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Female Aggression and Evolutionary Theory

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Introduction

Evolutionists have long argued that more aggressive and more physically fit males that could fight off competition and control sexual access to their female mate(s) were more successful at passing on their genes. As a result male aggression towards other males and even towards females has been argued as being an evolved tactic to gain access to mates and to ensure paternity of offspring. Males are thought to engage primarily in intrasexual competition for mates while females engage in epigamic display, demonstrating characteristics thought to be desirable to the opposite sex, to attract mates (Campbell, 1995). This kind of theorizing portrays males' evolution as active whereas females' evolution is passive. Males evolve through competition

whereas females evolve through mate selection.

Theories of intra-male competition and mate selection by females consistently portray females as non-competitive and ignore the possibility that females too might compete for mates. If intra-female competition is acknowledged it is frequently portrayed as less threatening with less chance of physical harm and is often put aside in order to focus on risky competition between males (Campbell, 1995). Such an androcentric view of evolution and aggression in mate choice ignores the effects of evolution on approximately half (give or take) of the world's population. It portrays females as docile and passive in a genetic race to acquire physically fit and high quality mates to produce highly successful offspring that will be eventually carry on one's blood line. Females have just as much interest in quality mates as men and females have also been subject to evolutionary pressures where competition for mates was and is present.

Evolutionary Theory of Aggression

Present day human beings, like any other species of plant or animal life on the planet, have been subject to evolution and natural selection. Those humans with traits or characteristics that allowed them greater success surviving to adulthood, procreating and producing longer surviving and more successful young had a much greater chance of passing on their genes. Humans evolved in an effectively polygynous setting, differential parental investment of males and females means that any one male can produce more offspring than any one female. Males invest sperm, which is relatively abundant and cheap to make, and some material resources, whereas women invest much more in gamete production, gestation lactation and infant care. Because of this difference, women invest much more in the production and rearing of offspring and as a result males compete for females (Campbell, Muncer & Odber 1997). A male's capacity to fight off other male competitors allows them more access to fertile females and as a result they have more chances to reproduce. Therefore, aggression towards other males would be beneficial and aggressive males would produce more offspring thereby passing on aggressive characteristics to their male offspring.

Daly and Wilson (1988) note that the largest increase in male aggression occurs between the ages of 15 and 18, the prime reproductive years for males. Males have a higher fitness variance than females, and males can either produce many offspring or none at all whereas females are less likely to have no offspring and also less likely to have as many as males (Daly & Wilson 1988). Because males have a higher fitness variance they are more competitive for access to mates because they have more to lose. A male who does not reproduce does not pass on his genes; a male who fights for access to females has more chance of passing on his genes.

It is argued that because females have a lower fitness variance and it is

more likely that a female will produce at least one offspring that they have less to gain from physical competition among each other and as a result do not engage in competition for mates (Campbell, 1995). However Anne Campbell has made several arguments not only for the existence of female competition but for an evolutionary theory of female competition as well (Campbell 1995; Campbell, Muncer & Odber, 1997; Campbell, Muncer & Bibel, 2001). Campbell argues that females compete with each other for access to high quality male mates using both physical and indirect aggression. Indirect aggression is characterized by ostracism, verbal harassment and rumor spreading (Burnette & Newman, 2005). When high quality male mates are scarce females who are able to repel other female competitors, by physical means or by social ostracism, have a better chance of reproducing with the higher quality males and producing healthier and more successful offspring.

In primates dominant females harass subordinate females and can sometimes cause enough stress that subordinate females fail to come into estrus or may spontaneously abort pregnancies, meaning that in some species dominant females have more chances to procreate and better chances at producing more young than subordinate females (Campbell, 1995).

Campbell (1995) indicates that females also show an increase in aggression between the ages of 15 and 19. This peak, although a lot less severe, looks very similar to the peak in violence and aggression exhibited by male teens. The teen years and early adult years are also prime reproductive years for females, if males increased their intrasexual competition in the interest of procuring mates at this time, it would make sense that females would also compete to procure high quality mates at this time.

Dominance

Campbell (1995) suggests that dominance is not only a characteristic of males that has evolved due to direct male-male competition, but that it also may have evolved due to sex selection. Ancestrally, females preferred to mate with dominant males because they had more resources to donate to their offspring and were also more physically fit than other males (Campbell, 1995). In addition to male dominance, female dominance also has its benefits. In primates, dominant females have more opportunities to mate with dominant males and dominant females have the added bonus of being able to suppress estrus in competing females (Campbell, 1995). In some burying beetles, dominant females on a carcass supporting more than one female's clutch of eggs produce slightly larger clutches than their competitors (Eggert & Sakaluk, 1995).

Dominance in human males can be gained by intelligence, social resources, or brute physical strength and athleticism. Achieving dominance among females is less well studied, however some researchers hypothesize that dominance may primarily be achieved by both indirect aggression and

physical aggression (Campbell, 1995; Burnette & Newman, 2005). Indirect aggression can be described as social pressures, a female can attain dominance by forming cohorts that pressure, ostracize and bully other females into submission (Burnette & Newman, 2005). Although females have less to gain from physical assault, and possibly more to lose, female-female fights have been known to occur in populations where desirable male mates are scarce (Campbell, 1995). In populations that are characterized by poverty and scarcity of resources, less desirable mates may be a burden on women and as such female competition for healthy males that are good providers is rampant. Females that are willing and able to fight off rivals in order to gain access to these high quality mates have a better chance at producing healthy offspring and receiving resources from the male (Campbell, 1995).

A lack of dominance in males in relationships has been identified as a possible source of friction in marriages that may lead to spousal abuse (Newby et al., 2005). In a U.S study it was found that unemployed civilian men married to female army personnel were 3 times more likely than employed civilian husbands to be abused by their wives (Newby et al., 2005). Women in the army are probably more aggressive and dominant than their civilian counterparts, either due to training or to natural disposition (or both), and as such may be more prone to use physical violence. Because of the unique experiences of many army personnel, this population can not be easily generalized to the rest of the population.

Intersexual Violence

Intersexual violence is most often thought of as male aggressor and female victim, and in most cases this trend is true. Most cases of intersexual violence do involve males attacking females for a wide variety of reasons, but in many countries there is evidence of females attacking males. In Norway 1 in 38 men admitted to emergency rooms for assault were attacked by women (Knut & Steinar, 2004). Half of the men who reported being attacked by women reported that their attacker was a current or former intimate partner; as such they were labeled domestic assaults (Knut & Steinar, 2004). In a U.K study, 13% of a sample reported experiencing physical assault by a female perpetrator (George, 1999). Men were most likely to have been assaulted by a co-habiting partner and were most likely to be victims of either minor assault or severe assault (George, 1999). In 2002 women accounted for 17% of violent crime convictions in Canada, however this study did not specifically identify who their victims were (Siegel, Brown, Hoffman, 2005).

Cross culturally there seems to be a similarity between female perpetrated and male perpetrated attacks. Approximately half of the men who report being assaulted by women report that the aggressor was a current or former intimate partner, similarly approximately half of the women who report being abused by men report the attacker was a current or former intimate partner (Knut & Steinar, 2004; Campbell, 1995; George, 1999). Men and

women assaulted by same sex attackers were more likely to be attacked in public places in altercations labeled 'street fights' or 'pub/bar fights', and men and women attacked by opposite sex attackers were more likely to have been attacked in a private setting (Campbell, Muncer, Bibel, 2001; George, 1999). Men and women involved in same sex violence report that weapons are less likely to be used and that physical aggression such as kicking, punching, and pushing are more common (Daly & Wilson 1988; Campbell, 1995). Differences emerge when women attack men, females who attack males are more likely to use a weapon of some sort and are less likely to cause severe damage to their victims as when males attack females (Campbell, 1995). Differences in the sheer numbers of males who commit violence versus females who commit violence are severe; males are far more likely than females to commit violence as well as to be victims of violence (Daly & Wilson, 1988).

In domestic assaults perpetrated by women, the main reasons for the fights seem to be questions of infidelity on the part of their male partner (Campbell, 1995). Daly and Wilson (1988) suggest that many homicides perpetrated by males against their wives arise from questions of infidelity and also report at least one case of a woman murdering her husband when she caught him in the act of cheating. Other researchers have also indicated that infidelity may be one of the primary reasons for spousal assault and murder by males. Despite this knowledge that much spousal violence may be initiated by suspected or known infidelity by the wife, little or no research has been done on how women react when they suspect their husband is cheating. Daly and Wilson (1988) also indicate that upon the discovery of his wife/girlfriend's infidelity, the offended male may sometimes go after his rival. Campbell (1995) also indicates that when girls question their boyfriend's fidelity, they often attack their female rival instead of their boyfriend.

Intrasexual Violence Among Women

In their study of homicide, Daly and Wilson (1988) state that most male-male homicides seem to be preceded by relatively trivial altercations such as insults, pushing, or shoving. These trivial altercations can be perceived to be attacks on a male's dominance. Evolutionarily, dominant males had more access to fertile females and more chances to reproduce, as such males have evolved in such a way as to try and gain and maintain dominance. Threats to dominance must be retaliated against in order to maintain dominance and to maintain access to females.

Campbell (1995) argues that a similar process may have evolved among females as well. In her studies of female-female fights in Britain, most of the fights appear to have been preceded by accusations of promiscuity (Campbell, 1995). It seems that many instances of intrasexual aggression among females may be an attempt at defending one's reputation. Because of hidden ovulation in females and paternity uncertainty, a female's reputation as 'easy' or promiscuous may be a threat to mate acquisition. Males seeking long term

mates are not going to want to invest in a female with a reputation for being unfaithful because it may increase uncertainty that possible offspring produced in that union are his. When faced with accusations of promiscuity, females have no real way to prove that they are not promiscuous; as such beating up accusers may serve to inhibit other competitors from making the same claims (Campbell, 1995). In a similar vein, Cashdan (1997) highlights several cross cultural examples of female intrasexual violence triggered by questions of infidelity and accusations of promiscuity as well as direct physical competition over a particular male. It would seem that the most common reasons for why women fight each other is in defense of their reputation and in competition for high quality, valuable mates.

Crime and Poverty

Predictors for pathological or criminal violence in males are highly correlated with conduct disorder and antisocial personality disorders in men (Lalumière, Harris, Quinsey & Rice, 2005; Burnette & Newman, 2005). In order to be diagnosed with antisocial personality disorder as an adult one first has to be diagnosed with conduct disorder as a youth. Diagnosis of conduct disorder in male youths is highly predictive of future criminal behaviour and many life persistent antisocial personality males are involved with crime, some of it violent (Burnette & Newman, 2005). Antisocial personality disorder seems to be correlated with rape and violent crime in males but the same can not be said of life persistent violent women.

As stated earlier, in order to be diagnosed with antisocial personality disorder, one has to be diagnosed with conduct disorder as a youth first. Boys are diagnosed with conduct disorder approximately 4 times more often than girls (Burnette & Newman, 2005). This could be due to a reliance of evidence of physical violence to make a diagnosis and, as we have already established, males are more likely to resort to physical violence and females are more likely to resort to indirect aggression. Burnette and Newman (2005) suggest that if measures of social aggression were taken into account when dealing with girls then diagnosis of conduct disorder in boys and girls becomes essentially equivalent. This may allow for a better predictor of adult criminal behaviour in girls.

Perhaps an even better predictor of crime and violence among human beings is not a psychological diagnosis, but measures of poverty. It has long been noted and argued by sociologists that crime rates appear to be higher in areas with high poverty rates. Campbell, Muncer and Bibel (2001) suggest that women are more likely to engage in prostitution and theft when they are poor, committing these crimes may be attempts to procure resources in an uncertain environment. Poverty may also drive violence in women, when resources and viable mates are scarce; females are more likely to view violence as a less risky attempt to procure mates (Campbell, Muncer & Bibel, 2001; Campbell 1995).

Conclusion

In this paper I have attempted to provide varied examples of the existence of female aggression and violence and to make an argument that there is an evolutionary basis for female aggression. There is little research done in this area but there is evidence that female-female violence and female-male violence exists in many parts of the world. It appears that like male-male violence, female-female violence can be characterized as competition for mates. Males engage in physical fights over access to females and females engage in physical fights over access to males. Females tend to inflict less damage because they have less to gain from putting themselves at risk to gain access to a particular male. Because females are a commodity that males compete for, a female is more likely to produce at least one offspring in her lifetime where as a male is in more danger of not producing any. Therefore males are more driven to engage in riskier behaviour and to inflict more damage upon one another.

Males have been known to attack their girlfriends/wives because of infidelity and evidence is emerging that females also attack their boyfriends/husbands because of infidelity. Overall patterns of same sex and opposite sex violence perpetrated by males and females appear to be strikingly similar. Also both males and females appear to have similar violence curves over time, although the female curve is much more muted than the male curve, both males and females seem to peak in violence committed during their teen and early adult years when they are at their peak reproductive potential.

It may very well be that our ancestors, both male and female, were subject to similar evolutionary pressures in mate selection and that, when it comes to aggression at least, they may have evolved similar strategies. I am not attempting to argue that males and females commit aggressive acts in the same numbers, or that they commit aggression in the exact same ways either. I am suggesting that both males and females probably evolved in such a way that both use aggression when it is beneficial for acquiring mates.

The theory that women's mating strategies are passive and that women do not compete for mates is androcentric and archaic. Worse still, such theories do not allow for a view of female aggression as 'normal'. If it is not possible for female aggression to be 'normal' then violent female criminals and aggressive female teenagers will forever be pathologized and their behaviours will never be fully understood.

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