**Title of entry:** Contexts for men’s aggression against men

**Synonyms:** violence, aggression, intrasexual competition, mating effort, sex ratio

**Definition:** Male-to-male aggression reliably arises in situations where men compete against other men for mates.

**Authors:** Khandis R. Blake¹ & Thomas F. Denson²

¹ School of Biological, Earth, and Environmental Sciences, UNSW Australia

² School of Psychology, UNSW Australia


Correspondence:

Khandis R. Blake, Ph.D.
Evolution and Ecology Research Centre
School of Biological, Earth, and Environmental Sciences
UNSW Australia
University of New South Wales
Sydney, NSW 2052
k.blake@unsw.edu.au

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**Introduction**

One robust empirical observation is that men are more aggressive and violent than women. Aggression is behavior intended to hurt another person and violence is aggressive behavior intended to cause severe physical harm such as death or injury (e.g., Anderson & Bushman, 2002). Sex differences in physical aggression and violence are typically in the medium-to-large range (Archer, 2009). Moreover, men are the primary perpetrators and victims of violence nearly everywhere in the world. Globally, men comprise 95% of all homicide victims and 80% to 97% of homicide perpetrators (UN Office on Drugs and Crime, 2013). In other mammalian species such as chimpanzees (one of our closest primate relations), males are also the more violent sex.

Although aggressive behavior is often learned, evidence suggests that much male violence is caused by an evolved predisposition. Boys are more aggressive than girls even before two years of age, suggesting that men’s tendency towards aggression is present before social learning can provide a reasonable explanation for behavior. After two years of age, aggression declines in both genders but rises again in 18–30 year-old men but not women. This peak in male violence coincides with men entering the mating market at a time when they have achieved their maximum size and strength (Archer, 2009). Sex differences in aggression are also limited to physical aggression and do not include verbal (e.g., insults) or indirect aggression (e.g.,
gossiping; Archer, 2009). These findings imply that physical aggression in ancestral men was adaptive (and may still be in some circumstances). It is these circumstances that elicit male-to-male aggression that this chapter is primarily concerned with.

In Wilson and Daly’s (1985) classic article on male-to-male violence, they describe a murder case from Detroit in which two young men are drinking together with other people. The perpetrator humiliates the victim by lifting him up between his legs. The victim asks to be put down while others laugh at him. The aggression escalates to hitting and eventually the offender shoots and kills the victim. To many observers, this type of violence and escalation of violence seems excessively disproportionate. But what if one of the onlookers was a romantic interest that the victim or both men were trying to impress? What if appearing weak in the peer group might elicit further victimization and loss of status? This chapter first introduces relevant work on men’s adaptations for physical aggression. It then examines the contexts in which men are the primary victims and perpetrators of violence. These contexts will show that male-to-male aggression reliably arises in situations where men compete against other men for mates.

**Main Text**

1. **Men’s adaptations for physical aggression**

Evolutionary scientists suggest that men possess adaptive psychological mechanisms and physical abilities that predispose men to fight other men when specific situations are encountered (Archer, 2009; Buss & Shackelford, 1997; Sell, Hone, & Pound, 2012). One fundamental of evolutionary theory is that adaptations must have directly or indirectly solved an adaptive problem and thereby increased reproductive success in past generations. Buss and Shackelford (1997) proposed seven adaptive problems that aggression could solve. Of the seven, five are
relevant to male-to-male violence: taking others’ resources, defense, inflicting costs on other male sexual rivals, negotiating status hierarchies, and deterring other men from future attack.

To further elaborate on these adaptive problems, men often use violence to forcibly take resources from other men and also defend themselves against other men. This type of raiding and robbery has long been a part of human history and has been observed in chimpanzees. Inflicting costs on sexual rivals occur when men disparage or weaken other men in front of a potential mate. In extreme cases, men often murder other men who have sex with their sexual partner. Depending on the type of status hierarchy, men who display aggression toward other men are often respected or hold more power than other men. Similarly, aggressiveness or even a reputation for swift and violent retribution can be an effective deterrent to violence from other men. Thus, violence likely solved many adaptive problems faced by ancient men. Such violence probably contributed substantial reproductive benefits to those men who were willing and able to use it effectively.

One putative adaptation that could solve these adaptive problems would be greater physical size and upper body strength (Sell et al., 2012). Upper body strength is important because fighting and using traditional weapons such as spears, clubs, bows, staffs, and swords required upper body strength. Because maintaining upper body strength and larger physical size is metabolically costly, it seems unlikely that these characteristics would have evolved had it not conferred fitness benefits. For men facing these adaptive problems, being larger and stronger than one’s opponent would have been helpful in winning physical contests.

At the heart of whether a man behaves violently or not is the cost-benefit analysis. When directed against the right man at the right time, male-to-male violence could increase access to reproductively relevant resources (e.g., money, land), social status, and imbue a reputation for
fierceness. These spoils of violence could then be used to attract or coerce women. In the wrong situation, however, enacting violence upon others can be a costly strategy. Psychological mechanisms for weighing the costs and benefits of engaging in violence in certain situations would thus offer men considerable reproductive advantage.

Men do indeed seem to “size up” other men to determine the costs associated with potential aggression. Men possess remarkable abilities to quickly determine the costliness of a potential violent conflict. Many other species also possess these abilities (see Sell et al., 2012). For instance, people can accurately assess men’s upper body strength and fighting ability from their faces, voices, and body (Sell et al., 2012). Moreover, in these studies, both male and female participants were better able to assess male upper body strength than female strength. The ratio of the facial width to height is also particularly important for influencing judgments of aggressiveness and dominance. Thus, the upper body strength and facial features of a male opponent is an important piece of information in the cost-benefit analysis of the decision to use violence or not.

In sum, throughout human evolution, much male-to-male competition has been violent and still is today to a lesser extent. It seems likely that this competition created strong selection pressures which produced physical and psychological adaptations that enhance the likelihood of using violence in certain contexts.

2. Male-male aggression occurs when there is competition for women

A compelling explanation for the prevalence of male-to-male violence comes from sexual selection theory (Trivers, 1972). Sexual selection theory posits that the sex with the greatest minimum investment in producing offspring will be more cautious and choosy in mate selection (Trivers, 1972). The maximum number of offspring that women can have is more limited than
the number of offspring that men can have. This asymmetry is because women’s minimum obligatory parental investment is greater and women’s reproductive success is physiologically limited by the frequency of ovulation and energetic cost of lactation. For these reasons, the cost of indiscriminate mating is greater for women. Thus, women tend to be the “choosier” sex when it comes to selecting a mate. As a result, men often compete against other men to enhance their chances of being chosen as a mate.

Male intrasexual competition is exacerbated by men’s high reproductive variance (i.e., the variability in the number of offspring men produce). Men’s reproductive variance is greater than that of women, meaning that some men produce many children and others none. Polygyny, in which one man could monopolize reproductive access to many women, contributes to men’s high reproductive variance. Historically, polygyny was common. More than 80% of cultures documented by anthropologists allow for polygyny. Under these conditions, winning mating contests provides the opportunity for reproductive access to a greater number of potentially fertile women and therefore more offspring in the next generation. As a result of this polygynous societal structure, many men will have no reproductive access to women and leave no descendants. Thus, mating competition is a potent selection force for men. High reproductive variability means that men are in competition with other men to accrue mates and reproductively relevant resources.

Aggressive and risk-taking phenotypes appear to increase men’s reproductive success when mating competition is intense. Under polygynous mating conditions, men are larger than women and more muscular. In these conditions, men engage in more intrasexual competition and risk-taking behavior. These findings suggest a history in which physical strength, fighting ability, and risk-taking secured men a greater number of mates.
Although counterintuitive, there is good evidence to suggest that risk-taking increases men’s reproductive success. In conditions where men have greater reproductive variance, the possibility of greater gains and greater losses increases the likelihood of taking risks to secure a mate. A good example of this proposition comes from an evolutionary simulation by Daly and Wilson (1988). In that computer simulation, each individual possessed low, medium, or high-risk competitive reproductive strategies. Competition took the form of fights between two individuals. The simulation showed that selection favored relatively risky competition strategies even when mortality costs were high, providing that the costs of losing and gains of winning were great (i.e., low or high reproductive success). Even though high-risk individuals experienced the greatest mortality, when the gains were associated with high reproductive success, high-risk individuals experienced the greatest fitness.

The finding that high-risk strategies are associated with greater fitness in polygynous mating conditions suggests that males should be most risky and aggressive when they are actively competing for mates. In men, this time period is usually young adulthood, and much evidence documents this heightened aggression. A meta-analysis of 353 studies found that sex differences in physical aggression peaked during the ages of 18–30 years (Archer, 2004). Men are most violent when they are in venues where they can compete over women, such as bars and nightclubs. Men’s involvement in male-male homicides also peaks during this age range (Daly & Wilson, 1988), irrespective of the overall rate in the society.

Further support for the relationship between intrasexual competition and men’s aggression comes from data on men’s aggression when they are mated and unmated. Men’s aggression and risk-proneness decline when they marry and invest in children. This decline is presumably because marriage secures a pathway for men to propagate their genes. However,
when men get divorced or their spouse dies, their aggression and risk-taking reverts to levels comparable with single men in their age group. This pattern may result because upon marriage dissolution, men lose reproductive access to their former spouse. The increase in aggression and risk-taking presumably occurs because divorced or widowed men re-enter the mating market.

Men’s aggression in intrasexually competitive scenarios is selective. In traditional hunter-gatherer societies who are not at war, one of the most common reasons for male-male homicide was competition over a woman. In these instances, murder of a rival often led to securing a mate. This phenomena has been documented in the Tiwi of North Australia, the Inuit of North America, the !Kung of the Kalahari Desert in South Africa, the Siriono of Bolivia, and the Arapesh of New Guinea (Symons, 1979). Thus, one effective method of removing a potential rival from the mating pool is homicide. These examples suggest that extreme forms of male-male violence such as homicide can function to increase men’s reproductive success in certain contexts.

3. Male-male aggression occurs when status is at stake

Aggression and violence can also increase reproductive success by elevating male status. High status is ubiquitously preferred by women in potential mates (Buss, 1989; Hill & Hurtado, 1996). This preference is presumably because status usually confers the ability to provide resources. Resource provision can function as a form of parental investment (Trivers, 1972) and men often display their resources to attract and retain mates. In a variety of societies, men who have higher status have greater reproductive success than those who are lower in status (Betzig, 1994). High status men tend to obtain and marry women who are sought after and more physically attractive. High status men also have more female mates (Hill & Hurtado, 1996). It has been estimated that 8% of modern Asian men have DNA linked to Genghis Khan, which is
0.5% of the male population worldwide. Similar findings have been reported for other ‘strong men’ who ruled in Ireland and China centuries ago.

Successful intrasexual competition—especially when achieved through aggression and violence—is linked to higher social status in men. For example, young men in many tribal societies gained status and honor through homicide (Daly & Wilson, 1988). Male warriors in these societies had more children, more sexual partners, and higher status (Chagnon, 1988). In the Ache of Paraguay, men who had survived many battles attained status and power as a result of their aggression (Hill & Hurtado, 1996). Similar findings are sometimes still observed in current times. In the United States, the most violent gang members are often bestowed the highest status and the most sexual partners (Campbell, 1993). These findings suggest that high status confers direct reproductive success to men.

Inherent in these data is the notion that concerns about status drive men’s aggression and violence. Indeed, in addition to revenge, competition for status is one of the most widely documented sources of violent conflict. The majority of alcohol-related violent episodes are related to pursuing social status. Experimental social psychology research shows that men report a greater likelihood of aggressive or costly retaliation against others when their status was threatened (Geniole, Cunningham, Keyes, Busseri, & McCormick, 2015). Priming status competition in men also increases the likelihood of aggression against other men (Griskevicius et al., 2009). Winning an aggressive bout against a higher status man could yield greater gains by rapidly elevating the aggressor’s place in the status hierarchy. For instance, monarchs experienced a much higher rate of homicide than the general population.

A good example of male-to-male aggression caused by status threat is observed in cultures where the rule of law is weak. Nisbett and Cohen (1996) argued that violent retaliation
against status threats is adaptive for men in some conditions. When the rule of law is weak, resources such as livestock can be taken by force. In these conditions, cultivating a reputation for aggressive retaliatory ability is paramount as it dissuades potential competitors. Nisbett and Cohen (1996) suggest that a ‘culture of honor’ emerges under these scenarios, in which even trivial slights escalate to violent aggression in an attempt to protect one’s reputation. This phenomenon has been confirmed cross-culturally, with revenge and retaliation more prevalent in societies where livestock could be taken by force and where societal institutions are weak. The implication is that under conditions in which a reputation loss may result in resource loss, men are quicker to aggressively defend themselves against status threats.

Much male-male violence results from trivial altercations, which outside observers would declare petty or insignificant. However, threats to status are inherent in many of these altercations (Wilson & Daly, 1985). These altercations usually involve one man challenging the status of another. When acquiescing might involve a potential loss of status and respect, neither man stands down. As a result, violence often erupts. In support of this notion, Wilson and Daly (1985) found that the majority of homicides between men concerned real or imagined threats to status. Insults and public humiliation have also been shown to commonly provoke fights between young men.

The importance of status to men’s reproductive success means that situations in which status gains or losses are at stake can elicit male-to-male aggression. Men who fare better in aggressive competitions gain status as a result. In contexts where status threats can result in a loss of resources, men are quick to aggressively defend themselves. The purpose of this aggression and violence is to ensure that their reputation for aggressive retaliation dissuades status challenges.
4. Male-to-male aggression occurs when men’s opportunities to obtain resources are bleak

Another condition that increases men’s aggression is when their own social status is low. Women value high status in potential mates (Buss, 1989) and when a man has low status (for example, if he is unemployed or has a low paying job) his likelihood of marrying drops. Because marriage is one pathway to securing reproductive success, relatively low status men are at a reproductive disadvantage. Compared to mid- or high-status rivals, low status men have fewer opportunities to gain status and resources through traditional means. In these circumstances, low status men can seek out alternative routes for access to status and resources. These alternatives often involve taking more risks to out-compete rivals. For instance, stabbing a drug dealer in the neighborhood and stealing his car and money may help a low status man garner resources to attract women and a reputation as a formidable opponent. Although this strategy is risky, men who feel they have little to lose might appraise this situation in a way that shifts the balance of the cost-benefit ratio toward violence.

In support of these notions, Wilson and Daly (1985) consistently find that male-to-male homicide perpetrators are more likely to be unemployed and unmarried. Many systematic reviews of the literature on crime and status also link low status with increased crime and homicide in particular. Violence also generally increases amongst men who lack economic resources or prospects (Daly & Wilson, 1988), yet decreases alongside men’s opportunities for resource acquisition. As the gross domestic product, college enrollment, and educational opportunities for young adults increase, homicide declines considerably (Hiraiwa-Hasegawa, 2005). This relationship is presumably because these factors allow men to focus on gaining status and resources through traditional, non-violent means.
A related scenario that escalates aggression is when income inequality—rather than absolute income level—is high. Figueredo, Gladden, and Hohman (2012) explain that because sexual selection operates on relative reproductive fitness rather than absolute numbers of offspring, even a man with a steady income may feel he is losing out compared to his competitors. Income inequality thus escalates competitive tactics, with those at the bottom of the distribution feeling that they have little to lose from aggressive or risky strategies. In support of this notion, studies consistently demonstrate that the Gini coefficient (in which higher values index greater economic inequality) positively predicts national homicide rates even when controlling for relevant confounding variables (e.g., Walasek & Brown, 2015). Income inequality also increases other intrasexual competition behaviors: when the Gini coefficient is high, men and women are more interested in acquiring luxury goods that are used to signal high status to competitors and potential mates (Walasek & Brown, 2015).

Aggression and violent crime can ensure low status men gain reproductively relevant resources that otherwise may not have been available. In this sense, aggression can be used to co-opt the resources of others (Buss & Shackelford, 1997). For example, thieves can acquire valuable weapons or money from rivals; mates can be poached from existing relationships; and violence can be used to acquire territory rich with natural resources or other uses. Criminal and violent behavior can also be used to damage a rival’s reputation (Buss & Shackelford, 1997). By cheating another person out of a resource, the cheater acquires the resource and bestows upon the victim a reputation as someone who is easy to exploit (Buss & Duntley, 2008). Such a reputation could invite future exploitation attempts and diminish the social standing of the victim.

In sum, when men’s opportunities to obtain resources are bleak—either because their social status or relative income is low—men are more likely to aggress against other men. In this
context, male-to-male aggression can function as an alternative strategy to access status and resources.

5. **Male-to-male aggression occurs when there is an abundance of women**

Because men are more aggressive and criminally inclined than women, a seemingly logical conclusion is that when there are more men in a given society, there should be more aggression and crime. As it turns out, this statement is not generally true. Societies with an excess of men usually have lower rates of violent crime (Walsh, 2003). Parental investment theory (Trivers, 1972) provides one potential explanation for this surprising finding.

Parental investment theory (Trivers, 1972) suggests that men’s mating strategies are context dependent. In some scenarios, men engage in what is called *direct mating effort*. They compete against other men for access to fertile mates and avoid contributing to parenting. In other scenarios, men focus on *indirect mating effort*: They channeling their attention to securing one mate by advertising their ability to parentally invest. Because direct mating effort involves more direct intrasexual competition, it also involves more male-male aggression and violence. By contrast, indirect mating effort often involves garnering economic resources and advertising them to increase the likelihood of securing a long-term partner. Thus, indirect mating competition can shift male intrasexual competition from direct male-to-male aggression to the economic arena.

The operational sex ratio is one environmental feature that influences men’s mating strategies and associated aggression and violence. The operational sex ratio in humans is the ratio of sexually active men to fertilizable women. It depends on the reproductive rate of men and women, which is influenced by the minimum obligatory parental investment and the age at which marriage is likely. When the operational sex ratio is high, there are more men than
fertilizable women, making women a scare resource. In these societies, women’s ability to demand greater parental investment and resource potential in men increases. As a result, women are highly sought after as marriage partners and men often focus on indirect mating effort to attract a wife.

Barber (2009) explains that when women are the scarcer gender, they are less likely to have sex outside of marriage. The implication is that pre-marital sex would damage a woman’s marriage prospects. As a result, there is little direct mating competition between men over sexual access to women and indirect mating effort is again emphasized. Thus, men in these contexts compete for long-term and marriage partners rather than short-term sex partners (Guttentag & Secord, 1983). Because there is less direct mating effort, aggression is reduced.

In contrast, there are also situations where men are the scarce gender. After periods of wartime, for example, the death of many men in combat can result in an excess of fertilizable women compared to sexually active men (a low operational sex ratio). In these situations in which males are a scarce resource, females from a variety of species have been shown to engage in more intrasexual competition (Rosvall, 2011). When men are scarcer, women advertise their sexuality, engage in more casual sex, and have more sex outside of marriage (Cashdan, 1993). Indeed, there is an inverse relationship between the operational sex ratio and the rate of single parenthood and teen births (Barber, 2005). Moreover, after World War II, shortfalls of men significantly increased the rate of out-of-wedlock births in the USA (Guttentag & Secord, 1983). The implication is that fewer men makes marriage more difficult for women. As a result, women engage in more premarital sexual activity to attract mates because an oversupply of women means that their marriage prospects are reduced.
The result of this increased propensity towards sexual activity outside of marriage in women is that direct mating competition increases among men. When fewer barriers exist for sexual access to fertilizable women, men directly compete against other men for mates. The opportunity for reward is high, yet so is the cost of failure (i.e., high and low reproductive success, respectively). Increased direct mating effort means that some men engage in more risky strategies in an attempt to monopolize the mating market and out-do their competitors (Wilson & Daly, 1985). Men who were willing to take risks would have had an advantage directly competing for mates and seem to have been more likely to leave descendants (Kruger & Nesse, 2004). As a result, male-to-male aggression and violence escalate. Indeed, there is a strong negative association between a society’s operational sex ratio and its level of murders, rapes, and assaults (Walsh, 2003). This finding has been documented cross-culturally even when controlling for economic development, form of relationships (e.g., polygamy), number of police, population density, drug trafficking, urbanization, infant mortality, and geographical region (Barber, 2009).

A secondary mechanism whereby the operational sex ratio may increase violence is through parental investment. When men are the scarce gender and the operational sex ratio is low, marriages tend to be less stable (Guttentag & Secord, 1983). There are higher rates of single parenthood and divorce, meaning that paternal investment in offspring is reduced. Again, this finding could reflect increased direct mating effort in men: Instead of focusing on parental investment, men focus on directly competing for women. Barber (2009) suggests that research showing that children of single mothers are more criminally-inclined is reflective of such conditions in which men are reproductively scarce. These conditions create rearing environments
that normalize low-investment reproduction and facilitate antisocial or criminal tendencies in offspring.

Underlying these ideas is the notion that rearing conditions characterized by low paternal investment contribute to what evolutionary scientists call a “fast life history” (Belsky, Steinberg, & Draper, 1992). Life history theory proposes that an organism’s behavior and reproductive strategies are influenced by their physical and ecological environment. When an environment is harsh or unpredictable, a fast life history ensues (Belsky et al. 1991). People with a fast life history have earlier sexual experiences and multiple sex partners, events characteristic of a focus on high offspring numbers and thus direct mating effort. Because the environment is unpredictable, high risk strategies to attract mates as quickly as possible are more appealing. As a result, crime and aggression increases.

In sum, low operational sex ratios can facilitate violence by enhancing men’s direct mating efforts and altering the rearing environment of their subsequent offspring. Offspring raised in these rearing environments are more likely to adopt a fast life history strategy. This fast life history strategy emphasizes direct over indirect mating effort, thus perpetuating the cycle of increased male-to-male violence.

**Conclusion**

Human evolutionary history has predisposed men to use violence against other men to obtain mates, status, and reproductively relevant resources. This chapter reviewed evidence suggesting that men have evolved physical and psychological adaptations to facilitate male intrasexual competition. Men are physically larger and stronger than women. They very quickly and efficiently use cost-benefit analyses to “size up” potential male opponents from minimal information such as tone of voice or facial features.
An integration of the existing research identified situations that promote violence between men. Because most human societies allow some form of polygyny, men must compete directly or indirectly to appeal to women. Indeed, violence between men peaks when men are part of the dating market and declines after marriage. As in other primate species, status is important for reproductive success. Thus, when men can obtain higher status or experience a threat to their status, they may use violence to deal with these situations. Poor or otherwise low status men are most likely to use violence because without status or wealth, men in most countries will have little opportunity to attract a mate. Perhaps the most counterintuitive finding is that a relative abundance of women can facilitate male-to-male violence. In these situations, men can engage in more direct and violent competition for short-term mates rather than in indirect, non-violent competition.

Even though these situations tend to elicit greater aggression between men, they need not completely determine violent behavior. Human males do indeed have these basic tendencies and adaptations that enhance intrasexual violence in certain contexts and in response to certain types of provocations. However, cultural evolution has produced a substantial decrease in violence over the past few centuries and operates quicker than biological evolution. Thus, hope for reducing male-male aggression will be through the cultural route. For instance, men and boys could be educated about the severe consequences of making seemingly “trivial” status-threatening jokes.

Cultural changes at the institutional levels could also reduce male-male violence. Using sound government economic and social policies to increase wealth may reduce homicide because low status, poor men tend to be the most common offenders. However, increasing absolute wealth alone may not reduce violence so long as substantial inequality exists in relative wealth.
Thus, reducing inequality seems like a valuable means to reduce violence. In sum, although men are predisposed to hurt each other in certain contexts, with awareness and cultural change, they need not be beholden to violent tendencies.
Cross-References: Adaptation, Characteristics of Male Perpetrators, Condition Aggression, Condition-Dependent Mating Tactic, Culture of Honor and Individual Differences, Defending Sexual Access, Increased Mating Success/Access, Mate Value, Reproductive Strategy, Negotiate Status Hierarchies, Mark of Status, Status and Dominance Hierarchies, Indicators And Correlates Of Status And Dominance, Evolutionary Theories Of Status, Dominance, And Prestige, Female Choice and Male Status, Greater Risk-Taking And Status, Aggression To Thwart Intrasexual Rival, Meta-Analysis Of Sex Differences In Aggression, Reputation as a Context for Men’s Aggression against Men, Operational Sex Ratio, Sex Ratio and Men’s Long-Term Mating.
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