



The SAGE Encyclopedia of War: Social Science Perspectives

Competition

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War is a male activity. Organized fighting and killing by groups of women against other groups of women has simply not existed at any point in human history, and given the wide range of diversity to be found across human cultures, the consistency with which males are the organizers and perpetrators of group conflict has led many scholars to conclude that the male propensity for group violence is rooted in more than the learning of culturally prescribed gender roles. Evolutionary psychologists have studied war and conflict with the assumption that a predisposition for warfare has evolved in males because it has historically (and prehistorically) enhanced their reproductive success. Hence, the origins of warfare can ultimately be found in the competition between males for status and access to mates.

Male Competition and Violence

The adaptive problems faced by men and women throughout history were quite different, and aggression proved to be a more adaptive response for males than for females. Sexual competition for mates has always been more intense among males than among females, especially in the polygamous societies that appear to have been typical in the prehistoric human world. The stakes were very high for men in this environment, as the winners of this competition would come away with the greatest number of women (and the most desirable women). The losers ran the risk of genetic annihilation by their failure to successfully win the status and resources necessary to attract mates. Historically, powerful men have always enjoyed greater sexual access to women than men lower in the pecking order, and violence, including war, can often be traced to this grim struggle for status and mates among men. By all indications, a man's social standing and status in a group was often dependent upon how believable his threats of physical violence were, and men who could maintain a reputation for being tough customers were better able to hang on to their status.

War Heroism

Violence committed against the right people at the right time has commonly been a ticket to social success. For example, among the Yanomamo of South America, men who had killed other men, especially during wars and skirmishes with other villages, acquired significantly more wives than men who had not yet killed anyone. Because having killed someone in war was often good for one's reputation, many societies developed ceremonies for recognizing such accomplishments. In modern societies, these take the form of prestigious awards such as the Congressional Medal of Honor in the United States, and many countries have national holidays to celebrate the heroism of those who have fought and/or died in wars.

War heroes are held in such high esteem because they seem to act in a noble and virtuous manner, setting aside any thoughts of their own well-being for the good of their group, tribe, or nation. However, evolutionary psychologists believe that even apparently selfless impulses such as heroism must provide some adaptive advantage for individuals. *Costly signaling theory* suggests that conspicuous war heroism may be a way for individuals to advertise desirable personal qualities that increase the likelihood that they will be chosen as a mate or an ally and be positioned for access to future resources. Many studies demonstrate that people who sacrifice for the group by engaging in costly altruistic activities do, in fact, achieve elevated social status, respect, and recognition as a result of their public selflessness. For a costly signal to be effective, it must honestly convey valuable information about the individual sending the signal, and it must be impossible to fake. No researchers suggest that heroes consciously sit down and calculate all of the benefits that will come their way if they survive

the heroic action. Rather, it is thought that such impulses have been selected for because heroic behavior has provided competitive advantages for men throughout human history.

Evolution of a Male Predilection for War

Dutch psychologist Mark van Vugt has proposed the *male warrior hypothesis* as a way of explaining the results of research demonstrating that men show stronger group identification and more cooperation with in-group members than do women during times of threat from outside groups. His theory suggests that men have evolved a predisposition to engage in collective cooperative aggression against outgroups, a tendency that has likely been strongly reinforced through culture traditions and socialization.

A team of European psychologists explored the proposition that war provides an arena for men to compete and impress both their male rivals and females who might be potential mates. In one study, they found that 464 American men who had won the Medal of Honor during World War II eventually had more children than other U.S. service men who had not been so heroically distinguished. This is consistent with the idea that heroism gets rewarded with greater reproductive success. In a second study, 92 women rated the sexual attractiveness of men who had behaved heroically in war as being higher than that of soldiers who had served but not been identified as heroes. Tellingly, women did not show this increased attraction toward men who had behaved heroically in sports or business situations. A third study revealed that behaving heroically in war does not increase the attractiveness of female war heroes to men. In summary, heroism in time of war is sexier than any other kind of heroism, but only for men.

Young men are particularly concerned with status and heroic opportunities for sound evolutionary reasons. In early human societies, competitive success or failure in early adulthood determined a man's standing in a social group for the rest of his life. It wasn't possible to simply hit the reset button and join another group, so what happened during the teen years mattered a lot. For this reason, high-risk competition between young males provided an opportunity for showing off the abilities needed to acquire resources, exhibit strength, and meet any challenges to one's status. Consequently, heroic or even recklessly daredevil behavior was rewarded with status and respect—assuming, of course, that the young man survived the ordeal. Displaying heroism in time of war was a primary way of accomplishing these goals. Hence, it should not be surprising that historical data confirm that the concentration of young men in a population is one of the best predictors of when a society is most likely to go to war.

The idea that men compete with each other to impress women has clearly been around for quite some time. For example, the Sioux warrior Rain-in-the-Face once commented on the fact that the presence of women in a war party caused his warriors to vie with one another more intensely in displaying their valor.

Today, the popularity of sports undoubtedly developed as a constructive alternative for dealing with the proclivities of young males that evolved in a very different time. In a legally sanctioned gladiatorial arena, young men compete to exhibit the same skills—throwing, clubbing, running, wrestling, tackling, hand-eye coordination—that would have made them successful fighters and hunters in the ancestral environment.

War is costly and risky, and for male psychology to have evolved a predisposition for going to war, several essential conditions must be met. John Tooby and Leda Cosmides have identified

four conditions that would be particularly important. First of all, successful soldiers must have greater sexual access to women than noncombatants. Secondly, coalitions of fighters must believe that they will be victorious. Thirdly, the rewards that each warrior receives must be proportionate to the risks he has taken and the importance of his contributions. In other words, cheaters should never prosper. And finally, men going to war must not know for sure who will live and who will die; there must be a protective “veil of ignorance.”

Testosterone and Male Competition

The *challenge hypothesis* provides a framework for predicting the circumstances under which male showing-off may take the form of violence. According to this hypothesis, testosterone levels rise in response to threats to a male's status or the imminent threat of male-male competition, facilitating whatever competitive behaviors are necessary to meet the challenge. Although the theory was originally designed to explain aggressive behavior in animals, studies indicate that it is applicable to human male behavior as well.

There is little question that a predisposition to behave in a physically violent way is linked to biology, and a link between aggressive behavior and hormonal activity has been well established. Injecting testosterone into a variety of animals, ranging from chickens to monkeys, increases the aggressiveness and social dominance of the injected animals, regardless of whether they are males or females, and socially high-ranking male chimpanzees exhibit the highest levels of aggression and the highest levels of testosterone. Furthermore, all adult male chimpanzees show their highest levels of testosterone when in the presence of females who are ovulating, but this is associated only with higher levels of aggression and not significant increases in actual sexual activity.

The testosterone-aggression relationship is not as straightforward for humans. Many laboratory and field studies reveal a strong positive relationship between testosterone and levels of restlessness and a tendency toward violence, but other studies have failed to replicate this effect. Researchers who have studied inconsistencies in the research literature have concluded that a positive correlation between levels of testosterone and levels of aggression occurs primarily in situations in which males are competing with other males or when the social status of a male is challenged in some way. Studies show that testosterone levels in males rise and fall according to whether the individual wins or loses in competition in sports as diverse as tennis, wrestling, and chess. The effect can also occur among spectators who watch their teams win and lose. On the flip side of the coin, there is often a pronounced drop in the testosterone levels of men who lose in face-to-face competition, especially if the losing men were socially anxious to begin with, and animal studies have confirmed that a decrement of testosterone in male rodents is associated with low dominance behaviors such as “freezing” and inhibited exploration. A meta-analysis of the studies on testosterone levels and sports competition reveals that, in general, an athlete's testosterone level tends to elevate in anticipation of competition, to escalate even further during competition, and that these increases are significantly more pronounced for winners than for losers. Along these same lines, it has been demonstrated that males respond to insults with elevated levels of testosterone.

See also [Altruism](#); [Evolutionary Psychology](#); [Human Nature](#); [Hypermasculinity](#); [Sociobiology](#); [Sports](#); [Testosterone](#)

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