

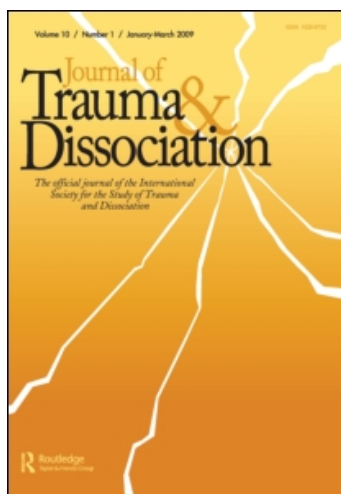
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### Reengineering Gender Relations in Modern Militaries: An Evolutionary Perspective

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## **Reengineering Gender Relations in Modern Military: An Evolutionary Perspective**

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*This article presents an evolutionary framework for understanding the sexual assault of women in the military. We specify the evolutionary underpinnings of tensions among heterosexual males, among heterosexual females, and between males and females and discuss how these tensions have played out in the strongly gendered context of warrior culture. In the absence of cultural interventions that take into account deep-seated conceptions of women in the military as unwelcome intruders, sexual resources for military men, or both, military women operate in an environment in which sexual assault may be deployed to enact and defend traditional military structures. We discuss how unit norms are likely to affect the choice of strategies by men and by women and how the resulting behaviors—including celibacy, consensual sex, and sexual assault—should affect horizontal and vertical unit cohesion. The framework is intended to guide future data collection in theoretically coherent ways and to inform the framing and enforcement of policies regarding both consensual and non-consensual sex among military personnel.*

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Recent studies suggest that a substantial proportion of military women (and a smaller proportion of military men) experience sexual harassment, coercion, and assault during their service (Friedman, 2006; Sadler, Booth, Cook, & Doebbeling, 2003; Yaeger, Himmelfarb, Cammack, & Mintz, 2006). Military sexual assault (MSA) contributes to the incidence of posttraumatic stress disorder (PTSD) in veterans. Among Gulf War veterans, being sexually assaulted increased the odds of developing PTSD to a greater degree than did combat experience for both men and women (Kang, Dalager, Mahan, & Ishii, 2005). Of the 2 million Americans who have served in Iraq and Afghanistan since 2001, 11% (more than 220,000) have been women (Alvarez, 2009). If estimated prevalence rates for female veterans from the Vietnam and post-Vietnam eras (Sadler et al., 2003) are comparable for this population, between a quarter and a third of these women have experienced one or more completed or attempted rapes.

As mandated by Congress, steps have been taken to assess the problem of MSA in the U.S. military. Systematic, reliable data on MSA within the armed forces are not yet available, however. Reporting in December 2009, the Defense Task Force on Sexual Assault in the Military Services found the Department of Defense procedures for collecting data about MSA to be "lacking in accuracy, reliability, and validity" (Iasiello et al., 2009, p. 77). Other sources of data include responses to universal screening questions by the Veterans Health Administration (e.g., Kimerling, Gima, Smith, Street, & Frayne, 2007), clinical interviews of veterans receiving treatment (e.g., Yaeger et al., 2006), and self-report responses to surveys and questionnaires (e.g., Murdoch, Polusny, Hodges, & O'Brien, 2004). The variance in reported prevalence rates of MSA among women, from less than 5% to more than 70% (for a review of the studies, see Suris & Lind, 2008), suggests that all estimates should be treated with caution. Data on the men (studies typically find that close to 100% of perpetrators are male) who are assaulting military women (and, less commonly, other men) are even sparser, and studies (e.g., Sadler et al., 2003) that collect data on characteristics of both victims and their assailants are exceedingly rare.

Theoretical accounts of MSA are also in an early state of development. New theorizing about wartime rape (Henry, Ward, & Hirshberg, 2004; Littlewood, 1997; Stiglmayer, 1994) was prompted by widespread sexual violence during the Rwanda genocide and Balkan conflicts. However, these accounts focus on the rape of civilians officially defined as the enemy. MSA generally occurs among members of the same military. Models of sexual

harassment in the civilian workplace have also been applied to the military (e.g., Fitzgerald, Drasgow, & Magley, 1999). However, it appears that the direct antecedents of sexual harassment (job gender context and organizational tolerance) are only indirectly associated with sexual assault in the same context (Harned, Ormerod, Palmieri, Collinsworth, & Reed, 2002).

In this article, we offer a theoretical account of male-on-female MSA that integrates military culture and gender dynamics, guided by evolutionary theory. It does not cover the topic fully. In particular, the evolutionary grounding for our model offers little traction for explaining male-on-male sexual assault or the much rarer phenomenon of female assailants. Despite these limitations, we believe it can serve as a useful building block in developing a more comprehensive account of MSA to guide both research and practical efforts at reform.

We begin by specifying the evolutionary underpinnings of tensions among heterosexual males, among heterosexual females, and between males and females and then discuss how these tensions have played out in the strongly gendered context of warrior culture. As Goldstein (2001, p. 7) documented in his comprehensive study of gender and war, the strongest gender roles are those connected most closely with war. In this strongly gendered context, women in the military have frequently been viewed not as fellow soldiers but either as intruders or as a sexual resource to be exploited (Goldstein, 2001; Rosen, Knudson, & Fancher, 2003). In the absence of cultural interventions that take into account these deep-seated and long-standing conceptions, military women operate in an environment in which sexual assault may be deployed to defend traditional military structures.

## THE EVOLUTIONARY LOGIC OF GENDERED RELATIONS

Gottschall (2004, p. 129) identified four theoretical frameworks that offer explanations for wartime rape: feminist theory, cultural pathology theory, strategic rape theory, and biosocial theory. The biosocial theory of wartime rape integrates sociocultural factors with the evolved sexual psychology of human males. Our approach is similar, although we pay attention to the evolved sexual psychology of females as well and focus on men and women who are serving in the same military.<sup>1</sup> The primary sociocultural factors we integrate are socialization practices and cultural gender norms common to both warrior bands and large-scale militaries across history.

The evolutionary logic of differential parental investment has shaped sex differences in mating strategies between heterosexual men and women (Trivers, 1972, 1974). The demands of pregnancy, lactation, and childrearing mean that women reliably invest more in offspring than do men. The mother's investment is more critical for a child's survival, and the smaller investment by males makes their fecundity more variable than

females'. Sexual strategies shaped by these differences yield both conflict and cooperation within and among men and women. Although they evolved based on differential demands regarding mating, reproduction, and parenting, the implications of these sexual strategies can be activated in domains (such as war fighting) that appear on the surface to have little to do with reproduction.

### Male Competition and Cooperation

Heterosexual men compete with one another to gain access to women (Daly & Wilson, 1978; Van Vugt, De Cremer, & Janssen, 2007), and this status competition can disrupt group living. For men, risk taking that might enable higher status and more mating opportunities is frequently worth the gamble of interpersonal violence (Campbell, 2002, p. 100). When violence is between groups instead of individuals, the stakes are even higher: the reproductive success of both oneself and one's blood relatives.

War can have both disastrously bad and spectacularly positive effects on male reproductive success, depending on whether warriors are on the losing or winning side. For the vanquished, ancestral war had potentially genocidal effects either on a whole group or on the male lines of descent within a group (Keeley, 1997; LeBlanc, 1999, p. 716). For men in the victorious group, collective access to women in the defeated population offers opportunities to father more offspring. Military prowess can also result in higher status and hence better mating success within one's own population. A link between military and reproductive success has been documented among Yanomamo men: *Unokais*, who have killed one or more enemies, have more wives and children than non-*unokais* (Chagnon, 1988).

Warriors are unlikely to prevail in war if they cannot cooperate effectively, and hence war provides a potent stimulus for men on the same side to reduce interpersonal conflict. Sharing the collective rewards of victory helps reduce intragroup sexual competition among men. The transfer of status competition to the intergroup level helps promote within-group cooperation among men (Van Vugt et al., 2007), creating a mutually reinforcing positive feedback loop that in turn promotes military effectiveness (Shils & Janowitz, 1948).

A strong hierarchy, which is typical of modern militaries, reduces the propensity for lower ranked males to challenge higher ranked males. This facilitates vertical cohesion, the bonds between men and their leaders (Griffith, 1988). Horizontal group bonding among men of the same rank reduces the intensity and lethality of competition within cohorts by inducing them to view one another as brothers with a mutual interest in survival. Men more than women value groups that affirm a common identity that ties all of the men to the group (Seeley, Gardner, Pennington, & Gabriel, 2003).

Cultural practices that bond groups of men together, such as initiation rites, are widespread. A study of 60 societies found that the prevalence of warfare was the best predictor of the severity of such initiation rites (Sosis, Kress, & Boster, 2007). In contemporary militaries, basic training exerts intense stress on recruits to reinforce a strong collective identity. These bonds strengthen in combat, developing into the tactical cohesion that holds units together and maintains effectiveness under fire (Greenbaum, 1979; Marshall, 1947). In this way, the social engineering of male bonding both damps down intragroup fighting over women and promotes victory in war.

When military socialization is designed to forge men into male-bonded groups, women are commonly viewed as a threat to group cohesion. Cross-cultural studies have documented an extremely common cultural pattern in which women's influence on men's hunting and war is seen as harmful. Taboos against women using weapons associated with these male activities (Brightman, 1996) effectively exclude women from the ranks of warriors. If this view of women as harmful intruders is normative for a group, sexual assault of military women may be used to protect the male-bonded unit. Assault may include gang rape, which both punishes women who are violating gender norms and binds the men in a collective deviant act (Bourke, 2007, p. 376). When women serve in support roles that the men do not view as threatening the integrity of the group, however, they may instead be valued as members of the society that the (male) warriors are defending.

### Female Competition and Cooperation

Women compete to mate with the "best" men to ensure healthy children and to secure resources. However, women are much more likely than men to choose indirect forms of aggression over physical violence, as physical injury can impede effective childrearing (Campbell, 2002; Geary, 1998; Hrdy, 2000). Women also differ in how they deploy their sexual assets to attract resources from men, and this creates conflict. Those who have or are seeking committed male–female pair bonds are at odds with sexually promiscuous women who might threaten the channeling of resources to their children (Campbell, 2002; Geary, 1998; Hrdy, 2000).

This conflict drives the dynamic that unites wives against mistresses and prostitutes, promoting female alliances against women who use a different sexual strategy. Pair-bonded women also benefit from cooperation to share childrearing tasks and protect collective resources their children need. They may also ally with other women to reduce male sexual coercion (Gowaty, 2003; Hrdy, 2000; Low, 2001; Smuts, 1992; Zihlman, 1981).

Cultural practices that bond sizeable groups of unrelated women together in symbolic sisterhood appear to be less common than those that bond together unrelated bands of brothers. Although women have long been

involved in war (De Pauw, 1998; Enloe, 2000; Goldstein, 2001), participation as warriors in formally organized units has been the exception rather than the rule. Outside of the domestic sphere, in which the women are related by blood or marriage, female coalitions are rarely as powerful as those formed by males (Low, 2001).

Differences in behavior evoked by intergroup as opposed to interpersonal contexts are weaker among women (Wildschut, Pinter, Vevea, Insko, & Schopler, 2003), and intergroup competition in particular has less impact on women's propensity to cooperate than it does on men's (Van Vugt et al., 2007). The lower importance of common identity for women (Seeley et al., 2003) makes it a less potent route to horizontal cohesion. This may be why military women prefer working with men: 8% agreed with the statement "I prefer to work with female soldiers," 63% disagreed, and 29% were undecided (Rosen et al., 1996).

### Competition and Cooperation Among Men and Women

Differences in parental investment fuels a fundamental conflict between the sexes (Trivers, 1972, 1974). Men tend to favor strategies that improve their access to and control of female sexuality, whereas women seek to maintain control of their own sexuality and reproduction and reduce male sexual coercion (Geary, 1998; Gowaty, 2003; Hrdy, 2000). From a biosocial perspective, this conflict is at the root of the dominance struggles that are a major focus of feminist theory and scholarship (Smuts, 1992). Both perspectives recognize that strong male alliances help maintain male dominance and neutralize the impact of female alliances, reducing female autonomy and choice (Low, 2001).

The sexual strategies of men and women can also mesh cooperatively when men and women join in committed pair bonds. Mothers and fathers have a shared incentive to cooperate in successful childrearing (Hrdy, 2009). Given that conflict between the sexes is a source of solidarity among men and among women, what impact do these cooperative heterosexual pair bonds have on cohesion among and between men and women? Existing data present a mixed picture consistent with the complexity of the interwoven incentives for competition and cooperation both within and between the sexes.

For example, although some scholars link a masculinist warrior identity with rape-conducive norms (e.g., Morris, 1996), it appears that in male-only units, cohesion-promoting hypermasculinity at the group level is also positively associated with support for spouses (Rosen et al., 2003). This positive relationship was not found in mixed-gender combat support units. The explanation may lie in the power of male-female pairings to disrupt alliances among males when these pair bonds are not clearly separated from the male-bonded unit. When male alliances are critical to a group's survival, allied males may view intimate pair bonds with females as a source of tension that

divides a man's loyalties and threatens group cohesion (Low, 2001; Smuts, 1992). From the paired male's point of view, friendly relations between his mate and other males in a group may spark jealousy and suspicion. In this way male–female pair bonds can make horizontal group cohesion problematic for both partners if the partners are serving in the same unit.

Across many societies and time periods, women have been treated as spoils of war by warriors on the winning side (Keeley, 1997), and this can put unattached women who are not pair-bonded at risk. The link between military success and male reproductive success is also affirmed by civilian and military women who reward military prowess with sex and shame men who avoid military service (Goldstein, 2001). Organized military brothels as a resource for maintaining morale (Moon, 1997; Stiglmayer, 1994) also affirm the view of women as a sexual resource to which military men are entitled. Rather than (or in addition to) paying for sex, military men may pursue their unattached female colleagues. Some military women will reciprocate the attention by embracing the opportunities for promiscuity, which may include trading sex for favors and for privileged access to higher status men. Women who reject the attention may be assaulted.

Sexual assault promoted by the “women as spoils” view is more about sex and less about power than the “women as intruders” dynamic. Force is a means to an end rather than the primary goal. Officers who use rank to coerce subordinate women into unwanted sex are also enacting and validating this view of women as a sexual resource. The goal is not to drive the women away but to claim them as a perquisite of high rank.

A conception of military women as neither intruders nor a sexual resource for military men is the ungendered professionalism (Rosen et al., 2003) promoted by Morris (1996) as an alternative to the hypermasculinity of traditional military culture. Treating women as comrades-in-arms promotes a model of cooperation that downplays gender and should also discourage sexual assault. From an evolutionary perspective, the most promising analogue of this male–female cooperation that has a broad cross-cultural grounding is not the polite cooperation of professional colleagues but the solidarity of extended kinship groups. Incest taboos that forbid sex among members of the same family may also be generalized to more formal tribal subdivisions such as clans. Mutual interest in the survival and success of the clan can promote both vertical and horizontal cohesion that binds the primary group together among and across age and status cohorts. Women's propensity to bond with family members should also promote cohesion when this norm is dominant.

## MILITARY WOMEN'S EXPERIENCES: A PRELIMINARY SAMPLING

Our overview of how male and female sexual strategies may play out in a military context yields a host of predictions about likely associations. One



set of predictions links three normative views (women as intruders, sexual resources, or comrades) with the expected prevalence of different forms of male-on-female sexual assault and consensual heterosexual sex. The other links the sexual behaviors of military men and women with horizontal and vertical cohesion in their units. These hypothesized links are collected in Table 1.

Systematic data that would allow us to test these proposed connections are not yet available. A few studies provide fragments of the picture that suggest we are on the right track. For example, Rosen and colleagues (2003) measured group climate using the company as the unit of analysis. They found that unit-level differences were associated with differences in cohesion and attitudes toward spouses, a measure of respect for pair bonds with mates outside the unit. Sadler, Booth, and Doebbeling (2005) found that the severity of emotional trauma and physical impairment differed with the number of assailants and the number of rapes victims reported; in another study

**TABLE 1** Expected Associations Among Unit Norms, Sexual Behaviors, and Unit Cohesion

Sexual behavior	Expected impact of normative views of women on behavior pursued			Expected impact of behavior on cohesion		
	Intruders	Sexual resource	Colleague/comrade	Horizontal		
				Males	Mixed sex	Vertical Males
<b>Male sexual behaviors</b>						
Sexual assault						
Individual attack	▲	▲	▼		▼	
Collective attack	▲		▼	▲	▼	
Rank coercion		▲			▼	▼
Consensual						
Pair bond						
Within unit	▼	▲	▼	▼	▼	
Across ranks		▲	▼		▼	▼
Outside unit only		▲	▲	▲	▲	
Promiscuous						
Within unit	▲	▲	▼	▲	▼	
Outside unit		▲		▲	▼	
<b>Female sexual behaviors</b>						
Consensual						
Pair bond						
Within unit	▲	▲	▼	▼	▼	
Across ranks	▲	▲	▼		▼	▼
Outside unit			▲			
Promiscuous						
Multiple partner						
Within unit	▲	▲	▼	▲	▼	
Outside unit					▼	

Notes. ▲ = expected increase in attractiveness of behavior and in cohesion; ▼ = expected decrease in attractiveness of behavior and in cohesion.

(Sadler et al., 2003), many women reported choosing the sexual strategy of pairing to lessen their risk of MSA.

For this article, we have drawn on the naturalistic data of narratives to develop a preliminary typology of military women's experiences that fleshes out our framework. Our goal is to explore how the components of cultural norms and sexual behaviors by both men and women intersect in the experiences of military women. Our typology distinguishes among individual, dyadic, and collective encounters and discriminates among experiences that are physically forced upon women, those that the women are coerced into, and those that they choose.

### Physical Attack: Individual Assault and Gang Rape

A woman may be sexually assaulted by an individual attacker or by multiple attackers. Individual assaults that develop after a woman rejects a man's sexual advances fit the sexual resource conception. Gang rape and more physically violent individual attacks fit with the woman as intruder conception. The sexual resource view may also play a role, as norms of militarized masculinity may promote gang rapes as a bonding experience for primary groups (Wood, 2009) analogous to collective visits to prostitutes. Among women reporting one or more completed rapes during their military service, 14% had been gang-raped (Sadler et al., 2003, p. 266).

Sergeant Kayla Williams, who served in a military intelligence company, provided an example of an individual assault by a fellow soldier during a night shift in Iraq. Until this event occurred, Williams had felt that she had been accepted as a fellow soldier by the men in her unit (woman as comrade norm).

It's dark, but not so dark that I can't decipher at some point that Rivers' pants are open. That he's got one hand on his penis. And then suddenly, he's also got one hand on my arm. He's pulling me pretty firmly toward him, maneuvering my hand toward his crotch.

"What the fuck—"

I pull back hard, but Rivers is strong. He's still grabbing my arm, preventing me from leaving.

"No," I say. "No, no, no, no, no. Let me go. Let me the fuck go."

"What?" He is genuinely puzzled sounding. "Nobody has to know."  
(Williams, 2005, p. 207)

Rivers relents and apologizes the next day, acknowledging “I was totally out of line” (p. 208). In debating whether to report the incident, Williams questioned whether the other men would support her or Rivers. In the end, she spoke informally with a superior and Rivers was reassigned, but the event alienated Williams from most of her fellow soldiers.

Williams’s account makes clear that Rivers was hoping for consensual sex and was not trying to drive her away. After the attack, Williams did withdraw psychologically from her unit. She also let the other men believe (incorrectly) that she had pair bonded with a trusted male friend within her unit. Tracing the sequence in Table 1, Rivers categorized Williams as a sexual resource, consistent with individual sexual assault, which prompted Rivers to promote the appearance of a pair bond and damaged horizontal cohesion between Williams and the men in her unit.

The woman as intruder view is prominent in gang rape accounts, as exemplified by the experience of staff sergeant and decorated combat medic Sharon Mixon. Mixon reported being drugged and gang-raped by U.S. soldiers during Operation Desert Storm:

“I woke up face down on a cot. I was being held down. And there were six men taking turns raping me,” recalls Mixon. “They told me that if I told anybody that they would kill me. I went and told the [military police] anyway. And they told me the same thing.” (Leung, 2005)

Mixon’s rapists told her that she should have “expected” such treatment from them. Solidarity among the rapists and the military police suggests strong horizontal cohesion among the men. The threats to kill her indicate that she was viewed primarily as an intruder who threatened the integrity of the male-bonded group (see Table 1). It appears that in their minds, this perceived threat outweighed the value she was contributing as a combat medic.

### Rank-Based Coercion

Accounts of rank-based coercion (also called “command rape”; Corbett, 2007) suggest it is an individual form of MSA in line with viewing women as a sexual resource. Soviet veteran Vera Ivanovna Malakhova reported how the power of rank constrained her response to unwanted advances by a commissar: “I remember that I was shaking all over. If things had been different I would have slapped him in the face. But here I couldn’t, he was my superior” (Engel, 1999, p. 144).

Army Specialist Suzanne Swift, who went AWOL rather than return for another tour of duty in Iraq, attributed her PTSD to the combined stresses of combat and command rape. Swift was coerced into sexual relations with her squad leader that lasted 4 months (Corbett, 2007). In a study by Sadler and

colleagues (2003, p. 267), 40% of women veterans who had been raped said that they did not report the assault because the perpetrator was a ranking officer in their chain of command.

Command rape should heighten tensions in the hierarchy between the rapist and subordinate men who may view the woman as a comrade and see a superior abusing one of their peers. However, other soldiers may also interpret the woman's behavior as that of a "slut" who is seeking advantage via a consensual dyadic relationship. The latter interpretation should damage horizontal cohesion between men and women in the unit. Either interpretation should damage vertical cohesion (see Table 1).

### Consensual Sex

Consensual sex can be dyadic or collective and fits the women as sexual resource view. Women who get sexually involved with male soldiers may view the men as a sexual resource, may be trading sex for other benefits such as protection or special treatment, or both. This category includes all voluntary sexual relationships.

The "mobile field wives" attached to Soviet officers at the front during World War II provides an example of dyadic relations that offered benefits to both parties. As Vera Ivanovna Malakhova recalled, "Sexual relations occurred at the front: legitimate, illegitimate, it existed . . . it degraded people and elevated people and saved their lives" (Engel, 1999, p. 146). Women like Malakhova who remained uninvolved resented the field wives as contributing to the image of frontline women as "whores": "We conducted ourselves honorably and disliked the PPZh [the Russian acronym for mobile field wives]. They had privileges" (Engel, 1999, p. 146).

According to many military women, "slut" is a slur used liberally by U.S. military men, often with little connection to actual sexual behavior. "You're a bitch, a slut or a dyke—or you're married, but even if you're married, you're still probably one of the three" (Myers, 2009). However, some women do choose sexual promiscuity as a way to connect with multiple men in or outside their units. Williams (2005, p. 18) reported, "Take this one girl. I heard from reliable sources in Iraq that she gave head to every guy in her unit. . . . I heard it from guys who were there . . . this particular girl got caught in the act . . . More than once." Williams and other military women who wish to be viewed as fellow soldiers and comrades resent sexually promiscuous women who make it tougher "for the rest of us females to get our work done without having guys insinuate that blow jobs was part of our Advanced Individual Training" (p. 19). Although collective sex may heighten horizontal cohesion among the men, it creates friction among military women and can damage horizontal cohesion among men and women

in mixed units because of unwelcome assumptions that make it harder for women to be accepted as professional colleagues.

Along with sexual pleasure, military women may use sex to gain acceptance, attention, and, according to Williams (2005), lots of special favors that “could make your load while deployed a whole lot lighter” (p. 20). Military women may seek out protective arrangements with men via sexual relationships. A recent study of veterans found that 27% of women reported getting involved in a relationship with a man as a defensive strategy against sexual harassment and assault (Sadler et al., 2003, p. 266). This protection is liable to be most effective when pairing with either a man within the same unit or an officer in the direct line of command who has power over the other men from whom the women seeks protection. The former choice should damage horizontal cohesion among males, and the latter choice should damage vertical cohesion (see Table 1). Both should damage horizontal cohesion among men and women in mixed units.

### Collegial Nonsexual

Collegial nonsexual relationships among men and women are what Rosen and colleagues (2003) called “ungendered professionalism.” Instead of being viewed as a sex resource or intruders, women are viewed by the men as comrades-in-arms. A welcome counterpoint to the stories of sexual assault are the narratives of military women who work closely and effectively with men. Marine Corps Lance Corporal Chrissy DeCaprio gained professional acceptance as a fellow Marine by demonstrating her high level of competence.

She started as a gunner and later was promoted to team leader. The artillery Marines weren't used to working with women because their military occupational specialty is closed to females. . . . One male gunner thought he was the best shot . . . until DeCaprio appeared on the scene and showed him up. (Holmstedt, 2007, p. 143)

While she was serving at the front during World War II, Malakhova also had many positive experiences with men in her unit. Although officers harassed and assaulted her, she felt safe among the rank-and-file male soldiers, even when sleeping among them in the trenches. Soldiers had a “chaste” attitude to the women, she concluded. “To them, we were all ‘little sister,’ ” she said (Engel, 1999, pp. 143–144). As sisters, servicewomen were off limits sexually, as sex would violate an incest taboo. As a male Soviet veteran put it: “We did not look upon them as women . . . You don't marry your own sister, do you?” (Engel, 1999, pp. 143–144).

## CONCLUSION

The evolutionary lens focused our attention on the interplay between the imperatives of military effectiveness and the sometimes compatible, sometimes clashing strategies of military men and women. Our evolutionary framework suggests that sexual tensions per se cannot be erased because they are structural, based on thousands of years of natural and sexual selection. Yet male sexual coercion of women in the military varies greatly in different circumstances and contexts, so it is *not* an “immutable fact of nature” (Drea & Wallen, 2003; Geary, 1998; Goldstein, 2001; Gowaty, 2003; Smuts, 1992, p. 24). Many women in the military are sexually assaulted, and many are not. A minority of men will rape if given the opportunity, and the majority will not. Merrill, Thomsen, Gold, and Milner (2001) reported that 10%–11% of Navy recruits had raped someone before enlisting. In a civilian context, rapists are considered criminals at high risk of reoffending, especially if they are confident of getting away with the crime. The same should be true in the military. Along with the impact of unit norms and leadership, the presence of an experienced rapist in a unit should increase the risk of MSA. Hence, the prevalence of assaults should exhibit clusters and concentrations rather than be distributed evenly.

The identification of sexualized workplaces as a risk factor for MSA highlights the generalized impact of a salient normative view of women as a sexual resource (Sadler et al., 2003). Complete abstinence from heterosexual activity is probably the strongest signal that a woman does not want to be viewed by men as a potential sexual partner. However, as Williams (2005) commented, “Sex is not specifically prohibited for deployed soldiers . . . So get real. The Army is not a monastery” (p. 21).

A non-fraternization policy applied at the squad or platoon level may be a realistic way to promote a brother–sister model of professional cooperation within one’s primary unit without creating impractical restrictions on consensual sex. Declaring within-unit sex off limits in the interest of unit cohesion is analogous to non-fraternization policies that protect the integrity of command by forbidding relations between officers and enlisted personnel. As Morris (1996, p. 756) noted, the definition of *unit* should take into account both what size of group operates as the primary unit of cohesion and the reality that the smaller the number of colleagues who are included in the incest taboo, the more likely the policy will be observed. Just as non-fraternization policies are not completely successful in preventing relations between officers and enlisted, incest prohibitions will not be invariably honored. However, positive brother–sister norms such as those reported by Malakhova on the front lines in World War II show that this approach can be embraced by ordinary soldiers.

Much of the literature on war and gender focuses on the power of male alliances and the androcentric military organization but fails to recognize

female autonomy and choice. Gendered dynamics are just that—*gendered*. Individual behavior and group dynamics involve *both* men and women who base their decisions on the relative attractiveness (or degrees of unattractiveness) of available choices within varying contexts. Norms, policies, and practices can affect how men who are prone to rape assess the possible career risks of assaulting fellow soldiers. They can affect the likelihood that military men will be vigilant against all threats to their fellow soldiers, including the threat of MSA. Based on evolutionary logic, traditional military culture, existing studies (e.g., Morris, 1996; Rosen et al., 2003), and personal narratives (e.g., Engel, 1999; Williams, 2005), we believe that the prevalence of different forms of MSA should covary with different group norms, contexts, and individual strategies.

A growing literature provides some evidence of a varying prevalence of MSA but at a very poor level of resolution—branches of service (Morris, 1996) or different Reserve components (Street, Stafford, Mahan, & Hendricks, 2008). To systematically test for the predicted associations summarized in Table 1 at a finer level of resolution, we need to measure the prevalence of the three normative views as aspects of culture/climate at the company level, as Rosen and colleagues (2003) did. We also need measures of horizontal and vertical cohesion, data on different forms of sexual assault and on sexual behavior by both men and women at the unit level, and information about the enforcement of policies regarding fraternization and professional relationships. Policy implications will flow from regularities in such data. Demonstrated impacts on vertical and horizontal cohesion can serve as a proxy for the relevance of MSA and consensual sex to military effectiveness.

In civilian society, the threat of retaliation from male relatives can be a potent deterrent to rape. In the military, where women are not surrounded by kin, military men could help deter rape by promoting the brother–sister model within their own immediate unit. This can encourage brotherly vigilance against threats to their military “sisters” from outsiders, and evoking the incest taboo can deter advances from other soldiers within the unit. Unfortunately, brotherly vigilance may not deter attacks by men who are in the direct chain of command for all the men and women in the unit. Such command rape can be especially devastating to a soldier’s psychological health and ability to function effectively because of the betrayal involved (Birrell & Freyd, 2006) and can also damage trust in leadership by other soldiers in the unit who know about the attacks.

The role of men and women in leadership positions in establishing and enforcing appropriate norms is critical. The entanglement between gender dynamics and military organization makes the actions of officers particularly important in signaling what behaviors are acceptable. One study found that when officers permit others in their unit to make sexually demeaning comments or gestures in the presence of a military woman, rape is 4 times more likely to occur than when they do not (Sadler et al., 2003, p. 269). Far too

many officers are using their rank either as a weapon of sexual coercion or to protect soldiers under their command who are attacking their colleagues. Rooting out this problem will require a transformation of military norms and practices beyond what rank-and-file military men and women can accomplish on their own. Cultural interventions that take into account deep-seated and long-standing conceptions of women as intruders or sexual resources are needed to alter an environment in which sexual assault includes not only individual acts of coercion but also group-based responses to perceived threats to traditional military structures.

Although doubts persist about whether it is wise to include women in combat units (e.g., Browne, 2007), the reality of gender-integrated combat support units on the ground in Iraq and Afghanistan makes it clear that military women have become essential to combat activities. “Iraq has advanced the cause of full integration for women in the Army by leaps and bounds,” states Army Colonel Peter R. Mansoor (Alvarez, 2009). Thoughtful theory building, focused data collection, and the implementation of sensible policy recommendations informed by theory and data should help reduce the prevalence of sexual assaults that threaten the cohesion and effectiveness of the gender-integrated units on which the U.S. military increasingly depends.

## NOTE

1. The application of evolutionary theory to social behavior continues to provoke lively debate. Although misconceptions persist, most scholars who follow these debates closely have moved beyond “straw man” characterizations toward more substantive discussion. Increased attention to gene-environment interactions has made it clear that neither biological nor environmental factors should be treated as deterministic (see Hrdy, 2000; Hubbard, 1990; Thornhill & Palmer, 2000, for contrasting perspectives). Claims that evolutionary theory is untestable have also become less tenable as studies testing hypotheses derived from evolutionary thinking accumulate (e.g., Buller, 2005; Gowaty, 1997; Wilson, Daly, & Scheib, 1997). Buss and Malamuth (1996) provided a useful integration between feminist and evolutionary perspectives.

## REFERENCES

- Alvarez, L. (2009, August 15). G.I. Jane breaks the combat barrier. *The New York Times*. Retrieved from <http://www.nytimes.com/2009/08/16/us/16women.html>
- Birrell, P. J., & Freyd, J. J. (2006). Betrayal trauma: Relational models of harm and healing. *Journal of Trauma Practice*, 5(1), 49–63.
- Bourke, J. (2007). *Rape: Sex, violence, history*. Berkeley, CA: Counterpoint.
- Brightman, R. (1996). The sexual division of foraging labor: Biology, taboo, and gender politics. *Comparative Studies in Society and History*, 38, 687–729.
- Browne, K. (2007). *Co-ed combat: The new evidence that women should not fight the nation's wars*. New York, NY: Penguin.



- Buller, D. J. (2005). *Adapting minds: Evolutionary psychology and the persistent quest for human nature*. Cambridge, MA: MIT Press.
- Buss, D. M., & Malamuth, N. M. (1996). *Sex, power, conflict: Evolutionary and feminist perspectives*. Oxford, England: Oxford University Press.
- Campbell, A. (2002). *A mind of her own: The evolutionary psychology of women*. Oxford, England: Oxford University Press.
- Chagnon, N. A. (1988, February 26). Life histories, blood revenge, and warfare in a tribal population. *Science*, *239*, 985–992.
- Corbett, S. (2007, March 18). The women's war. *The New York Times*. Retrieved from <http://www.nytimes.com/2007/03/18/magazine/18cover.html?ref=magazine>
- Daly, M., & Wilson, M. (1978). *Sex, evolution and behaviour*. Boston, MA: Willard Grant.
- De Pauw, L. G. (1998). *Battle cries and lullabies: Women in war from prehistory to the present*. Norman: University of Oklahoma Press.
- Drea, C. M., & Wallen, K. (2003). Female sexuality and the myth of male control. In C. B. Travis (Ed.), *Evolution, gender, and rape* (pp. 29–60). Cambridge, MA: MIT Press.
- Engel, B. A. (1999). The womanly face of war: Soviet women remember World War II. In N. A. Dombrowski (Ed.), *Women and war in the twentieth century: Enlisted with or without consent* (pp. 138–161). New York, NY: Garland.
- Enloe, C. H. (2000). *Maneuvers: The international politics of militarizing women's lives*. Berkeley: University of California Press.
- Fitzgerald, L. F., Drasgow, F., & Magley, V. J. (1999). Sexual harassment in the armed forces: A test of an integrated model. *Military Psychology*, *11*, 329–343.
- Friedman, M. J. (2006). Posttraumatic stress disorder among military returnees from Afghanistan and Iraq. *American Journal of Psychiatry*, *163*, 586–593.
- Geary, D. C. (1998). *Male, female: The evolution of human sex differences*. Washington, DC: American Psychological Association.
- Goldstein, J. S. (2001). *War and gender: How gender shapes the war system and vice versa*. Cambridge, England: Cambridge University Press.
- Gottschall, J. (2004). Explaining wartime rape. *Journal of Sex Research*, *41*(2), 129–136.
- Gowaty, P. A. (1997). *Feminism and evolutionary biology: Boundaries, intersections, and frontiers*. New York, NY: Chapman & Hall.
- Gowaty, P. A. (2003). Power asymmetries between the sexes, mate preferences, and components of fitness. In C. B. Travis (Ed.), *Evolution, gender, and rape* (pp. 61–86). Cambridge, MA: MIT Press.
- Greenbaum, C. W. (1979). The small group under the gun: Uses of small groups in battle conditions. *Journal of Applied Behavioral Science*, *15*, 392–405.
- Griffith, J. (1988). Measurement of group cohesion in US army units. *Basic and Applied Social Psychology*, *9*(2), 149–171.
- Harned, M. S., Ormerod, A. J., Palmieri, P. A., Collinsworth, L. L., & Reed, M. (2002). Sexual assault and other types of sexual harassment by workplace personnel: A comparison of antecedents and consequences. *Journal of Occupational Health Psychology*, *7*(2), 174–188.
- Henry, N., Ward, T., & Hirshberg, M. (2004). A multifactorial model of wartime rape. *Aggression and Violent Behavior*, *9*, 535–562.

- Holmstedt, K. A. (2007). *Band of sisters: American women at war in Iraq*. Mechanicsburg, PA: Stackpole Books.
- Hrdy, S. B. (2000). *Mother nature: Maternal instincts and how they shape the human species*. New York, NY: Ballantine Books.
- Hrdy, S. B. (2009). *Mothers and others: The evolutionary origins of mutual understanding*. Cambridge, MA: Belknap Press.
- Hubbard, R. (1990). *The politics of women's biology*. New Brunswick, NJ: Rutgers University Press.
- Iasiello, L. V., Wasell, M., Arias, I., Carpenter, A. M., Dunbar, S. K. G., Grant, J. M., . . . Swiatek, S. M. (2009, December). *Report of the Defense Task Force on Sexual Assault in the Military Services*. Retrieved from [http://www.dtic.mil/dtfsams/docs/11\\_09docs/DTFSSAMS-Rept\\_Dec09.pdf](http://www.dtic.mil/dtfsams/docs/11_09docs/DTFSSAMS-Rept_Dec09.pdf)
- Kang, H., Dalager, N., Mahan, C., & Ishii, E. (2005). The role of sexual assault on the risk of PTSD among Gulf War veterans. *Annals of Epidemiology*, *15*, 191–195.
- Keeley, L. H. (1997). *War before civilization: The myth of the peaceful savage*. New York, NY: Oxford University Press.
- Kimerling, R., Gima, K., Smith, M. W., Street, A., & Frayne, S. (2007). The Veterans Health Administration and military sexual trauma. *American Journal of Public Health*, *97*, 2160–2166.
- LeBlanc, S. A. (1999). *Prehistoric warfare in the American southwest*. Salt Lake City: University of Utah Press.
- Leung, R. (2005, February 20). Army rape accuser speaks out. *CBS/60 Minutes*. Retrieved from <http://www.cbsnews.com/stories/2005/02/17/60minutes/main674791.shtml>
- Littlewood, R. (1997). Military rape. *Anthropology Today*, *13*(2), 7–16.
- Low, B. S. (2001). *Why sex matters: A Darwinian look at human behavior*. Princeton, NJ: Princeton University Press.
- Marshall, S. L. A. (1947). *Men against fire: The problem of battle command in future war*. Oxford, England: Infantry Journal Press.
- Merrill, L. L., Thomsen, C. J., Gold, S. R., & Milner, J. S. (2001). Childhood abuse and premilitary sexual assault in male navy recruits. *Journal of Consulting and Clinical Psychology*, *69*, 252–261.
- Moon, K. H. S. (1997). *Sex among allies: Military prostitution in US-Korea relations*. New York, NY: Columbia University Press.
- Morris, M. (1996). By force of arms: Rape, war, and military culture. *Duke Law Journal*, *44*, 651–781.
- Murdoch, M., Polusny, M. A., Hodges, J., & O'Brien, N. (2004). Prevalence of in-service and post-service sexual assault among combat and noncombat veterans applying for Department of Veterans Affairs posttraumatic stress disorder disability benefits. *Military Medicine*, *169*, 392–395.
- Myers, S. L. (2009, August 16). Living and fighting alongside men, and fitting in. *The New York Times*. Retrieved from <http://www.nytimes.com/2009/08/17/us/17women.html>
- Rosen, L. N., Durand, D. B., Bliese, P. D., Halverson, R. R., Rothberg, J. M., & Harrison, N. L. (1996). Cohesion and readiness in gender-integrated combat

- service support units: The impact of acceptance of women and gender ratio. *Armed Forces & Society*, 22, 537–553.
- Rosen, L. N., Knudson, K. H., & Fancher, P. (2003). Cohesion and the culture of hypermasculinity in US army units. *Armed Forces & Society*, 29, 325–351.
- Sadler, A. G., Booth, B. M., Cook, B. L., & Doebbeling, B. N. (2003). Factors associated with women's risk of rape in the military environment. *American Journal of Industrial Medicine*, 43(3), 262–273.
- Sadler, A. G., Booth, B. M., & Doebbeling, B. N. (2005). Gang and multiple rapes during military service: Health consequences and health care. *Journal of the American Medical Women's Association*, 60(1), 33–41.
- Seeley, E. A., Gardner, W. L., Pennington, G., & Gabriel, S. (2003). Circle of friends or members of a group? Sex differences in relational and collective attachment to groups. *Group Processes & Intergroup Relations*, 6(3), 251–263.
- Shils, E. A., & Janowitz, M. (1948). Cohesion and disintegration in the Wehrmacht in World War II. *Public Opinion Quarterly*, 12, 280–315.
- Smuts, B. (1992). Male aggression against women: An evolutionary perspective. *Human Nature*, 3(1), 1–44.
- Sosis, R., Kress, H. C., & Boster, J. S. (2007). Scars for war: Evaluating alternative signaling explanations for cross-cultural variance in ritual costs. *Evolution and Human Behavior*, 28(4), 234–247.
- Stiglmeier, A. (1994). *Mass rape: The war against women in Bosnia-Herzegovina*. Lincoln: University of Nebraska Press.
- Street, A. E., Stafford, J., Mahan, C. M., & Hendricks, A. (2008). Sexual harassment and assault experienced by reservists during military service: Prevalence and health correlates. *Journal of Rehabilitation Research and Development*, 45, 409–420.
- Suris, A., & Lind, L. (2008). Military sexual trauma: A review of prevalence and associated health consequences in veterans. *Trauma, Violence, & Abuse*, 9(4), 250–269.
- Thornhill, R., & Palmer, C. T. (2000). *A natural history of rape: Biological bases of sexual coercion*. Cambridge, MA: MIT Press.
- Trivers, R. L. (1972). Parental investment and sexual selection. In B. Campbell (Ed.), *Sexual selection and the descent of man 1871-1971* (pp. 136–179). Chicago, IL: Aldine.
- Trivers, R. L. (1974). Parent-offspring conflict. *American Zoologist*, 14(1), 249–264.
- Van Vugt, M., De Cremer, D., & Janssen, D. P. (2007). Gender differences in cooperation and competition: The male-warrior hypothesis. *Psychological Science*, 18, 19–23.
- Wildschut, T., Pinter, B., Vevea, J. L., Insko, C. A., & Schopler, J. (2003). Beyond the group mind: A quantitative review of the interindividual-intergroup discontinuity effect. *Psychological Bulletin*, 129, 698–722.
- Williams, K. (2005). *Love my rifle more than you: Young and female in the US army*. New York, NY: Norton.
- Wilson, M., Daly, M., & Scheib, J. E. (1997). Femicide: An evolutionary psychological perspective. In P. A. Gowaty (Ed.), *Feminism and evolutionary biology: Boundaries, intersections, and frontiers* (pp. 431–465). New York, NY: Chapman & Hall.

- Wood, E. J. (2009). Armed groups and sexual violence: When is wartime rape rare? *Politics & Society*, 37(1), 131–161.
- Yaeger, D., Himmelfarb, N., Cammack, A., & Mintz, J. (2006). DSM-IV diagnosed posttraumatic stress disorder in women veterans with and without military sexual trauma. *Journal of General Internal Medicine*, 21, 65–69.
- Zihlman, A. L. (1981). Women as shapers of the human adaptation. In F. Dahlberg (Ed.), *Woman the gatherer* (pp. 75–120). New Haven, CT: Yale University Press.