

One would expect substantial sex differences in both kinds of combat fear, with women experiencing less motivation to conform to the manly ideal while experiencing greater concern for physical safety. As Campbell's analysis shows, women are likely to act as though they have less to gain and more to lose from exposing themselves to combat risks. If the effect size of this difference is large and persistent even after training, and if there is no practical way to judge in advance whether an individual will be willing to take necessary risks, the sex differences in risk taking that Campbell identifies may be relevant to the question of whether women should serve in combat.<sup>1</sup>

Although Campbell's analysis of female aversion to physical risk is persuasive, her emphasis on such risks (sect. 1.2) might erroneously be taken to imply women are not relatively averse to non-physical risks. The dichotomy she draws between concern with "direct risk of injury," for which a sex difference exists, and "openness to experience," for which no difference is found, may not be the operative distinction; instead, the distinction may be between "risky situations" and "novel but not risky situations." Gambling, for example, which is by definition economically risky (but generally physically risky only when the gambler defaults), is a disproportionately male activity, especially when the stakes are high (Wilson & Daly 1985).

Differences in attitude toward nonphysical risk may partially explain sex differences in achievement orientation (Arch 1993). Achievement situations often present uncertainty and opportunities for loss of resources. Just as a mother's loss of life imperils her offspring – inclining women not to risk their lives as readily as men – her loss of resources may likewise endanger her young, inclining women to be more reluctant to risk their resources as well.

Sex differences in nonphysical risk-taking have substantial workplace implications (Browne 1998; 1995). Studies of successful executives routinely find that risk-taking is an important trait (Morrison et al. 1992; MacCrimmon & Wehrung 1990). The risks that successful executives take are typically not physical ones, but rather "career risks" that, if they pay off, will lead to career advancement, but if they do, not may lead to career setbacks.

Sex differences in willingness to take both physical and non-physical risks have important policy implications. Campbell's insightful target article is a substantial contribution toward our understanding of the origin of those differences.

#### NOTE

1. This is not to suggest that only sex differences in risk taking are relevant to that question, however, as sex differences in aggressiveness, physical strength, and even cognitive traits may be germane, as is the effect of the introduction of women on unit cohesion (see Henderson 1985).

## The evolutionary psychology of patriarchy: Women are not passive pawns in men's game

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**Abstract:** We applaud Campbell's cogent arguments for the evolution of female survival mechanisms but take issue with several key conceptual claims: the treatment of patriarchy; the implicit assumption that women are passive pawns in a male game of media exploitation; and the neglect of the possibility that media images exploit existing evolved psychological mechanisms rather than create them.

We commend Campbell on an insightful target article, which synthesizes much that is known about the evolutionary psychology of aggression, social status, and the nature of intrasexual competition. She offers a plausible theory of the evolution of female survival mechanisms such as specific fears and avoidance of violent and physically risky confrontations. This commentary contests several key issues, however.

The first issue pertains to the origins and evolution of "patriarchy," in which Campbell seems to assume that males have somehow usurped control over females. There is evidence, as Campbell suggests, that men in all cultures tend to control more economic resources and occupy more positions of formal power. But the implicit assumption in Campbell's analysis is that women are passive pawns in men's game. There are two problems with this assumption. First, it contradicts the general thrust of her theory, which emphasizes often overlooked aspects of women's evolved aggressive and competitive strategies. Second, it ignores women's active role in the creation of male control over resources, position, and power.

Buss (1996) has proposed a coevolutionary theory to explain the origins of "patriarchy," suggesting that women's preference for men with resources and men's competitive strategies have coevolved, the outcome being a tendency for men worldwide to control more resources, power, and position than women. There is strong evidence from a study of 37 cultures involving 10,047 participants that women have a greater desire for long-term mates who not only possess economic resources, but also possess characteristics that are likely to lead to resources over time, such as ambition, industriousness, and social status (Buss 1989). These preferences, operating repeatedly over human evolutionary history, have led women to favor as mates men who possess status and resources and to exclude from mating men lacking status and resources. Men in human evolutionary history who failed to acquire resources and status were more likely to have failed to attract mates.

Women's preferences thus established an important set of ground rules for men's intrasexual competition. Modern men have inherited from their ancestors psychological mechanisms that not only give priority to the attainment of resources and status, but also lead men to take risks to attain them. Men who failed to give the goals of attaining status and resources a high motivational priority were more likely to fail to attract mates. Women's preferences and men's intrasexual competitive strategies thus coevolved. The intertwining of these coevolved mechanisms in men and women created the conditions for men to dominate in the domains of resources, position, and power, according to this theory (Buss 1996).

This evolutionary origin of "patriarchy" is not merely an incidental historical footnote; it has profound bearing on the present. Women today continue to want men with resources, and continue to reject men lacking in status and resources (Buss 1994). Women who earn more than their husbands, for example, divorce at twice the rate of women whose husbands earn more than they do. The forces that originally caused the resource, status, and power inequity between the sexes – women's preferences and men's coevolved competitive strategies – contribute to the maintenance of "patriarchy" today. Women are not passive pawns of a male imposed system.

Campbell's analysis also seems to assume that women are passive victims of men's control over media messages, and we find this assumption problematic (see Kenrick et al. 1996). Specifically, her analysis assumes that media messages are passively adopted by women and men and hence affect their psychology (e.g., in the valorization of men's aggression and the pathologizing of women's aggression). This ignores a plausible suggestion that media messages are *products* of women's and men's evolved psychology that merely *exploit* the existing mechanisms of media consumers rather than create them. With respect to aggression, for example, men are likely to have evolved a coalitional psychology that places high value on physical prowess in other men; and women are likely to have evolved a preference for men with the physical and aggressive prowess to offer them and their children protection (Buss 1994). The media messages may not "cause" the valorization of men's physical prowess, but may be a product of the human evolved value of it and resonate with media consumers precisely because of that evolved value.

Campbell's examination also fails to detail the context-specific nature of whether men's and women's aggression is considered

valorous or deviant. The context in which aggression takes place largely determines how it is construed. For example, a man who walks into an elementary school with a gun and starts shooting children is not likely to be valorized by anyone. And a woman who shoots a burglar because he is about to harm her children is likely to be viewed as courageous, not deviant.

Campbell argues that the patriarchally controlled media messages have caused the intriguing sex difference she discovers – that men are more likely to justify their aggression as due to instrumental goals, whereas women are more likely to offer excuses in forms such as lost self-control. Campbell's discovery is important, but her explanation ignores the possibility that these sex differences merely reflect sex differences in evolved competitive strategies. There is no reason to believe that humans are passive receptacles of cultural messages (Tooby & Cosmides 1992).

As a final point, we would like to stress a fact that Campbell clearly acknowledges early in the target article, but subsequently downplays when it comes to her speculations about patriarchy and media control – that men are in competition primarily with other men, not with women. Although the target article clearly acknowledges that men compete primarily with other men for access to women through hierarchy negotiation and aggressive confrontation, this key point is subsequently ignored in Campbell's analysis of patriarchy. Men are not united in their interests. Yes, men do want to control attractive and reproductively valuable women. Men strive for status and resources because these qualities are helpful in successfully besting other men in their competition to attract women. Men deprive other men of their resources, exclude other men from positions of power and status, and derogate other men in order to make them less desirable to women. Men form coalitions, but as Campbell acknowledges, these coalitions are designed primarily to out-compete other men. Neither men nor women are united in their interests with members of their own sex. Neither women nor men are passive pawns of culture, patriarchy, or the strategies of the opposite sex. Discussions of "patriarchy" that neglect these key points are misguided.

## Warrior values and social identity

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**Abstract:** A single evolved psychological mechanism, social identity, may help explain the development of salient sex differences in aggression. Bearing children automatically provides a basis for positive social identity for females. Masculine identity is more problematic, especially where the range of possible cultural roles is small. Ethnohistorical data provides insight into the overlap between masculine values and warrior values.

She who faces Death by torture for each life  
beneath her breast  
May not deal in doubt or pity – must not swerve  
for fact or jest.  
These be purely male diversions – not in these her  
honour dwells.  
She, the Other Law we live by, is that Law and  
nothing else.

Rudyard Kipling,  
*The Female of the Species*, 1911

I am puzzled as to why Campbell uses crime statistics to motivate her inquiry. What counts as a crime depends on ever-changing cultural values, and as a measure of aggressiveness, criminality may well be an evolutionary aberration. Living in a modern "faceless society" has different social constraints and requirements compared to preagricultural, face-to-face group living. This commentary looks to premodern cultures as a source of hypotheses about warrior values.

Campbell calls the valorization of warrior values, which overlap with masculine values, the critical feature for understanding differences in male and female aggression. She argues that patriarchal culture enhances evolved sex differences by stigmatizing female aggression so as to continue men's control over women. However, this explanation prematurely forecloses examination of women's participation in the production and reproduction of patriarchal culture. In effect, Campbell reinforces rather than exposes patriarchy because her argument focuses on the agency and activity of males while females are backgrounded and made invisible – a result I doubt Campbell intends.

The remedy is to shift the focus of analysis from male agency to female agency, a step Campbell begins to make in her analysis of females "staying alive." Although men fight, war engages a society. How do women participate and to what advantage? After all, every man who dies is some woman's reproductive investment or potential economic resource. Why do most women support or valorize war? Why not go on strike and end war? A brief foray into the ethnohistorical literature turns up three interesting observations.

First, women *do* fight. When war is at the threshold of home, sex ceases to be a criterion for who may or may not bear arms. Women have fought without appropriate training or weaponry. There are also occasions when women have engaged in loosely organized violence – riots, rebellions, and "women's wars" (Ardener 1973). As Campbell might predict, these involve a common defense of resources necessary for women's perceived role in providing food. Examples include the Igbo women's war, the babski bunty rebellions, the *femmes san-culottes* of the French revolution, and American women's protests in the 1950s over strontium 90 in milk. In 1958, 7,000 African Kom women responded to an *anlu* (women's war) call to protest colonial policies reducing women's traditional control over farming. A number of women were killed or injured when authorities shot into the crowd. However, it will be important in future research to determine the relationship between defense of resources and defense of female social identity. *Anlu* was a traditional response to sexual insults (such as unflattering remarks about her genitals) that devalued a woman's female identity. Recent court records show that monetary awards in compensation for such insults were considerably higher than awards for divorce or adultery.

Second, on rare occasions, women became warriors. It appears they were required to reject functionally female and socially feminine identity by vowing to remain virginal and adopting the attributes of masculine identity. Joan of Arc is probably the most familiar example. Among certain Germanic groups, a woman could reject a potential husband chosen by her family by swearing virginity and adopting the clothing and life of a warrior alongside male warriors. The Dahomeans, who had a state-level social organization, had a corps of women warriors – all sworn to remain virgins (not all of them did) until receiving the king's permission to marry. Vowing virginity may be anachronistic in modern states, although the expectation that women at war adopt masculine identity may still express itself more subtly. Soviet women fighter bombers began their missions at the end of World War II under the leadership of a woman who tolerated small, hidden infractions of regulations related to feminine identity (e.g., long hair hidden under a cap, bows on underclothes). When she was killed on a mission, her replacement, a male, vigorously prohibited all signs of femininity (Myles 1981). Males in premodern groups often claim that they "are no longer men" because European intervention has ended traditional warfare (Sanday 1981; Turney-High 1971). The importance of warfare as an exclusively masculine activity is one rationale for prohibiting women from participating in combat in the American military (Golightly 1987).

Third, in premodern societies, blood binds childbirth and warfare (Sanday 1981; Turney-High 1971). Among the Spartans, both sexes were perceived to endure pain and risk death for the collective purposes of the state. Men who died in battle and women who died in childbirth were the only people whose names were inscribed in stone at their deaths. The Ashanti also had rituals for women who died in childbirth that mirrored those of men who