole, the evidence garnered to support these predictions is persuasive. Yet the broader conclusions drawn by Baumeister, as well as the implications he suggested for the future utility of the notion of female erotic plasticity, are considered from alternative perspectives. In this commentary, we discuss three central issues.

Nature Versus Culture

Our first comment relates to Baumeister's interpretation of the findings regarding the role of nature versus culture on sexual outcomes for the two genders. Baumeister (2000) wrote:

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The general conclusion from the adolescent and adult evidence is that the balance between nature and culture is different for the two genders, at least in terms of their sexuality. Men's sexuality revolves around physical factors, in which nature is predominant and the social and cultural dimension is secondary. For women, social and cultural factors play a much greater role, and the role of physical processes and biological nature is relatively smaller. These findings reverse one cultural stereotype, which is that civilization is male whereas women are closer to nature. In sexuality, at least, women are the creatures of meaning (which invokes the sociocultural contexts), whereas men are the creatures of nature. (pp. 368–369)

We question the assertion of predominance of nature for men and social/cultural factors for women. Instead, we suggest that what appears to be natural or biologically based may be significantly influenced by social/interpersonal factors, as well as the reverse, that seemingly social/interpersonal factors may be influenced by biological processes. We find this case for interactionism particularly compelling when we view Baumeister's analysis of the data within a reproductive and evolutionary context.

For humans, as for most mammals, the minimal reproductive investment for females is higher than that for males (Trivers, 1972). Both fertilization and gestation occur within the female, lactation occurs at least initially following birth, and women continue to serve as the primary caretakers even after weaning. These reproductive processes ensure that the maternity of an infant is always known, yet limit the number of offspring a female can produce and care for during her lifetime (Buss & Schmidt, 1993). In contrast, for males, the reproductive involvement can be minimal and can end with the contribution of sperm. Hence, the male reproductive system maximizes the potential number of offspring a male may sire by means of multiple sexual partners yet leaves open the question of paternity for any one offspring (Buss & Schmitt, 1993).

Given these reproductive differences, it would have been particularly adaptive for the female, who has a substantial reproductive investment and a clearer relationship to (and responsibility for) her offspring, to manifest strong attachments to her infants but

also to be selective in choosing mates who can provide needed resources (e.g., food, shelter), thereby facilitating offspring survival through the provision of nutrition and protection. Buss and colleagues (Buss, 1989; Buss & Schmidt, 1993), for example, argued that because of these reproductive differences, men and women differ in their relative use of short- and long-term sexual mate selection strategies. According to this theory, females display a greater tendency to seek and attach to sexual mates who show long-term ability and willingness to invest resources for the couple's offspring (Buss & Schmitt, 1993; Majerus, 1986; Maynard Smith, 1991). In contrast, males more commonly utilize short-term mating strategies (relative to females) to secure reproductive advantage relative to other competing males.

Considering sexuality from this broader context, one might hypothesize that a strong affiliative style and/or a focus on the relationship context within which sex occurs would have a particular adaptive value for women. In addition to these important natural reproductive mechanisms, are there other biologically based mechanisms that may facilitate or prime women's affiliative or contextual approach to sexuality? Recent animal research on the neurobiological bases of mammalian affiliative behaviors has suggested that this may indeed be the case. For example, oxytocin, a hypothalamic neurohormone, is known to stimulate such female mammalian functions as milk ejection during lactation and uterine contraction at parturition, as well as being released at female sexual orgasm. Recent research with female rodents and sheep has indicated that this neurohormone also stimulates maternal caregiving behaviors (Keverne & Kendrick, 1992; Pedersen, 1997; Pedersen, Ascher, Monroe, & Prange, 1982), fosters the female's development of monogamous pair-bonds with sexual partners (Carter et al., 1997; Insel, 1997; Insel, Young & Wang, 1997), and is critically regulated by female reproductive hormones (Amico, Crowley, Insel, Thomas, & O'Keefe, 1995; Crowley, Insel, O'Keefe, Kim, & Amico, 1995; Insel, 1997; Thomas & Amico, 1996). This research speaks to the possibility that women's sexuality is not necessarily less natural or biologically based than is male sexuality, but, instead, that women's sexual attitudes, behaviors, and responses are driven by different biological drives than are men's (i.e., those that foster the development of close affiliative relationships and partner commitment over shorter term sexual encounters).

One may also examine the flip side of the argument, namely, that as males show more consistency in their sexual attitudes and behaviors and less intraindividual variation in sexual practices, this is a reflection, in part, that their sexual drives are more natural or biologically based rather than being a product of culturally based phenomena. Yet is this necessarily the case? Indeed, female gender socialization is more consistently communal, emphasizing nurturing, empathy, and the provision of social and emotional support. In contrast, males' gender socialization is focused on achieving status, dominance, and coalitions of males to compete against other males (Geary, 1999; Gilligan, 1982). A meta-analytic review of more than five decades of personality research supported this gender-linked dichotomy of nurturance versus agency as reported by females and males both over time and across cultures (Feingold, 1994). We suggest that males are apt to manifest their agentic traits across situations, and in the sexual domain in particular, as it is within that domain that they compete with other males. Thus, they are more apt to possess attitudes, initiate sexual behaviors, and

manifest sexual responses that are consistent with agency. Indeed, this agentic sexual stance may itself explain a good deal of the attitude-behavior and intraindividual consistency seen in men's sexual lives.

Similarly, our study of women's and men's sexual self-views (or sexual self-schemas) points to the role of differing gender-appropriate goals in the sexual domain. In separate research programs that mapped both women's (Andersen & Cyranowski, 1994) and men's (Andersen, Cyranowski, & Espindle, 1999) sexual self-views, we found that men's sexual self-views—unlike women's—included facets directly relevant to the male gender role, which, for men, included qualities akin to agency. That is, men described a "sexual man" as one who manifests aggressive, powerful, domineering, independent, and individualistic traits within sexual arenas. These gender relevant descriptors also had particular sexual relevance for men, as they were correlated with men's lifetime sexual behaviors, use of sexual coercion, and positive attitudes regarding sexual activities outside of committed sexual relationships, among other relevant outcomes (Andersen et al., 1999). Thus, we cannot agree with Baumeister's (2000) assertion that men's sexuality is viewed as having "relatively rigid, innate determinants" (p. 347), whereas women's sexuality is, by contrast, "malleable and mutable," and "responsive to culture, learning, and social circumstances" (p. 347). Instead, the sexual forces of both genders are likely driven by an interaction of biological and social factors. Yet physiological, reproductive, and socialization differences between the sexes may dictate the exploration of different evolutionary, biological, and developmental processes that may operate for women versus men. It seems premature (and possibly incorrect) to assert that, for males, sexuality is driven by innate biological forces whereas, for females, sexuality varies according to cultural dicta.

Sexual Attitudes, Behaviors, and Responses: How Different Are Women and Men?

Our second comment relates to the fact that Baumeister's (2000) article downplayed areas in which the genders are, in fact, quite similar in their sexual attitudes, behaviors, and responses. For example, the meta-analysis of Oliver and Hyde (1993) published in this journal is important to consider. They examined two and a half decades (1966–1990) of research on the direction and magnitude of gender differences in eight aspects of attitudes about sexuality (attitudes toward premarital intercourse, homosexuality, extramarital sex, sexual permissiveness, anxiety about sex, sexual satisfaction, double-standards, and masturbation) and nine aspects of sexual behavior (incidence of kissing, incidence of petting, incidence of heterosexual intercourse, age of first intercourse, number of sexual partners, frequency of intercourse, incidence of masturbation, incidence of homosexual behavior, and incidence of oral-genital sexual behavior). In Table 1, we briefly summarize their findings. Their meta-analysis indicated that gender differences in sexual attitudes and behaviors are, by and large, few and far between—data not supportive of either the magnitude or the breadth of differences in attitudinal or behavioral domains that Baumeister's analysis would suggest. Even with this quantitative procedure for comparing results across studies, there can be interpretation involved in regarding effects as large versus small. In

Table 1
Magnitude of Gender Differences as a Function
of Effect Size for the Measure

Magnitude of and descriptor (Cohen, 1969) for effect size			
Measure	<i>k</i>	<i>d</i>	95% confidence interval for <i>d</i>
<i>d</i> < .2; no gender difference or only "trivial"			
Homosexual civil liberties	14	-0.00	-0.03 to 0.02
Attitudes toward homosexuality	28	-0.01	-0.04 to 0.02
Kissing incidence	15	-0.05	-0.10 to 0.01
Sexual satisfaction	15	-0.06	-0.09 to -0.03
Masturbation attitudes	12	0.09	0.04 to 0.14
Oral sex incidence	21	0.10	0.05 to 0.15
Petting incidence	28	0.11	0.07 to 0.15
<i>.2 < d < .5</i> ; gender difference is "small"			
Number of sexual partners	12	0.25	0.19 to 0.32
Double standard	7	-0.29	-0.37 to -0.21
Extramarital attitudes	17	0.29	0.26 to 0.32
Frequency of intercourse	11	0.31	0.27 to 0.36
Intercourse incidence	135	0.33	0.32 to 0.35
Homosexual incidence	19	0.33	0.30 to 0.37
Anxiety, fear, guilt	11	-0.35	-0.44 to -0.26
Premarital attitudes	46	0.37	0.35 to 0.40
Age at first intercourse	8	0.38	0.30 to 0.45
Intercourse-engaged	5	0.43	0.32 to 0.54
<i>.5 < d < .8</i> ; gender difference is "moderate"			
Intercourse-committed	10	0.49	0.44 to 0.53
Sexual permissiveness	39	0.57	0.55 to 0.60
<i>d > .8</i> ; gender difference is "large"			
Intercourse-casual	10	0.81	0.75 to 0.87
Masturbation incidence	26	0.96	0.92 to 1.00

Note. *k* represents the number of effect sizes. Positive values of *d* reflect male respondents' having more permissive/positive attitudes, greater endorsements, more frequent behavior, etc. Negative values of *d* reflect female respondents' having more permissive attitudes, greater endorsement of the double standard, higher levels of anxiety, fear or guilt, higher levels of sexual satisfaction, etc. From "Gender Differences in Sexuality: A Meta-Analysis," by M. B. Oliver and J. S. Hyde, 1993, *Psychological Bulletin*, 114, p. 43. Copyright 1993 by the American Psychological Association. Adapted with permission of the authors.

Table 1, we provide Cohen's (1969) descriptors of the criteria (e.g., trivial, small, moderate, large). However, another way to evaluate effect-size data is to consider overlap (or lack thereof) of the distributions for each gender, as offered by Eagly (1995). Considering the "small" group differences in Table 1, the distributions of scores in the two groups are, on average, 85% overlapping and 15% nonoverlapping. For "medium" group differences, the distributions are 67% overlapping and 33% nonoverlapping. For "large" group differences, the distributions are 53% overlapping and 47% nonoverlapping. Thus, even when one finds behavioral and attitudinal differences between the genders in the sexual domain and differences ranging from trivial to large, it is important to note that there remains substantial overlap and similarity between the genders even for those few differences regarded as moderate or large.

Table 1 indicates that the most notable differences occur between genders for two sexual behaviors—the frequency of uncommitted, casual sex and the frequency of masturbation. We discussed the evolutionary differences that may be influential in the difference in casual sex. Alternatively for Baumeister (2000), such differences are likely due to proximate causes such as men's differentially stronger sex drive (pp. 351–352), their hormonal milieu (the nature factor; p. 349), and their greater awareness of bodily cues indicating sexual arousal (p. 349). Considering the basis of women's response pattern, the result of which is a lower frequency for casual sex, Baumeister suggested that this is due, in part, to a proximal decisional process (perhaps of the automatic variety) that switches from no to yes. He elaborated:

Women are negative toward most potential sex partners (i.e., most men) but occasionally switch to positive. A negative response is the woman's default option, as it were. . . . That is, when a couple begins having sex, it is mainly because the woman has changed her decision: The woman initially rejects the man's advances but later changes her vote from no to yes. (p. 349)

We provide Baumeister's characterization, as others have construed the same chain of events differently. Indeed, rather than being a default option, such a process is evidence of sexual selection, that is, the process by which females carefully choose mating partners (Andersson, 1994; Darwin, 1871; Geary, 1999). Taken together, we disagree with Baumeister's (2000) view that the frequency and/or magnitude of gender differences is notable within the sexual attitude and behavior domains. Moreover, when clear gender differences do exist, as in the case of casual, uncommitted sexual behavior, the different pattern for men versus women may be more a product of important, yet different, evolutionary behavior patterns, rather than, in the case of women, erotic plasticity being "an inherent requirement of the female role in sex" (p. 349).

Controlling Female Sexuality?!

We raise a third comment regarding Baumeister's (2000) view of the utility of the plasticity viewpoint. He wrote, "From the point of view of society, the gender difference in erotic plasticity suggests that it will be more productive and effective to try to control female than male sexuality" (p. 369). Early in the article, Baumeister acknowledged that female erotic plasticity could be explained, in part, by the traditional power differentials between men and women. Namely, he wrote, "on average, men are physically stronger and more aggressive than women, and they also tend to hold greater sociopolitical and economic power. . . . Greater flexibility on the part of women would be one adaptive response" (p. 349).

Thus, it would appear that Baumeister (2000) recognized that if women's sexuality is more "changeable," it may be so because women have had less power and therefore have needed to be the ones to change. Yet at this point the reasoning seems circular: Baumeister offers a construct, erotic plasticity, that may have resulted from unequal power among the genders to justify further control of women. Although perhaps not the intended meaning, the suggestion is made provocative by the word control. We offer

concern that use of the word control will lead readers to draw inappropriate conclusions or choose inappropriate methods.¹ We firmly believe that Baumeister's review of the existing data should not be used as a justification to further control women's sexuality. Although women may be more receptive or responsive to modifying their sexuality according to interpersonal and social needs, this does not mean that societal manipulation of women's sexuality is an appropriate tactic. There are many alternative approaches, and we provide two examples.

First, as Baumeister (2000) discussed, erotic plasticity could lead to both adaptive behavior and behavior that is not in one's best interest. Future research might, for example, investigate the factors that lead some women to modify their sexuality in healthy ways and other women to be influenced toward self-harming sexual behavior. The data that Baumeister reviewed from the National Health and Social Life Survey (Laumann, Gagnon, Michael, & Michaels, 1994; Michael, Gagnon, Laumann, & Kolata, 1994) suggest that educational level may be one variable that shapes the way in which women's erotic plasticity can manifest itself. How do other variables (e.g., financial stability, self-esteem) help determine whether erotic malleability becomes an asset or a liability for a particular woman? Further understanding of this issue would allow society to apply the knowledge regarding women's erotic plasticity in a way that is helpful for women.

Second, assuming that erotic malleability can be an adaptive characteristic, further investigation is needed regarding the extent to which erotic malleability occurs in men. If men generally demonstrate less flexibility than women, it is possible that some men are more adept than other men at modifying their sexuality to fit the demands of the situation. That is, some men may be more able to adjust their sexual behaviors to the existing interpersonal and social context; indeed, recent data with couples in which the male partner manifests schematic (rather than aschematic) sexual traits suggest this is the case (Aarestad, 1999). If so, it would be important to understand what factors contribute to adaptive erotic plasticity in men. For example, are men with more refined interpersonal skills more sensitive to the needs of their partners and their relationships? Gaining greater understanding of this issue may appropriately shift some of the focus of erotic plasticity as a gender-specific phenomenon (thereby enhancing generalizability) and end reliance on women as the only possible agents of change.

In addition to our objection to embarking on efforts to control women's sexuality, we raise a final concern with a related comment. Baumeister (2000) asserted that because females appear to exhibit a milder sex drive than men (an interpretation of the data with which we do not agree; see the above discussion), "sex matters less to women than men and so women might be more willing to accept different circumstances and contingencies" (p. 369) and that "women will be better able than men to adapt to new social conditions and demands" (p. 369). Here we see a problematic leap in logic with equating sex drive with how much sex matters (and, more specifically, how much sex matters to a particular gender). In fact, a variety of data suggests that sex matters quite a lot to women. For example, in the discussion above and consistent with many eminent scientists (e.g., Darwin, Andersson, Buss), there has been the suggestion that sex matters enough to women that they restrict the number of partners with whom they have sex and are more selective than men about the sexual partners they choose. Again, the data in Table 1 suggest many more

behavioral similarities than differences between the genders. However, even if one gender would have, on average, a milder sex drive than the other, this does not mean that sex is less important to that gender. This leap in logic may result, in part, from trying to understand women's sexuality from paradigms that are better suited for understanding men's sexuality.

In conclusion, we applaud Baumeister's offering of theoretical conceptualizations to the arena of sexuality research. The field of sex research has been criticized for lacking overarching conceptual bases with which to evaluate and guide ongoing research (see Abramson, 1990), and this has also been true for the study of female sexuality. Indeed, sex researchers have often puzzled as to why female sexuality does not seem to "fit" with the conceptual paradigms designed to understand and explain male sexual functioning or why the assessment of female sexual behavior and responsiveness is a bit elusive and difficult to pin down with tried and true approaches to male sexual assessment. Although we wonder if some of the same issues confront Dr. Baumeister in his concept of erotic plasticity, we respect his offering of a conceptualization for understanding and future testing.

¹ The careful use of appropriate language is important in this case, lest the discipline of psychology be accused of advocating the "control" of women's sexuality. Although we are aware that scientific evidence sometimes leads to conclusions that are socially controversial or politically incorrect, psychologists must be as clear as possible when presenting their conclusions in an effort to avoid the misinterpretation of their research by those outside academic arenas. Psychologists must remain cognizant of the fact that their academic writings are often used to justify social policies and/or programs to which they have not been privy. For example, in his discussion of the controversy surrounding a recent publication on child sexual abuse, Ray Fowler, Chief Executive Officer of the American Psychological Association, addressed this issue. He wrote, "We [the APA] take policy positions on the basis of psychological research and advocate for them, so we can't say we are neutral by-standers. This firestorm has vividly shown the power of science in the public debate. . . . If our scientific publications . . . are likely to be misinterpreted by the public, we have to find ways to explain them or we will pay dearly for their confusion" (Fowler, 1999, p. 3).

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New Editors Appointed: *Emotion*

The Publications and Communications Board of the American Psychological Association announces the appointment of Richard J. Davidson, PhD (Department of Psychology, University of Wisconsin—Madison), and Klaus R. Scherer, PhD (Department of Psychology, University of Geneva), as co-editors for the new APA journal *Emotion* for the term 2001–2006.

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