

PANEL V: WOMEN, RATIONAL CHOICE, AND SEXUAL STRATEGIES

EVOLUTION AND HUMAN MATING

DAVID M. BUSS*

I have been studying human mating strategies for the last decade. This article discusses some of the highlights of my research that are consequential for the law. These findings have profound consequences for the law, but being entirely ignorant of the law, I have no idea what those consequences are. This article simply presents my findings and presents my theoretical perspective, which I believe is powerful enough to account for those findings. I then leave it to the lawyers and professors of law to decide what the normative legal implications of these findings are.

I. EMPIRICAL EXAMPLES OF STRATEGIC INTERFERENCE

This section begins with a 2 x 2 matrix of what I call strategic interference. Strategic interference occurs when the sexual strategy adopted by one sex conflicts with the sexual strategy of the other sex. It can be thought of as a form of cost imposition, a way in which men and women inflict costs on each other. The two columns of the matrix represent the party imposing the cost, either male or female, while the rows represent the party upon whom the costs are imposed, either male or female. In theory costs can be imposed by either a male or female perpetrator on either a male or female victim, but it turns out that the costs are not randomly distributed within this particular matrix, nor are the types of costs imposed the same in every quadrant.

For example, in the male-male quadrant, which represents a male perpetrator imposing costs on a male victim, we find costs imposed in the form of status derogation and homicide. Status derogation refers to the ways in which members of one sex downgrade, denigrate, slander, defile, and generally impugn the character of members of their own sex to make them less desirable to members of the opposite sex. In my empirical studies I have identified eighty-three methods for derogating members of the same sex, and I even have them scaled by effectiveness for each

* Professor of Psychology, The University of Michigan.

sex in context.¹ I found in my studies that men frequently engage in status derogation. Status derogation typically takes the form of comments denigrating another man in terms of his economic abilities, saying that he is poor, that he drives a lousy car, that he is not going anywhere, that he has no goals, that women should not be interested in him.²

Across a wide range of societies, the number of homicides occurring in the male-male quadrant is vastly greater than in the female-female quadrant.³ The contexts of these male-male homicides are fairly predictable. A typical situation involves two males getting into a status derogation conflict while drinking in a bar. These are what police call "trivial altercations," which sometimes escalate to the point where someone breaks a bottle, pulls out a knife, or gets his gun. Men also kill women, but not nearly as frequently. The contexts for these are also very predictable. There are primarily two such contexts: sexual infidelity by the woman (either suspected or observed) and defection from the relationship by the woman (either threatened or actual).⁴ In such situations, men often take violent action.

Women, of course, also kill men. This is the third most frequent perpetrator-victim combination. It typically occurs in defense against a man who is enraged by infidelity or defection, or after a prolonged history of abuse.⁵ Homicides committed by women against other women, on the other hand, account for just a tiny fraction of all homicides.⁶ Even the small number of reported female-female homicides overstates the frequency of this type of killing for our purposes, since a portion of those killings are infanticides.⁷

Men also inflict costs on women of a very different sort than homicide. One hardly needs to present empirical data to demonstrate that sexual aggression, sexual harassment and sexual coercion typically involve male perpetrators and female victims. There are, of course, exceptions. In prisons, for example, sexual

1. See David M. Buss & Lisa A. Dedden, *Derogation of Competitors*, 7 J. SOC. & PERS. RELATIONSHIPS 395, 401-14 (1990).

2. *Id.*

3. See MARTIN DALY & MARGO WILSON, *HOMICIDE* 146-49 (1988). These are non-war homicides. Of course, wars are also primarily waged by men against other men.

4. See Martin Daly et al., *Male Sexual Jealousy*, 3 ETHOLOGY & SOCIOBIOLOGY 11, 14-16 (1982).

5. Daly & Wilson, *supra* note 3, at 199.

6. *Id.* at 147-48 & Table 7.1.

7. *Id.* at 146-49.

coercion is frequently perpetrated by males against male victims.⁸ Generally, however, males are the perpetrators and females are the victims of sexual harassment and coercion.

Sexual jealousy is another way in which men inflict costs on women. The cross-cultural manifestations of male sexual jealousy are staggering. This heading includes practices that are not jealousy in a literal sense but are closely related to it, such as veiling, harems, various forms of genital mutilation (such as infibulation and clitoridectomy), cloistering, foot-binding, and chastity belts. Such manifestations of male concern over controlling female sexuality and reproduction are quite profound and pronounced worldwide.⁹

It is also possible for women to inflict costs on other women. This occurs primarily through derogation of competitors, usually on the basis of appearance and promiscuity. For example, women will laugh at another woman's hair, say her thighs are heavy, or say that she has no shape. The detail and nuance of the knowledge that women have about the subtle flaws in other women are staggering, and women point out these subtle flaws and magnify them.¹⁰ Alleging that another woman is promiscuous (in technical terms, that she carries out a short-term sexual strategy) is also a common form of status derogation among females.¹¹

The question of whether women ever inflict costs on men is complicated. In my studies of conflict between the sexes, when I asked men what women do that irritates, angers, annoys and upsets them, two common responses from men were the related, though distinct, practices of sexual exclusion and sexual withholding. Selective exclusion on the mating market is illustrated anecdotally by a female friend of mine who likes to go dancing in various bars, and is sometimes approached by what she refers to as "Larrys"—beer-drinking, stubble-faced, truck-driving guys—who ask her to dance. When she politely declines, they sometimes become abusive, and say things like: "What's the matter,

8. See generally James E. Robertson, *Surviving Incarceration: Constitutional Protection from Inmate Violence*, 35 *DRAKE L. REV.* 101, 105 (1985) (discussing rates of rape and other violent crime in prison); Jonathan A. Williams, *Structure, Content and the Exigencies of War: American Prison Law After Twenty-Five Years 1962-1987*, 37 *AM. U. L. REV.* 41, 58-60 (1987) (discussing male rape in prison).

9. See DAVID M. BUSS, *THE EVOLUTION OF DESIRE: STRATEGIES OF HUMAN MATING* 138-40 (1994).

10. *Id.* at 112-113.

11. See generally JOHN BARTH, *THE SOT-WEED FACTOR* 441-47 (2nd ed. 1967). This work illustrates the enormous range of insults hurled by women towards other women.

bitch, I'm not good enough for you?" At this point she says nothing, but is thinking, "That is precisely it, you are not good enough for me."

Sexual withholding, the second practice that irritates men, is something that men complain about even within marriage. Long before my studies, this was summarized by the theoretician Jim Morrison of *The Doors*, who noted that "women seem wicked when you're unwanted."¹² My point is that while women obviously have and should have control over whom they want to date, marry, and have sex with, psychologically, men experience those forms of exclusion as costs.

II. THE THEORETICAL PERSPECTIVE OF EVOLUTIONARY PSYCHOLOGY

When presented with some of my findings about the costs men inflict on women, a female graduate student said, "David, I have a hypothesis that can account for all of your data. Men are slime." I replied, "Well, that's probably right, but we want to know precisely the ways in which men are slime, and we want a powerful theory to account for those ways."

This is the aim of my research: a theory that is powerful enough to account for not just the individual manifestations of the various kinds of cost imposition, but also for their non-random distribution within the 2 x 2 perpetrator-victim matrix. This article presents some of the key highlights of the theoretical perspective that explains these phenomena. These theories stem from an evolutionary psychological perspective, which is quite different in several ways from the sociobiological perspective discussed by Richard Epstein.¹³ Two of the most significant aspects of the evolutionary psychological perspective are the modularity and functionality components.

When one considers the human body, what one sees is not a one-domain general physiological mechanism that pumps the blood, prevents choking, filters impurities, performs oxygen uptake, and so forth. One sees many specific modular mechanisms, each designed by evolutionary selection to perform a particular function: the larynx prevents choking, the liver filters impurities, and so forth. Evolutionary psychologists argue that the mind is

12. See *THE DOORS*, *People are Strange*, on *STRANGE DAYS* (Elektra Entertainment 1967).

13. See Richard A. Epstein, *Two Challenges for Feminist Thought*, 18 *HARV. J.L. & PUB. POL'Y* 331 (1995).

similarly composed; that we have a large number of psychological mechanisms, each designed to perform a particular function.¹⁴ One of the sets of mechanisms relevant to this article is that of the emotions, such as anger and jealousy, which track the psychological costs that we experience.

The second component is functionality, an idea that has been almost entirely missing for the last century or so in the social sciences. Just as our bodily mechanisms have particular functions, psychological mechanisms have specific functions—they are designed to solve particular adaptive problems.

One possible misconception about evolutionary psychology warrants clarification. When most people think of evolution they think of “nature red in tooth and claw,”¹⁵ but that is really not what most human evolution is about. Natural selection is really not sufficient to account for the tripling in volume of the human brain over the last two million years, from roughly 500 cubic centimeters to 1400 cubic centimeters.¹⁶ But there is another causal process that is capable of accounting for that: what Darwin called sexual selection.¹⁷ Sexual selection deals with the evolution of characteristics that give organisms reproductive advantage, as opposed to survival advantage. It has two basic components.

The first component of sexual selection is intra-sexual competition, that is, competition within a single sex. The stereotypical image is that of two stags locking horns in combat, with the victor getting sexual access to the female, and the loser ambling off with a broken antler and lowered self-esteem. The idea is that whatever characteristics lead to success in these same-sex competitions can evolve simply by virtue of the reproductive advantage that accrues to the victor.

The second component of sexual selection is inter-sexual selection, that is, preferential mate choice between the sexes. If members of one sex have some consensus about what characteristics are desired in members of the opposite sex, then those desired characteristics will evolve or increase in frequency over time, simply by virtue of the reproductive advantage that accrues to those

14. David M. Buss, *Evolutionary Psychology: A New Paradigm for Psychological Science*, 6 *PSYCHOLOGICAL INQUIRY* 1-30 (1995).

15. ALFRED TENNYSON, *In Memoriam A.H.H.*, in *A COLLECTION OF POEMS BY ALFRED TENNYSON* 318, 357 (Christopher Ricks ed., 1972).

16. DONALD SYMONS, *EVOLUTION OF HUMAN SEXUALITY* (1979).

17. See CHARLES DARWIN, *THE DESCENT OF MAN AND SELECTION IN RELATION TO SEX* 366-68 (Robert M. Hutchins ed., *Encyclopedia Britannica* 1952) (1871).

who possess the desired characteristics. For example, if it were the case that females desired red-headedness in males, then over time you'd see an increase in frequency of red-headedness, and the streets would be ablaze with redheads. Clearly, this has not happened.

One last concept of the evolutionary psychological perspective is that there is a fundamental causal linkage between the two components of sexual selection: namely, mate preferences drive intra-sexual competition over time.¹⁸ Members of one sex compete with each other to fulfill or embody the desires of the opposite sex. Those who fail to embody the desires are selectively excluded in mating, and are not our ancestors.

This illustrates the mechanism by which strategic interference causes negative emotional reactions. Conflict, both between men and women and between members of the same sex, results from strategic interference. Negative emotions are triggered by attempted interference with a survival strategy. If a snake is trying to bite someone, it is interfering with that person's survival strategy. Thus, we have a specific fear of snakes (as well as of heights and darkness and strangers and so forth). Similarly, if one tries to carry out a mating strategy, or a sexual strategy, and someone interferes with that, then that is upsetting, making the party seeking to mate angry or jealous.

Negative emotions signal strategic interference by alerting the individual to that interference, drawing attention to the interfering events, singling those events out for storage and memorial retrieval, and motivating action to prevent that interference. Because men and women pursue somewhat different strategies in mating, the events that cause strategic interference will differ, and hence the things that men and women will get upset, angry, and jealous about will differ as well.

Returning to the data, we turn to a psychological study of jealousy that I carried out.¹⁹ I put my subjects in an agonizing dilemma. I instructed them to imagine that their romantic partner was interested in someone else. I asked them what would upset them more: their romantic partner having sexual intercourse with another person, or their romantic partner becoming emotionally involved with that other person.

18. Buss, *supra* note 9, at 9.

19. David M. Buss et al., *Sex Differences in Jealousy: Evolution, Physiology, and Psychology*, 3 *PSYCHOL. SCI.* 251, 251-255 (1992).

In our studies we find huge sex differences. My social science colleagues hate this, because they've been studying jealousy for decades and have never found a sex difference. The reason is that because they always ask the question in a domain-general, or global, or non-modular way. They ask, "Are you a jealous person?" The responses show no sex differences. They next ask, "How frequently do you get jealous?" Again, the responses show no sex differences. But asking subjects what makes them jealous, if they're forced to choose, produces a huge sex difference. The majority of men get more upset by the sexual infidelity. The majority of women, roughly eighty-five percent, get more upset by the emotional infidelity. They say, "Why are you even asking me this question? There's no issue here. Obviously, emotional infidelity is more upsetting." It does not matter how one words the question.

To control for the limitations of self-reporting, and to make sure the responses were not simply the product of brainwashing by the patriarchy, we brought a different group of subjects into the physiological lab and measured heart rate, electro-dermal activity, and electromyographic activity while giving the same instructions.²⁰ We placed an electrode on the corrugator muscle of the forehead, which contracts when a person frowns. In this way one can measure the intensity of frowning, thereby measuring negative effect or physiological arousal.

When we measured the degree of physical response to these two scenarios, we found huge sex differences. In response to sexual infidelity, men's heart rates go up about five beats a minute (the equivalent to drinking three cups of coffee at one time), they start sweating, their electro-dermal activity increases dramatically, and their frowning is profound. Our experimenters report that they could practically see the men vibrating in their chairs. Women, on the other hand, exhibited a very different response. They showed little difference in response to the two scenarios; where there was a difference, the women experienced greater physiological distress when confronted with emotional infidelity.

Jealousy is a negative emotion that signals one type of strategic interference. What does it have to do with evolution? This question is related to a fundamental difference between the sexes in reproductive biology; because fertilization occurs internally

20. Buss et al., *supra* note 19.

within women and not within men, women are 100% certain that they are the mothers of their children, while men are always less than 100% certain. Some cultures have a phrase to describe this: "Momma's baby. Poppa's maybe." The hypothesis of my research is that the particular set of events that trigger jealousy is cued to those sources of reproductive strategic interference that are specific to each sex.

Many of the costs that men inflict on women are due to the male desire for sexual variety. One empirical example of that desire is as follows: our research finds large sex differences in response to the question "How many sexual partners would you like to have over the next month, or next year, or your lifetime?" Women reported that in the next month they would like .8 of a sex partner, gradually escalating to a full sex partner, and then finally to a few over the course of their lifetime. Men said that two sex partners would be about right in the next month, eight in the next couple of years, and eighteen sex partners over their lifetime.²¹ Three of the men said one thousand, and I thought, "this is ridiculous", until I later heard Magic Johnson and Wilt Chamberlain had revealed their sexual exploits.²²

In another empirical example, we asked, "If you met someone of the opposite sex whom you found attractive, and you'd known them for a particular length of time, what is the probability that you would have sex with this person?" If they had known the person for five years, men and women agree that there is a pretty good probability that they would. Women bottom out at about one week, generally answering "no" to sex for any length of acquaintance less than that. Many men are still quite positive about the idea of having sex after only one week of acquaintance, and never really bottom out; a significant number of men would agree to have sex with a woman they'd known for a span of time measured in nanoseconds.²³

These results are not unique to my laboratory. A study was done in Florida, where an attractive man and an attractive woman approached members of the opposite sex on a college campus and said, "Hi, I've been noticing you around town lately, I

21. David M. Buss & David P. Schmitt, *Sexual Strategies Theory: An Evolutionary Perspective on Human Mating*, 100 *PSYCHOL. REV.* 204, 210-11 (1993).

22. See WILT CHAMBERLAIN, *A VIEW FROM ABOVE* 250-68 (1991) (discussing Chamberlain's sexual relations with a claimed 20,000 women); EARVIN "MAGIC" JOHNSON, *MY LIFE* 224-36 (1992) (describing Johnson's on-the-road sexual lifestyle).

23. Buss & Schmitt, *supra* note 23.

find you very attractive. Would you"—and they asked them one of three questions—"would you go back to my apartment with me tonight," "would you go on a date with me tonight," or "would you have sex with me tonight," and simply recorded the number of individuals who agreed to these requests. Different individuals were asked different questions in a randomized fashion. Of the women, fifty-six percent agreed to go out on a date with the man who approached them, six percent agreed to go back to his apartment that night, and none agreed to have sex with him. Of the men approached by the attractive woman, fifty percent agreed to go out on a date with her, sixty-nine percent agreed to go back to her apartment, and seventy-five percent agreed to have sex with her.²⁴ For those who think that men and women do not differ, these findings are illuminating.

Returning again to the 2 x 2 cost imposition matrix, I want to discuss how the forms of cost imposition are related to one another. Perhaps the reason that women are derogating other women on physical appearance is not because women are mean; perhaps it has something to do with men. Maybe women derogate other women's appearances because men put such a great premium on physical appearance. In my study of what characteristics are desired in a potential mate in thirty-seven cultures, men of all thirty-seven cultures place a greater premium on physical appearance than on other factors.²⁵ Without elaborating, the logic of this has to do with cues to fertility.

The premium placed on relative youth is also a universal sex difference. Men universally, in every single culture, desire women who are relatively younger than they are. The strength of this preference varies; for example, in polygamous cultures, such as Zambia, where men are legally permitted to take multiple wives, this is a very large preference, and in other cultures it is a smaller preference, but it is universal.²⁶ Women also universally prefer older men.

Perhaps the reason that men derogate other men in status competition and in all the puffery that men engage in, is not because they are intrinsically evil, slimy people (though perhaps they are), but because of the desires of women. Perhaps it is be-

24. Russell D. Clark, III & Elaine Hatfield, *Gender Differences in Receptivity to Sexual Offers*, *J. PSYCHOL. & HUM. SEXUALITY* 39, 50 (1989).

25. David M. Buss, *Sex Differences in Human Mate Preferences: Evolutionary Hypotheses Tested in 37 Cultures*, 12 *BEHAVIORAL & BRAIN SCI.* 1, 11 (1989).

26. *Id.*

cause women place a premium on resources and status and ambition. Empirically we find that this is, in fact, the case. A strong female preference for a good financial prospect occurs in all thirty-seven cultures.²⁷

The final hypothesis that merits mention is radical, but the evidence for it is very compelling. This hypothesis takes into account what is sometimes called patriarchy. In science the term "patriarchy" is sometimes called a pancreston, a word that means something different to everybody and purports to explain everything, but explains nothing. Patriarchy is such a term, because it obscures the causal processes that are going on; this article will nonetheless use the term. The evidence of my research suggests that women are at least partially causally responsible for creating patriarchy through their mating preferences.²⁸ If it is the case that women worldwide desire men with resources, then over evolutionary time the process is going to select men who have resource-acquiring capabilities, and who take the risks to get the resources, because those men who lack the resources and fail to take those risks will be excluded from reproduction. This creates different strategies in the sexes in terms of risk-taking and motivation and status driving.

This is not to blame women for the existence of patriarchy. It is simply to suggest that women have different desires, and that these desires in part drive men's motivations. There is an inextricable co-evolutionary process by which men's desires and women's desires are linked in a causal process over time. Women are a part of the causal chain, though obviously not the only part.

In the social sciences some say that men and women are identical except by virtue of their genitals or reproductive apparatus. This is simply not true. Women and men are identical in many respects, but they differ in those domains where they face different adaptive problems over evolutionary time—the domains of aggression and the domains of sexuality. Although the findings in this article are basically scientific, trying to understand these phenomena, my hope is that these findings will help us to reduce the conflict between the sexes that is so prevalent in society today.

27. *Id.*

28. Buss, *supra* note 9, at 211-14.