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**Women in the Infantry --
The Effect on the Moral Domain.**

**A Monograph
by
Major George J. Woods
Infantry**



**School of Advanced Military Studies
United States Army Command and General Staff College
Fort Leavenworth, Kansas**

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Abstract

WOMEN IN THE INFANTRY - THE EFFECT ON THE MORAL DOMAIN

by MAJ George J. Woods, III, U.S. Army, 53 pages.

This monograph examines the effect of allowing women into the infantry in the U.S. Army. It focuses on aspects of the moral domain - cohesion, bonding, morale and stress. It attempts to answer the question: Will small level infantry unit (i.e. crew, team, section, squad and platoon) cohesion be affected by the introduction of women into the infantry ranks?

The monograph first establishes the nature of infantry combat and the importance of the moral domain in motivating and sustaining the infantryman in battle. The monograph then examines two psychological phenomena in the presentation of two theoretical frameworks to understand the group dynamics of primarily all-male groups. The first phenomenon is male bonding. The second phenomenon is the dynamics of groups towards "tokens". "Tokens" are members of a group who have physically recognizable traits and who make up less than fifteen percent of the group. Finally, the paper reviews the scientific, historical, and anecdotal evidence supporting or refuting the theories.

The monograph concludes that, although the evidence is inconclusive, there is sufficient evidence to approach the decision of allowing women to enter the infantry ranks cautiously. Sexual harassment problems that have occurred over the last fifteen years in integrating women into the military may support predictions of the theoretical frameworks explored in the body of the monograph.

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Introduction

The appropriate roles for women in the armed forces of nations has been revisited throughout the years. The issue is whether to open combat arms duties to women. Many nations, particularly NATO nations, have dealt with this problem in various ways. The issue in the United States has picked up considerable momentum after recent conflicts in Panama and in the Persian Gulf, two conflicts in which women soldiers participated in a variety of roles. Approximately 800 women participated in Operation Just Cause while 26,000 women participated in Operation Desert Storm.¹

Recently, Congress reviewed the combat exclusion law preventing assignment of women to jobs in combat aircraft and on combat ships. "The FY 92 Defense Authorization Bill repealed the statutory limitation for the Navy and Air Force female members to fly combat aircraft".² Congress will not mandate the services to assign women to combat positions. However, the law requested the President organize a commission to further explore the issue. As Congresswoman Patricia Schroeder said, "it would force the services to stop using the excuse that the law is the only thing restricting the role of women."³ Combat exclusions did not apply to the Army's exclusion of women from combat positions, but Army policy for years has been consistent with the other services.

Current Army policy states that women cannot serve in "specialties, positions, or units (battalion size or smaller) which are assigned a routine mission to engage in direct combat, or which collocate routinely with units assigned a direct combat mission".⁴ The Army determines which assignments women receive through the Direct Combat Position Coding (DCPC) System. The DCPC system classifies each position based on probability of direct combat. It uses three criteria: the duties of the position and area of concentration or military occupational specialty; unit mission; and routine collocation.⁵ The intent of the policy is designed to limit high casualty risk, but it does not prevent women from exposure to combat or from becoming casualties.

Army Regulation 600-13, Army Policy for the Assignment of Female Soldiers, states that "female soldiers will be provided full and equal opportunity to pursue careers in the military."⁶ As of June 1992, women comprise 11.8 percent of the active Army, 7.3 percent of the Army National Guard, and 20.8 percent of the Army Reserve's personnel strengths. Over ninety percent of all Army career fields and fifty-one percent of Army positions are open to women.⁷ Although these numbers may appear to provide women significant career opportunities in the Army, reality is different. Women's, as well as some minorities, promotion rates have lagged behind their male counterparts. As one reporter put it:

By comparing the career progression percentages of the men and women, it becomes obvious that, as rank increases, the pool of women eligible for promotion decreases significantly in relation to the pool of promotable men. Although the GAO statistics reveal promotion rates for women only marginally lower than the promotion rates for men, they do not take into account the progressively dwindling pool of promotable officers among women. The picture is not as rosy as the GAO report paints it. The US military is one of the premier employers today for women and minorities seeking educational and career advancement opportunities. But full equality of opportunity has not yet arrived, and it does a disservice to women and minorities to report otherwise.⁸

There are indicators in all the services that equal opportunity is still lacking. In another study, the Air Force promotion rates for women and minorities lagged fifteen to eighteen percent behind promotion rates in the service as a whole.⁹ Women make up about ten percent of the force in the Department of Defense. There are 2092 Flag officers. Only eighteen of those positions are filled by women. To reflect ten percent of the population there should be 210 women flag officers.¹⁰ Many believe that women's promotions are lower because they are ineligible to serve in combat arms or key positions that Army promotion boards look upon favorably for promotion. They perceive career opportunities to be unfair because women already share the same risks as men in combat, but are not afforded the same career benefits as men.

Many believe the nature of the battlefield has changed and the DCPC system and Army policy do not account for this. As Charles Moskos, a highly regarded military sociologist from Northwestern University, puts it:

DCPC is based on a linear concept of warfare...the coding is hard to reconcile with checkerboard combat theaters, however. Two of the twenty-three Americans killed in the Panama operation were in noncombat MOS's- a medic and a military policeman- as were thirty-six of the 324 wounded. One of the wounded was a printing and bindery specialist.¹¹

In Desert Storm, four women were killed in action. Three of these women died as a result of a SCUD attack in an area well to the rear of the front lines. The two women held as prisoners of war were both assigned to positions that had a low probability of becoming a casualty or prisoner of war. Sharing the risks of death in defense of one's country without sharing in the rewards and benefits is unfair. Equal opportunity for all is a core American value. Not affording women soldiers the career opportunities afforded men in combat arms positions is wrong and provides a compelling reason to reconsider Army policy. However, equal opportunity is but one side of the issue.

The other responsibility the Army has to the nation and to its combat soldiers is to protect American interests and to defeat the nation's enemies when called upon to do so. With virtually no exceptions, warfare has been a male preserve for thousands of years. Since man has organized groups to perform necessary functions to ensure survival, men in every tribe, village and nation have been the warriors. One question on which many arguments focus is whether women can make effective combat soldiers. Although this paper may look at some of the data regarding women's ability to be effective combat soldiers, it is not the primary focus. This paper focuses on addressing whether or not women have an effect on the psychological inner workings of the combat unit. Would assigning women to a combat unit have a disruptive impact on unit effectiveness? The purpose of this paper is not to examine the impact on unit effectiveness of assigning women to any combat arms unit. Rather, this paper will focus on exploring possible impacts women will have on the effectiveness of *infantry* units. The issue is best summed

up by one author's statement, "the intent is not to shield women from combat, but to shield warriors from defeat."¹²

To address the main issue, this author intends to develop the argument by first making an assertion that infantry combat is not likely to change in the future. The author will look at the evolution of combat over the last one hundred years or so to show how little its basic nature has changed. Exploring the evolution of ground combat through personal accounts to understand how little infantry combat has changed will make this clear.

Second, the paper focuses on the importance of the psychological aspects of war - the moral domain - to stress the importance of looking at this aspect of war. Factors such as cohesion, bonding, morale, and stress are most important in ground combat. Citing classic thinking from well-known authors such as du Picq, S.L.A. Marshall, Lord Moran and Anthony Kellett will establish its importance on deciding the victor on the battlefield.

Third, the author will focus on two theoretical frameworks that explain the phenomenon of mixed-gender dynamics in the small group in roles traditionally performed by the male, the warrior. The first framework investigates the biological, anthropological, and sociological causes of human behavior in groups. The second framework focuses primarily on the psychological dynamics of mixed-gender groups.

Fourth, given the theoretical frameworks, the paper will focus on what evidence exists to support these theories. The paper will investigate scientific, historical, and anecdotal data that confirm or refute the theoretical frameworks. Additionally, the author will analyze other countries' experiences, given what is available, to make some assessment on the results obtained by nations that have opened infantry positions to women.

Finally, the author will analyze the evidence to answer the questions: Will allowing women to hold infantry assignments affect combat effectiveness at the small level infantry unit? What are the implications? Can the United States Army have both equal opportunity and combat effectiveness by allowing women in the infantry?

Before exploring and understanding the effect women may have if they are allowed into infantry units in the Army, it is critical to understand the world of the infantryman in combat. The reader must gain some insight into the battlefield conditions in which infantrymen must fight and survive. The reader must also understand the central purpose of ground combat.

The Infantryman's World in Combat

Carl von Clausewitz, considered by many to be one of the greatest military thinkers, spoke of armies being an instrument of political policy. The point of war is to get another nation to do another country's will. Force or the threat of a credible force compels the opponent to do the other's will. Wars are decided by one or numerous engagements. The engagement is a *trial of strength*, both physical and moral.¹³ Whoever has the greater sum of both left at the end is the victor.¹⁴

What does this strength look and feel like? What does it take either physically or mentally to be stronger than the opponent to cause their defeat? George C. Marshall compiled numerous accounts of tactical actions in World War I that describe the psychological demands on the warrior.

And so, at the appointed hour, this brigade of 6,000 high-hearted and determined men stood up and at the word of command fixed their bayonets, shouldered their rifles, and marched forward in quick time and in step to assault an entrenched enemy...as the leading wave approached the German position the French artillery lifted and the enemy's artillery, machineguns and rifles opened with a concerted roar. The leading wave went down, the others surging forward were literally blown apart...the entire brigade, nailed to the ground by a merciless fire, could do nothing but wait for nightfall. Units were reorganized...[for] resumption of the attack the next day. The events of the day before were repeated. Losses were more than fifty percent and included nearly all the officers.¹⁵

World War I was to be the war to end all wars, but it was not. Not even a quarter of a century later the world was at war again. The technology had changed and supposedly so had the physical and psychological demands on the infantryman. The demands had not changed according to E.B. Sledge from his book entitled With the Old Breed. Sledge described what it was like to participate in the assaults on Pelelieu and

Okinawa in World War II in the Pacific. His descriptions point out the physical demands of the warrior fighting offensive warfare at the lowest level.

To lighten their loads, the four carriers had put all of their personal equipment aside except for a rifle or carbine over their shoulders. Each held a handle of the stretcher in one hand and stretched out the other arm for balance. Their shoulders were stooped with the weight of the stretcher. Four helmeted heads hung low like four beasts of burden being flogged. Soaked with rain and spattered with mud, the dark green dungarees hung forlornly on the men. The casualty lay inert on the narrow canvas stretcher, his life in the hands of the struggling four. To our dismay, the two carriers in the rear got hit by a burst of fire. Each loosened his grip on the stretcher. Their knees buckled, and they fell over backwards onto the muddy ground...the two Marines at the other end of the stretcher threw it down, spun around, and grabbed the stretcher casualty between them. Then each supported a wounded carrier with his other arm. As we cheered, all five assisted one another and limped and hobbled into the cover of the bushes, bullets still kicking up mud all around them.¹⁶

The harsh environment of the Pacific also took a psychological toll on the infantrymen.

Okinawa's mud drove us to a state of frustration and exasperation bordering on rage. It can be appreciated only by someone who has experienced it.¹⁷ Most men finally came to the state where they just stood stoically immobile with a resigned expression when halted and waited to move out. The cursing and outbursts of rage didn't seem to help, although no one was above it when goaded to the point of desperation and fatigue with halting and moving, slipping and sliding, and falling in the mud. Mud didn't just interfere with vehicles. It exhausted the man on foot who was expected to keep on where wheels or treaded vehicles couldn't move.¹⁸

Although the terrain differed from that in the Pacific theater of war, the nature of combat differed little in Europe. George Wilson's book, If You Survive, describes his experiences in World War II from D-Day to V-E day. He describes two things of interest to this paper. First, he talks of the importance of small groups on the battlefield. Numerous accounts make it obvious to the reader that units do not win battles, remnants of units win them.¹⁹ Second, he explains in vivid detail the physical requirements of the battlefield. He makes the reader understand the fatigue, the exhaustion, and the hunger that were common to the infantryman's life.

Clay Blair's book, The Forgotten War, about the United States' involvement in the Korean War echoes Wilson's experiences. The brutality, the exhaustion, and the filth of

the infantryman's world changed little in the five years since Wilson stopped fighting on the European continent. Although the United States possessed atomic weapons which were supposed to make ground combat for American forces obsolete, the United States found itself fighting a tenuous, vicious campaign against North Korean and Chinese armies. The final stages of the war, along what is now the Demilitarized Zone, even began to remind military historians of the stalemate of World War I. Little had changed in the nature of combat for the infantryman.

A 1986 study conducted by the Combined Arms Center at Fort Leavenworth, Kansas, came to the conclusion that "technological advances will not, however, eliminate the requirements for a great deal of strenuous human activity in order to perform many of the tasks associated with ground combat forces."²⁰ Nancy Goldman's book, Female Soldiers - Combatants or Noncombatants?, came to a similar conclusion. "Strength, speed, power and endurance. Few would deny that these physical attributes are essential to the soldier or marine in ground combat. Closing with the enemy and destroying him is a very physical endeavor and modern technology has not changed it at all - nor is it likely to."²¹

John Keegan, the noted author of The Face of Battle, reasons that the future battlefield will become a more deadly and lethal place. He uses historical trends on the battlefield to make his point. First, battles have shown a trend towards becoming longer. Battle is continuous, infantry soldiers are now required to fight both day and night. These continuous operations expose the infantryman to death more frequently. Second, battlefields contain more "objective dangers", more systems using different means, that prove lethal. He said the dangers were particularly intense on the front-line rather than more uniformly dispersed over the entire area of operation. Consequently, infantryman are exposed to more powerful and versatile systems on the battlefield. Third, because of the heavier reliance on mechanization, front-line soldiers in particular are more susceptible to

accidental death. Accidents can be fratricide, unintended explosions or firings from weapons, or collisions of mechanical vehicles.²²

Not only will the physical and psychological demands increase in future wars, but so will the importance of the infantry on the future battlefield. According to John English, who wrote in On Infantry, "the verdict of this study is that infantry has played a more significant role in twentieth-century warfare than has hitherto generally been realized and that foot soldiers will likely continue to occupy an extremely important place in any future conflict."²³ His views also support George Wilson's experiences in World War II. Small groups of infantrymen on the battlefield will play an increasing role too. "The decentralization of tactical control forced on land forces has been one of the most significant features of modern war. In the confused and often chaotic battlefield environment of today, only the smallest groups are likely to keep together, particularly during critical moments."²⁴

The main point of this discussion on the increasing demands for strength on the battlefield is to gain an appreciation of the future of land combat. Instead of getting easier, technology seems to be making the battlefield a more psychologically demanding environment while it has had little or no impact on the physical requirements of conducting war for the infantryman. Because of the lethality of weapons, for their own protection units are becoming more dispersed on the battlefield. Consequently, there is increased reliance on the small unit leader to remain an instrument of policy in spite of being even more isolated from the larger unit. The isolation of small groups of infantrymen fighting on the battlefield also requires a thorough understanding of the psychological factors in the dynamics of small group interaction. What motivates men to fight? How do men behave in groups? It is critical to gain insight into the inner workings of the warriors and the possible repercussions of changing what has worked for thousands of years. Psychological aspects such as morale, cohesion, bonding and withstanding stress are most important to the infantryman.

The Importance of the Moral Domain

In Clausewitz's view the moral domain was one of the most important factors of war, second only to the physical. "In the engagement, the loss of morale has proved the major decisive factor."²⁵ "History provides the strongest proof of the importance of moral factors and their incredible effect."²⁶ He believed the moral domain included the skill of the commander, the experience and courage of the troops and their patriotic spirit as among the most important in war.²⁷

Ardant du Picq highlighted the psychological aspects of the individual soldier when he wrote: "The art of war is subjected to many modifications by industrial and scientific progress. But one thing does not change, the heart of man. In the last analysis, success in battle is a matter of morale."²⁸ He noted that self-esteem was an important motivator for the soldier in combat. Men did not want to be perceived to be cowards among their fellow men.²⁹ He went even further when he talked about groups of men suggesting that there was something unique; groups of men were not just the sum of the individual parts. To illustrate his point he wrote,

Four brave men who do not know each other will not dare to attack a lion.
Four less brave, but knowing each other well, sure of their reliability and consequently of mutual aid, will attack resolutely. There is the science of the organization of armies in a nutshell.³⁰

He captured the essence of Clausewitz's conclusions that war is a trial of strength when he wrote, "nations have an equal sovereignty based on their existence as states. They recognize no superior jurisdiction and call on force to decide their differences. Force decides. Whether or not might was right, the weaker bows to necessity until a more successful effort can be made."³¹

World War I, the bloodiest of all wars, tested men's moral and physical strength beyond imagination. Lord Moran's work in Anatomy of Courage dealt with his observations of soldiers, sailors and airmen and attempted to understand what motivates them in combat. His work was an early attempt at understanding the effects of stress in combat and how stress affected men's behavior. He believed courage was the primary

motivator for men in battle. Moran defines courage as "will power", the "fixed resolve not to quit".³² He described four degrees of courage: a) men who did not feel fear; b) men who felt fear but did not show it; c) men who felt fear and showed it but did their job; d) and men who felt fear, showed it and shirked.³³ Moran based his work on the premise that each individual has some fixed amount of courage, that each of us could maintain that courage for some period of time, and that once it was gone it could not be restored. He identified several factors that degrade men's courage in combat. Based on his experience, Moran cited continuous combat, prolonged exposure to the elements, the continuous loss of the unit's best soldiers and leaders, repressed fears, exposure to death and thoughts of mortality, and monotony as the factors that degraded courage.³⁴

S.L.A. Marshall investigated the psychological factors that motivate and sustain infantrymen in combat. His popular and controversial work, Men Against Fire, delved deeply into the psychological world of the warrior of World War II. His findings stressed the importance of cohesion, which he defines as the "feelings of belonging and solidarity that occur mostly at the primary group level and result from sustained interactions, both formal and informal, among group members on the basis of common experiences, interdependence, and shared goals and values."³⁵ From his research he believed it was the factor that sustains the infantry soldier most in combat as excerpts from his book demonstrate.

I hold it to be one of the simplest truths of war that the thing which enables an infantry soldier to keep going with his weapons is the near presence or the presumed presence of a comrade ...so it is far more than a question of the soldier's need of physical support from other men. He must have at least some feeling of spiritual unity with them if he is to do an efficient job of moving and fighting.³⁶ It is that way with any fighting man. He is sustained by his fellows primarily and by his weapons secondarily. Having to make a choice in the face of the enemy, he would rather be unarmed and with comrades around him than altogether alone, though possessing the most perfect of quick-firing weapons.³⁷ Green troops are more likely to flee the field than others only because they have not learned to think and act together. Individually, they may be as brave and willing then as during any subsequent period, but individual bravery and willingness will not stand against organized shock.³⁸

There is some evidence that the optimum size of the small group for cohesion to develop is in a group of five.³⁹

Philip Caputo, a United States Marine officer in Viet Nam captures the essence of the bonding men experience in wartime quite eloquently.

I have also attempted to describe the intimacy of life in Infantry battalions, where the communion between men is as profound as any between lovers. Actually, it is more so. It does not demand for its sustenance the reciprocity, the pledges of affection, the endless reassurances required by the love of men and women. It is, unlike marriage, a bond that cannot be broken by a word, by boredom or divorce, or by anything other than death. Sometimes even that is not strong enough. Two friends of mine died trying to save the corpses of their men from the battlefield. Such devotion, simple and selfless, the sentiment of belonging to each other, was the one decent thing we found in a conflict otherwise notable for its monstrosities.⁴⁰

S.L.A. Marshall concluded that man is a gregarious animal. Men seek out other men on the battlefield. When they experience the absence of a bond with other men, Marshall found that they were not prone to stay and fight. Since they were unknown to the men around them, what Marshall calls a lack of social identity, they did not fear losing their status as being a "man among men".⁴¹ Marshall's findings found support in studies of American army units in Viet Nam and in Israeli units in the 1973 Arab-Israel War.⁴²

In Anthony Kellett's comprehensive work on combat motivation he explores the relationship between cohesion and stress. There is evidence that men withstand more physical pain when they are members of a tightly knit group than when they are alone.⁴³ In one often cited study of German soldiers in World War II researchers found that as long as

the group possessed leadership with which the soldier could identify, and as long as he felt himself a member of the squad, he was likely to go on fighting. Cohesion within the primary group was enhanced by spatial proximity, by the capacity for intimate communication...and by the gratification of certain personality needs such as the opportunity to display manly toughness.⁴⁴

Research on individual traits related to stress resistance showed an interesting correlation. "...high scorers on the stress index (in other words, stress resisters) shared a number of background characteristics...they had more interests of a more "masculine" nature; they preferred body-contact sports."⁴⁵ Kellett offers no reason as to why this

occurs. Do more "masculine" men demonstrate greater immunity to combat stress reactions because of some personal trait or did they learn stress immunity because of their participation in body-contact sports?

In Kellett's compilation of research he explains the process of building cohesive combat units.

Groups are formed on the basis of mutual attraction, tactical requirements and interdependence, and shared values and goals. To be cohesive, a group must have a mission or an objective. In combat the group sets standards of behavior largely in terms of two primary goals; individual and group survival and task accomplishment. Group standards are enforced by social pressure. Most soldiers are unwilling to take extraordinary risks, but their self-esteem and their membership in the group require that their actions will not be judged unworthy by their fellows. The group facilitates its demands by conveying a sense both of psychological support and of physical protection of its members.⁴⁶

Psychologists have had some difficulty confounding the definition of cohesion. What is it and, more importantly, how do you measure it? A measurement instrument developed by the Army Research Institute has proved to be a simple useful and reliable tool for measuring cohesion in the platoon will serve as a guide. The Platoon Cohesion Index measures three components: horizontal bonding; vertical bonding; and organizational bonding.⁴⁷ Horizontal bonding includes factors such as perceived sense of mission; perceived technical and tactical proficiency; lack of personnel turbulence; and trust, respect and friendship.⁴⁸ Vertical bonding includes the group's connectedness to the leader. Organizational bonding includes dimensions such as loyalty to nation and its values, patriotism, military tradition and history; strong religious belief; well-defined concept of heroism, valor and/or masculinity.⁴⁹ Of interest in this paper are the dimensions of horizontal and organizational bonding. Specifically, this paper will focus on elements of trust, respect and friendship, and a well-defined concept of heroism, valor and/or masculinity.

Up to this point the paper developed an understanding of the combat environment, both its nature and its purpose. It developed an understanding of how the infantryman is motivated and sustained in combat by identifying the moral factors and by establishing

their importance. It explained the process of cohesive team development and an understanding of why close-knit groups form. The remainder of the paper will focus on the development of an understanding of the impact of allowing women to serve in infantry positions might have on the effectiveness of combat teams. The first part of the issue is to understand theoretical frameworks that attempt to explain the possible effect of introducing women into infantry units.

Two Theoretical Frameworks

The first theoretical framework addresses the issue of male bonding. Why do human males form all-male groups? What do they do in their groups? How and why does it occur? Lionel Tiger's controversial work, Men in Groups, attempts to answer these questions through an interdisciplinary approach. He investigates the biological, anthropological and sociological underpinnings of this phenomenon. His hypothesis is that the behavior of men in groups in part reflects a biologically-rooted pattern of behavior which stems from man's evolutionary history (phylogeny).⁵⁰

The first thing he did was define male bonding. How was it different from male gathering? The difference between male bonding and male aggregation is: "aggregation is the bonding of all males of appropriate age. There is no selection involved, no apparently significant ordering for particular individuals by other individuals."⁵¹ Bonding is achieved status in the group while aggregation is ascribed status. In other words, aggregation is analogous to the formal organization of the group. The group is structured to perform a task and accepts the given status of its members based on the tasks each member performs for the group. Bonding is analogous to the informal group. Bonding entails earning some status or respect with the group based on some mutually acceptable criteria. Bonding is more personal.

Bonding is "a process the outcome of which involves specific individuals recognizing other individuals as directly and distinctly relevant to themselves."⁵² Tiger determined bonding to be "part of a subtle political process rather than a simple, clear and

specific event."⁵³ Because it is subtle it is hard to see or measure. Tiger traces our biological and sociological heritage back to the primates (Darwinian theory). Reviewing research of primates he finds many of the traits of male bonding and political dominance closely related. He posits that the origin of this phenomenon occurred when primate tribes reorganized themselves around a "move to a more cooperative based system to insure survival and protection of the herd."⁵⁴

Tiger's hypothesis is that "male-male bonds are of the biological order for defensive food-gathering and social-order-maintenance purposes as the male-female bond is for reproductive purposes."⁵⁵ What this means is that when the tribes oriented around the hunting function to sustain themselves, the males in the population adopted the role of hunter. Females adopted the role of caring after the home and the young. This specialization of tasks became full-time roles which "further widened the gaps between males and females."⁵⁶

Interestingly, he introduced a link between male-bonding and sexual access to females. Male bonded males were sexually attractive to the females of the tribe. He found this correlation in all tribes of primates except two.⁵⁷ Males were rewarded for becoming male-bonded, while those who did not were not rewarded. Additionally, from generation to generation this became ingrained in the culture. Hence, males were culturally motivated to bond with other males and bonding became culturally acceptable.

Given this reasoning, Tiger made a case that behavior differences and male-bonding caused evolutionary differences in the development of males' and females' brains.⁵⁸ If male-bonded males were the only males allowed to mate with females, then there is the plausible explanation that genetic traits could have been passed from generation to generation. Therefore, male-bonding did not only have a cultural cause, but a biological cause as well.

Tiger describes how he thinks the male-bonding process occurs.

Young males seek validation. In addition I am suggesting: 1) that validation involves a process of attachment to specific male peers and

superiors who become defined as the significant others with respect to whom the individual seeks validation, 2) that the process of attachment itself facilitates the effort of validation and in fact leads to a demand that satisfactory evidence of maleness be prerequisite to group membership, and 3) that the combination of the process of attachment and the need for validation leads to a cumulative group "feeling" which - particularly under the stimulus of external threat or the perception of a possible advantage - tends to increase by bold and effective activity."⁵⁹

Tiger reasoned that aggressive behavior results among male-bonded males when there is some external threat or there is an internal threat from a non-male-bonded male (i.e. if a male resisted the male-bonding or attempted to upset the political structure of the current group). He states that it is analogous to the natural courting behaviors of sexually active males and females when they are together. It is a natural behavioral response. Men in continuous association aggress against the environment in much the same way as men and women in continuous relations have sexual relations. Tiger suggests that aggression, in a social organizational sense, is a propensity of males. "It is most efficiently and effectively released or stimulated by association with other males."⁶⁰ Tiger used William Golding's, Lord of the Flies, as an example of this phenomenon.

The hypothesis that strong adult males are sought out as protectors of social order (from both internal and external threats) is based on a "genetically programmed behavioral disposition" for men and women. Therefore, on a larger scale of social organization, (i.e. the formation of nations), men organized themselves as protectors and warriors. Nations require strong political leaders to govern themselves. Nations experiencing external threats defend themselves and often war with another nation. In much the same way, men traditionally occupied police forces to keep the internal threat minimized, thereby protecting their communities. Tiger explains, "men are strong. Enemies and criminals respond to strength. Therefore, men are soldiers and policemen."⁶¹

Is Tiger's theoretical explanation of men's behavior valid? Would adding women to the group of warriors disrupt their bonding? Tiger thinks so. He says, "an anti-female pattern of male bonding will make it more difficult, if not impossible, for ambitious females to reach the posts they wish."⁶² However, some think not. Paul Roush argues that

male-bonding is just bonding in a stressful environment. He says that three conditions are necessary for bonding: organization for a common goal, presence of danger, and a willingness to sacrifice.⁶³ Not one of these is gender-specific. Therefore, he believes that arguments for keeping women out of combat arms assignments based on the cohesion argument is bigotry.

Is bonding a male process or is it a group process? Are the male members of the group the barriers to mixed-gender integration? If men and women have formed successful, cohesive groups in other units, why should the infantry be any different? Various sources seem to shed some light on this.

One author writes,

The combat soldier has historically defined himself in terms of his masculinity.⁶⁴ It is *probable*...that the young male has a biologically given need to prove himself as a physical individual, and that in the past the hunt and warfare have provided the most common means of such validation.⁶⁵

In another source the author states that there is a widespread relationship that links male sexual validation and validation in war, combat, and aggression. Many local customs in human groups that have continued until recent times used warfare and the hunt as means of identifying the males' readiness for marriage. This supports Tiger's finding of the correlation of the attraction of the female to the male-bonded primates. The author further adds,

...Combat in all human groups is and has been an almost exclusively male preserve, and organized warfare has been, in a sense, the expression of the male-bonded groups that constitute armies and their analogues...To carry the illustration further, not only is the capacity to carry out aggression - i.e. to fight - related to the nature of the male bond, but a great part of the bond's sustaining power lies in the language of male sexual identity.⁶⁶

Another study looked at aspects of the soldiers' language and behavior. Its author found a strong relationship between the values associated with the ideal of virility and the purely masculine surroundings of the Army. The author believed that this was key in validating the soldier's image of himself and played a role in motivating his aggressive behavior and channelling its expression.⁶⁷ The author believed that the combat soldiers'

outward behavior is guided by what the soldier believes is stereotypically masculine. The soldier's behavior is characterized by profane language and a professed sexuality that is crude and direct. The author believes this symbolizes the males' measure of competence, capability, and confidence in himself and serves as his armor.⁶⁸

In a separate study two researchers, Hamburg and Washburne, posed an interesting hypothesis that language plays the same role for the human male, in respect to aggression and combative behavior, that displays play for the primate (e.g. baring of the canines, chest thumping, display of the ruff, and so forth).⁶⁹ The authors believed that the similarity of soldier language to the primates' behavior provides another biological link to the primates; this supports Tiger's theory. It also explains the compelling and aggressive use of obscenities in military groups by its male members.⁷⁰

The author reasoned that these acts of bonding and demonstrations of behavior served the purpose of building a stronger self-image for the soldier. Building the image of being tough, aggressive, enduring and being a competent fighter becomes critical in preparing the soldier for combat. Tests of the soldier's maleness serve as "symbolic tests of his combat potential, and the belief in his masculinity and toughness provide mechanisms that enable him to prepare for and accept the terrors of combat".⁷¹ These tests can take many forms in the bonding process. Use of profanity, discussions of sexual exploits, tests of strength, name-calling, and rough physical contact are ways in which the males express themselves in groups and test group members.

Male sexual metaphor comes to symbolize aspects of the self and of the group and its power and consequently becomes an aspect of maintaining the group both to itself and to others.⁷² A quote from a soldier of a British Para unit in the Falkland Islands provides an example. "It was a pure sexual trip every time you got to pull the trigger."⁷³

The normal behavior of combat soldiers in groups at times may conflict with the normal behavior culturally defined for society at large. However, the maleness of an act is the measure of its worth to the soldier and the group and becomes a definition of the

soldier's competence. This is critical to the soldier in building his confidence in preparation for the stress of combat. It is also important in gaining respect among other male members of the group. Although these acts of maleness are often frowned upon by the larger society, these practices have been common to soldierly behavior for hundreds of years, particularly in the combat units. One example helps make this apparent.

In observations made at a basic-training center during the period in which it was being gender-integrated, the importance for the male of definition by maleness and therefore toughness became clear. Almost universally the males felt that they had been subjected to less intense physical training and less challenging soldierly training than they would have been in an all-male environment. Men in units with women in them contrasted their training unfavorably with that of exclusively male neighboring units. The neighboring units were seen as producing tougher, more competent militarily better trained, and "harder" soldiers...the males had judged themselves wanting. If women could do all of the things they could do, how good could they be? The answer of most was, "Not very good".⁷⁴

Finally, Richard Holmes' supports Tiger's claim in his book, Acts of War. He says, "much male opposition to the increase of women's military role stems from the fact that such an increase threatens the single-gender uniqueness from which men derive their self-identification and feelings of masculinity."⁷⁵ On the topic of aggression and violence, one of the authors Holmes cites in his book states: "there is anthropological as well as sociological support for claim for the denial of the warrior role for women, but she argues that there is no physiological reason for this."⁷⁶

One Marine Corps major general states in a Marine Corps Gazette article his agreement with Tiger's premise. He writes:

Infantry units would behave differently with women in the ranks...the development of a successful warrior is hard to describe. It is much more a state of mind than it is physical abilities or knowledge...an essential ingredient in the warrior spirit is a feeling of physical strength and superiority over the enemy...when I add all of these thoughts together, there is no doubt in my mind that we are planting the seeds of failure on the battlefield when we integrate females into the ranks of combat units. Some may advocate a test. You can't come close to replicating the brutality, terror, fatigue, filth, and spartan conditions of infantrymen in war...Male bonding is real, and male bonding is good in this environment.⁷⁷

In contrast J. McNally concluded in his paper at the Naval War College that there did not appear to be any conclusive evidence that male bonding was a truly male occurrence. He

questioned whether the phenomenon Tiger described was more a function of how groups form and interact.⁷⁸

There are many people who advocate allowing women to serve in infantry units. There are some women who are capable of competing with the some men in terms of physical, emotional and psychological capabilities to fight and survive in combat. How many women will be capable of keeping up with the demands of combat? Women can fire most weapons as well as men. But how many can carry the loads required of infantrymen?

The combat infantryman moves with combat pack, weapons, ammunition, grenades, and other equipment. At times he moves steadily; at times, he must make short rushes over broken terrain, doubled over to minimize his size and bearing between 60 and 120 pounds of gear. The combat arms soldier must, at the same time, be capable of killing with his clubbed weapon, with a knife, and with his hands and feet.⁷⁹

Few would disagree that there are not many women capable of meeting the demands of the combat infantryman.⁸⁰ Therefore, if allowed to enter the infantry in the all-volunteer force, the population of women will be very small. What effect will this have on the dynamics of the small group? Rosabeth Kanter's work on investigating the interactions of skewed groups gives us an indication of the potential dynamic. Kanter's work may also be an alternative explanation for the resistance of men to accepting women in what have been traditionally male roles.

The second theoretical framework that helps explain the effect on mixed-gender group dynamics of allowing women into the infantry is Rosabeth Kanter's research on tokenism. She set out to investigate proportion as a critical part of social life, especially in understanding how groups with members of a different culture status work. She hypothesized that "the difference is not merely a function of cultural diversity or *status incongruence*; it reflects the effects of contact across categories as a function of their proportional representation in the system."⁸¹ She believed this interaction is one women encounter when they occupy positions in traditionally all-male occupations.⁸² Her focus then became to look at the impact group structures have on male-female interactions. The phenomenon she investigated occurs in skewed groups only.

Skewed groups contain a large membership of one type, called the dominants, and another type, called the tokens. Skewed groups (as opposed to uniform, tilted and balanced groups) usually consist of a dominant population of approximately eighty-five percent, while the tokens make up the remaining fifteen percent. The numerically dominant types control the group and its culture in enough ways to be labeled "dominants". The tokens are often treated as representatives of their category, as symbols of their kind rather than as individuals.⁸³ The percentage of tokens in the skewed group is not large enough to be able to politically influence the group. Kanter says that coalitions or alliances do not begin to have influence on the group culture until the percentage of dominants to tokens reaches a 65:35 ratio, a group labelled "tilted" rather than skewed. Out of a group of nine soldiers, the size of an infantry squad, the less dominant population would have to consist of two to three members to gain some political influence, according to Kanter's numbers.

There are three "perceptual phenomena" associated with tokens. The first Kanter labels visibility. It is a phenomenon in which tokens capture a disproportionate awareness among the other group members. The second phenomenon is called polarization. It is the exaggeration of the difference between tokens and the dominant population. The final phenomenon is called assimilation. It is the process of group members distorting the tokens' personal attributes to fit preexisting stereotypes. The person is not seen as an individual, but a representative of a type of person.

These three phenomena affect group dynamics in predictable patterns. Visibility forces tokens to experience performance pressures caused by their salience to the group. Polarization tends to cause dominants to heighten their group boundaries. They create behavioral repertoires that accentuate the differences between the tokens and the dominants. Assimilation tends to trap tokens in certain roles, regardless of their personal differences or desires from the stereotypical role.⁸⁴

What are tokens? They are not deviants. They are merely people who differ by ascribed characteristics. These characteristics can be race, sex, religion or ethnic group. Other ascribed characteristics may be a set of assumptions about culture, status, and behavior; stereotypes. Tokens can be whites among a predominantly black group or vice versa. It can occur with male nurses in predominantly female work shifts.⁸⁵ Whether tokens like it or not, they take on these ascribed characteristics as a representative of their category. Individuals of a category are not tokens if the group takes them for granted or accepts them as the same as a dominant. Two factors make tokens more salient to the group. First, they are physically different. Second, they are a new category to the group.⁸⁶ If women entered the infantry they would fit both conditions.

Kanter tested the three perceptual phenomena; visibility, polarity, and assimilation in her field study.⁸⁷ Based on her three theoretical hypotheses Kanter looked for behavioral and psychological pressures placed on the tokens. As a result of the visibility of women to the group, Kanter found the women underwent four various performance pressures which she called: public performance, the extension of consequences, attention to token's discrepant characteristics, and the fear of retaliation.

In the category Kanter dubbed public performance she found that each woman had difficulty doing anything that was *not* noticed by her male peers. Anonymity was virtually impossible to attain. Every action the woman made was open to public scrutiny and criticism.⁸⁸

Kanter found the women's acts had more symbolic consequences. "In short, every act tended to be evaluated beyond its meaning for the organization and taken as a sign of 'how women do in sales'.⁸⁹ The women were aware of this, too. Kanter called this category the extension of consequences.

Kanter categorized a set of responses she termed, attention to a token's discrepant characteristics. Although the token is highly visible to the group, the visibility is usually for the wrong reason. The men in the group tended to notice the differences. They

attended to physical appearance rather than aspects of the women's work. The tokens did not have to work hard to get noticed, but they did have to work extra hard to get their *work* noticed. The men also tended to forget information women provided, but tended to remember more what they wore.⁹⁰

As for the fear of retaliation, she noticed that women worked hard to avoid making the dominants look bad. Tokenism creates a dynamic that makes the token shy away from outstanding performance. This created an interesting paradox for the women. They had to work harder to get noticed, but they could not work so hard that their work "upstaged" a dominant's work because the women feared the men would retaliate.⁹¹

Kanter found these pressures caused tokens to respond in one of two ways. First, they overachieved. This evoked retaliation by the males. They gossiped about the token or they confronted her. The second response was limiting their visibility. This manifested itself in many avoidance behaviors. Women stayed away from meetings. They did work at home. They dressed in more "mannish" dress. They avoided controversial or risky situations that would draw attention to themselves. They refused to verbally participate in meetings. Finally, many women did not make their contributions public to the group.⁹²

In testing for polarization, Kanter found interesting results. The physical presence of women reminded the men of what they had in common with each other. She classified this heightening of boundaries into four categories. They are: exaggeration of dominants' culture; interruptions as reminders of differences; overt inhibition or informal isolation; and tests of loyalty.⁹³

Kanter defined the exaggeration of the dominants' culture as a condition when the "majority members assert or reclaim group solidarity and reaffirm shared in-group understandings by emphasizing and exaggerating those cultural elements which they share in contrast to the token."⁹⁴ Rather than undermining the group's culture, the token underlines it instead. The men's responses to create boundaries took various forms. First, they told tales of sexual adventure and told inappropriate jokes. Second, they told stories

of about athletic prowess and achievements at work. According to male informants, the stories were noticeably exaggerated when women were present.⁹⁵ They highlighted what men could do and what women could not do.⁹⁶ In many instances women were put in situations where they were asked to participate in more masculine activities. These activities were considered socially unacceptable to the women. Giving the women no real choice at all, men prevented them from achieving full membership in the group.

Kanter found that men used women as the cause of interruptions in the flow of group events which she calls interruptions as reminders of difference. "Dominants preface acts with apologies or questions about appropriateness directed at the token: they then invariably go ahead with the act, having placed the token in the position of the interrupter or interloper."⁹⁷ By posing these questions (Can we swear? Can we tell dirty jokes? etc...) they put the token in the role of interrupter. The dominants usually get the answer they want, primarily because of the awkwardness of having one woman decide against nine or ten men. They also put the token on notice that the interaction will now be different because she is present.⁹⁸ Women often found themselves in the position of reassuring men that they could engage in rude behavior in their presence even though the women themselves would not be permitted to engage in such behavior.⁹⁹ They became more like an audience than full participants.

By overt inhibition, Kanter meant informal isolation. Sometimes men did not want to participate in certain activities with women present. They would then choose to conduct these activities in places where women could or would not go. The result was often like quarantine.¹⁰⁰ Researchers found in other settings that women did not tend to be included in the informal networks where socialization occurred. Nor were they privy to the politics behind the formal system. In some cases, managers went as far as precluding women from necessary feedback on their job performance.¹⁰¹

Kanter found men test women's loyalties too. Although women were kept on the periphery of the group, the men called upon them at times to demonstrate loyalty to the

dominant group. Failure to do so resulted in further isolation.¹⁰² These tests usually ask the token to side with the dominant group against the token's own category. Tokens do this in one of two ways. First, they participate in making statements against their own category or they consent by their silence. Second, they allow themselves and their category to be the source of humor for the group.¹⁰³

Women's responses to these boundary heightening behaviors take one of two directions. They accept isolation or they try to become insiders, proving their loyalty by defining themselves as exceptions and turning against their own social category. This has been confirmed by other research and has been called the "queen bee syndrome".¹⁰⁴

In terms of assimilation, Kanter found the token was the victim of role entrapment. The men distorted token's characteristics to fit preconceived notions about women. This phenomenon tended to limit the women's roles forcing them to be more of an actress playing a part than of an individual contributing to the group's success. Kanter grouped her observations into two categories: status leveling and stereotyped role induction.

Status leveling, as defined by Kanter, was the notion of "statistical discrimination" as opposed to prejudice. In other words, women generally found other men who did not already know them assumed they were in roles congruent with typical roles for typical women. They assumed the saleswomen were secretaries, wives, lovers, dates or temporary substitutes for the men. In some cases, even when the men knew the women, they tended to treat the women as if they were in these typical roles.¹⁰⁵

This category of perceptual responses dealt more with how the men actually assimilated women into the group. Since they could not accept them on their own merits and as an equal they used what Kanter calls stereotyped role induction. They placed women into one of four stereotypical roles with which men could relate. The roles are: the mother; the seductress; the pet; and the iron maiden. The men determined the woman's role based on one behavioral tendency demonstrated by the woman. They then forced her to continue to live up to that image.¹⁰⁶

In the mother role the token finds she has become a mother to a group of men. They bring her their troubles, she comforts them. In several observations of women in this role they assumed the duties of cook, launderer, and seamstress. The mother role is a comparatively safe one. She is free from sexual pursuit and men feel no need to compete for her favors. However, there are three negative consequences for a woman's task performance:

(1) the mother is rewarded by her male colleagues primarily for service to them and not for independent action.

(2) The mother is expected to keep her place as a noncritical, accepting, good mother or lose her rewards because the dominant, powerful aspects of the maternal image may be feared by men. Since the ability to differentiate and be critical is often an indicator of competence in work groups, the mother is prohibited from exhibiting this skill.

(3) The mother becomes an emotional specialist. This provides her with a place in the life of the group and its members. Yet at the same time, one of the traditionally feminine characteristics men in positions of authority in industry most often criticize in women is excess emotionality. Although the mother herself might not ever indulge in emotional outbursts in the group, she remains identified with emotional matters.¹⁰⁷

The seductress role proves more precarious for the woman *placed* in this role.¹⁰⁸

It becomes a non-winnable role for her. The role is filled with sexual tension and places the woman in a dilemma. She is sought after and becomes a source of competition and jealousy in the group. If she is cast as the sex object and shares her attention with many of the men, she will be perceived as a tramp. On the other hand, if she closely allies herself with one man, the group resents it and the woman experiences their displeasure.¹⁰⁹ In several situations observed, women allied themselves with a man of higher status (i.e. a supervisor or boss). He could protect her from the group. The other men resented her behavior because it represented rejection of them and the existed potential for her to use her influence for self-gain. These men of status may even further isolate the woman from the rest of the group by guarding her and limiting the group's interaction with her.¹¹⁰

Men perceive the woman in the role of the pet to be cute and entertaining to them. The pet is more like a mascot or a cheerleader applauding the men's successes. "Humor is

often a characteristic of the pet. She is expected to admire the male displays but not to enter into them; she cheers from the sideline."¹¹¹ Instead of the woman being recognized for what she adds to the group, she is recognized for how she entertained the group. When women performed their jobs competently, men made a fuss over them. They did not praise her work as an equal rather they called her actions precious or precocious. Such male attitudes encouraged the women to behave girlishly instead of encouraging the women to achieve their potential.¹¹²

A woman who does not fit into any of the roles mentioned earlier becomes, in the men's eyes, unapproachable. They place her in the role of the iron maiden, particularly if she is a strong woman. "Women inducted into the iron maiden role are stereotyped as tougher than they are and trapped in a more militant stance than they might otherwise take."¹¹³

Kanter found that women trapped in these roles responded in various ways. For many it was more trouble to try to correct the mistaken identity than it was to just live with the role. Hence, many women just acquiesced and submitted to their fate in the group. Kanter also found that even the tokens distorted their own role suggesting that "accurate conclusions about work attitudes and behavior cannot be reached by studying people in the token position, since there may always be an element of compensation or distortion involved."¹¹⁴

In discussing the implications of her research Kanter found two token women in a small group is not enough. Two do not possess enough power to influence the dominant group. In these situations dominants were nearly always able to defeat an alliance between two women. The men set up invidious comparisons. They distorted the qualities of the women, labelling one successful and one not. The one classified as successful was relieved to be perceived as accepted. Realizing her association with the other woman would evoke retaliation by the group, she chose to disassociate herself from that person. The second woman soon left the organization. Another technique used to defeat the women was for

men to actually promote the relationship. Fearing the men would isolate them more, the women reacted to the pairing by becoming competitive with each other in the hopes of demonstrating their worth as individuals.¹¹⁵ Kanter concluded that women need to be integrated into the work place in sufficient numbers to prevent being forced into a token status.

Women in traditionally male roles in a token status in groups are severely limited. They often overachieve or underachieve. They accept distorted roles ascribed to them by the dominant culture. They potentially experience detrimental forms of stress that men do not have to cope with in this situation. They are frustrated by limiting role behaviors and uncertainty about their performance, they potentially expend more energy to be perceived as keeping pace with the men, and they lack the social support to cope with the stress of the environment they find themselves.¹¹⁶

This paper has pointed out the nature of ground combat, the importance cohesion played in the infantry unit in meeting the demands of the combat environment, and it has looked at two theoretical frameworks for understanding the potential interaction that may occur if the infantry becomes open to women soldiers. The evidence presented is a mixture of scientific reports, historical studies, and anecdotal information from primary sources. This part of the paper will analyze whether allowing women into the infantry could potentially cause lowered morale or cohesion at the small unit level.

Evidence of Mixed-Gender Dynamics

There are examples of units working and performing well together. One of the first studies done to investigate this issue occurred in the late-1970s. It is commonly referred to as the MAXWAC study.

MAXWAC (maximum WAC), a study aimed at establishing the maximum proportion of a unit that can be female before unit performance declines, involved a total of forty combat support and combat service support companies. Units varied by type: maintenance; medical; military police; signal; and transportation. The study observed unit

performance on a three-day field training exercise. The proportion of women in the units varied between zero and thirty-five percent. The study concluded that no degradation of performance occurred. Specially trained neutral observations made the observations. Some levied criticisms because of the short duration of the exercise. They did not believe it was a true test. Therefore, they designed another test called REFWAC.¹¹⁷

REFWAC was a study conducted with units participating in the 1977 Return of Forces to Germany (REFORGER) exercise. The exercise was a 10-day field training exercise with an additional maximum total of 20 days before and after the exercise (depending on the individual's responsibilities). It attempted to investigate the effect of women on the unit's performance in the field.

It was found that accommodations had to be made to the presence of women and that some of the enlisted men and NCOs exhibited negative attitudes toward the women...[but] the presence of female soldiers on REFORGER 77 did not impair the performance of combat support and combat service support units.¹¹⁸

Many of the problems the observers attributed to poor leadership and management. Although performance did not suffer, the report did little to expound upon the cohesion of the unit. It did address the men's attitudes, however.

The study found that men's attitudes got worse as the percentage of women in the unit increased, a finding possibly contrary to Kanter's predictions. Men with the worst attitudes belonged to work groups with female percentages of fifteen percent or higher. The study identified three factors thought to have caused the men's change in attitude. They were: stress; the physical differences in capabilities between men and women; and the differential treatment of men and women in the unit. The observers thought that more women in the group caused men to have to handle higher proportions of the physically demanding workload causing poorer attitudes among the men. Women were assigned lighter tasks. Therefore, the perceptions of differential treatment existed. Half the males perceived that women got more privileges and easier jobs while only sixteen percent of the

women believed women got more privileges and thirty percent of the women believed women got easier jobs.¹¹⁹

Moskos' observations of units in Honduras involved in Operation "Granadero I" did support the conclusion based on performance, but disagreed with REFWAC's findings on attitudes. He found women worked well and performed their share of the heavy labor. He found men more defensive of the women than derogatory. He found men began, over time, to judge the women more as individuals than as representatives of their sex. He found sexual harassment not to be a problem.¹²⁰

Two historical examples shed some light on the *combat* effectiveness of integrated units. The first describes the success of espionage units in Europe during World War II. The second is a less convincing, but informative analysis of Russian women fighting during the revolution.

George Quester's article analyzed the effectiveness of U.S. espionage agents in France. He sought an answer to the question, can women be part of an effective combat team with men? He could not be sure. However, he made several conclusions. He found there was no evidence men trusted women any less. There was no evidence women were less capable of handling torture upon capture, nor were women any less capable of keeping a clear head in a very stressful situation (i.e. impending capture).¹²¹ He added a caveat to his conclusion, however. He said,

..being a part of an underground is admittedly not as physically arduous as being part of an infantry patrol. Yet in most respects it resembles the patrol, in the crucial need for mutual confidence among its members, in the alternative of long periods of waiting and boredom with short periods of extreme tension, and in the crucial need for discipline. Evidence from espionage seems to support it, however, espionage males were above average in intelligence as opposed to infantry soldiers.¹²²

Quester thought the espionage experience was the closest thing to combat the U.S. has experienced with women. He argued that they obviously passed the test.

Women fought alongside men in the Russian revolution. They were integrated into all-male units and fought well. Many men's attitudes about women improved after the

women proved themselves. Although historical records published paint a rosy picture, there is little documentation about the problems these units experienced. In a separate study by John Armstrong he goes to the other extreme. He concludes that men were suspicious of women, that women were not treated fairly, and that women fell into the "camp follower" (non-combat or support) roles.

Is this support for Kanter's predictions? Were the men behaving as Tiger predicted? It is hard to say. Can one generalize from the Russian culture of the early 1900s and predict group behavior in the American Army of the 1990s? A more recent experience in combat may be more helpful.

Henry Shirah's experience as a Military Intelligence battalion commander in Desert Storm provides more current observations. He observed that deployability issues crossed racial, gender and rank lines. Deployability was not a "woman's" problem. He found that concerns about female soldiers' endurance, modesty, hygiene or males taking undue risk to care for women, were misplaced. There were no greater problems involving women than men. Without question, women were as resilient as men and in all areas, save for brute strength, just as capable.¹²³

Shirah's observations and conclusions more address the question of women's ability to function in the combat environment rather than exploring the cohesion and effectiveness of his battalion. He implies men and women worked well together, but he really does not address the cohesiveness of his unit.

Another report on Desert Storm came to the following conclusions. There is no evidence to show that male-bonding is better than mixed-bonding. This is mostly due to lack of research, however. There is also no evidence saying male-female bonding is just as good either. Some observers in Desert Storm showed that mixed-gender bonding is the same as male-bonding.¹²⁴

Two soldiers interviewed in Panama following "Just Cause" offer some insight into the cohesion of their unit. A woman enlisted soldier described the relationships in her

platoon as being more like brother and sister, rather than being one of a sexual nature. A male soldier in her unit claimed to have several close friends who were female. He described the platoon's cohesion as "living with a big family".¹²⁵

The previous examples seem to show that men and women can work well together in peacetime and in very stressful situations such as combat operations. They seem to provide some evidence that women in infantry units might work. The REFWAC study points out the potential for attitudinal problems to affect the unit if the leadership is not attuned to effectively dealing with gender differences. However, there are other examples that do not paint as rosy a picture.

The Swinter Land trials in the Canadian Defense Forces in the early-1980s provide some interesting data. The trials observed men and women together in eight combat service support units for the purpose of determining whether mixed-gender military units could be effective. The Canadians were well aware of Kanter's research and attempted to control for tokenism. The Canadians published their findings after observing the units for *four* years. They based their conclusions on two criteria; 1) "did servicemen show an acceptance of women both in their recorded attitudes and in their behavior toward women, or did they endeavor to keep women "segregated"? and 2) did servicewomen perceive they belonged in their unit and did they fully participate in unit taskings and activities?"¹²⁶ They concluded,

...it is clear that servicemen and servicewomen did not achieve a satisfactory social integration. Instead, the attitudes and behaviors expressed by men and women in the two trial Units showed that servicewomen, at best, were "accommodated not assimilated" during their trial postings. Unit cohesion, esprit de corps, and ultimately unit morale were found to suffer in that almost 50% of the servicemen in the two trial Units continued to view servicewomen throughout the trial period as "women first, tradespersons second, and soldiers never" who could not be relied upon. As one woman stated, "It's not the job... it's the men and the constant putting down. It's hard". "if we stick together we're told we're not trying to fit in", [they discovered that] "guys who like us won't stick up for us".¹²⁷

The reasons for failure were:

1. women's lesser physical strength and stamina;

2. some women's questionable combat/field motivation;
3. women receiving preferential treatment;
4. the increased complexity of leadership involved with mixed-gender platoons;
5. the inconsistency of employing women in possible combat environments when compared with conventional military practices.
6. Servicewomen, in contrast, viewed their difficulties in being accepted as resulting primarily from servicemen's negative attitudes; from servicemen receiving differential treatment (servicemen being assigned certain tasks which women were not); and, from the heightened scrutiny to which they were subjected as a function of the evaluation. This occurred despite the fact that many of the women were found competent to serve in that job.¹²⁸

The authors admitted the trial was complex and many of the variables were confounded making conclusions tentative at best. The results indicate it was difficult to determine where the greatest cause for failure lie. Since the trials, the Canadian government required the Canadian Defense Force to open infantry assignments to women. To date, seventy-nine women have been recruited for infantry training, one woman has passed, and she has since requested to leave the infantry.¹²⁹

Karen Dunivin's research paper on how women Air Force officers cope in their organizations supports Kanter's findings in many of the female's coping strategies. She interviewed thirty-five female Air Force officers to learn how women adapt to succeed in the predominantly male social world.

She found women adjust to the military social world through "role and ideological accommodation". First, they formulate a role identity that is compatible with the masculine world of the Air Force. They adopt a male's perspective. As a result, they accentuate rewarded work roles and minimize feminine gender roles. Second, they vocalize an ideology to help them perceive the male social world favorably. Specifically, they: "a) compare themselves with other women to feel "relative fortune"; b) downplay the perceived hostile environment; and c) adopt an individualistic perspective which allows them to focus on women's successes."¹³⁰ These coping tactics help women adapt to the

military social world and reduce their feelings of being borderline in a primarily male environment.

A second result of role accommodation was the women's lack of gender awareness, a sense of identity with women or their issues. This occurred because "sisterhood" opposes the normal order of the military which emphasizes masculine roles. Therefore, they withdrew from other women and from women's issues. They focused on work roles. Most of the women (86 percent) ardently denied they were feminists. They described feminists in negative terms. Additionally, over three-fourths of the women (82 percent) reported little or no social or professional networking among Air Force women. Lastly, fifty-four percent of the women made disparaging comments about fellow military women.¹³¹

In ideological accommodation they tended to downplay or minimize a perceived hostile environment. Nearly three-fourths of the women described personal experiences of sexual harassment and discrimination. None did anything about it. Many were fearful and reluctant to report incidents because of potential negative repercussions. Some were afraid of receiving bad ratings.¹³²

To cope, women tended to downplay the significance of the behaviors. They rationalized it as an occupational hazard or they retreated to limit their visibility (the "ostrich syndrome"). Sixty-nine percent of the women said they were not well informed on women's issues. Such "ostrich-like" actions allowed women to ignore discriminatory policies and blatant sexist treatment. Consequently, they felt in the mainstream in the Air Force, not marginal.¹³³

A third coping approach was for the women to focus on their individual successes. They reasoned that since they were successful, the Air Force must be totally integrated. It could not be a sexist, hostile environment if they were successful.¹³⁴

These results support Kanter's theoretical predictions. They demonstrate typical responses token women have to predominantly male groups. Charles Moskos'

observations of Army units in Honduras supports Dunivin's findings. He sees this trend more among the officers than among the female enlisted soldiers.¹³⁵ The same issues may be felt by non-commissioned officers as well. One female Sergeant First Class, a personnel specialist, said,

The real problem now is that the female NCO is never taken as seriously as the male. Every time we are reassigned to a new unit, we have to prove ourselves all over again. Our credentials aren't portable like the men's...[she admits to having few friends]...if you get too close to the men, they think you're having an affair. If you hang around with women, they think you're a lesbian. Let's face it, you can't really be one of the boys. The kind of insults men throw at each other a woman can't do, unless she wants to cross an invisible line of respect.¹³⁶

The insights Dunivin and others provide help us understand the perceptions of women in a token status. What they describe appears more to be accommodation than assimilation within the male work group. The women do not sound as if they are truly bonded with their male counterparts. Rather, they sound as if they are adapting. Gaining an insight as to how the men who work with these women accept them into the group would help to better understand the degree of cohesion both men and women felt within these work groups. But these issues seem mild compared to some of the problems the Army has dealt with over the last fifteen years.

Sexual harassment has been a problem in the Army for many years and has recently gained national attention. "Sexual harassment, sexually degrading comments and discrimination against women in the workplace are among the most pervasive and troubling problems for the U.S. military as increasing numbers of women move into jobs long reserved for men only."¹³⁷ Although women face similar problems in private industry, particularly in traditionally male, blue-collar jobs, the issue is intensified in the unique male-oriented military culture. A 1988 Pentagon survey showed most military women have suffered some form of sexual harassment during their active service. Five percent of female service members reported being raped or sexually assaulted, while others reported incidents such as lewd jokes or pressure for sex.¹³⁸ Interviews with dozens of women,

supported by internal military studies, indicate that one of the most critical breakdowns involves the military's reporting system for sexual harassment charges.

Is this evidence of Tiger's theory? Do men feel threatened by women's presence in military units? Does it cause some to become aggressive and violent? It is hard to say from the information available. Who are the harassers? Who are the victims? Are lewd jokes the boundary heightening behaviors of dominant men toward token women? Is harassment coming from outside the group? These are all points that will help us understand why this is still a problem after fifteen years of trying to integrate women into the combat service and combat service support units. Would this be a more severe problem in infantry units? One can only guess at this point.

The results of the evidence cited are mostly inconclusive. It is apparent that some units successfully integrate women and some do not. Why are some groups able to integrate women better than others? One report written by researchers at the Army Research Institute offers an explanation. This report concluded that a man's view of the roles of women in combat is dependent on his frame of reference. Men enlisting in the Army join with one of two frames of reference. They perceive themselves as either soldiers or employees. Men who view themselves as *soldiers* were twice as likely to oppose allowing women in combat roles because of concerns for the potential effect on cohesion and motivation of the group. Men who viewed themselves as *employees* were more likely to respond that it opening all combat arms positions to women is an equal opportunity issue. Hence, they would probably support allowing women into combat roles.¹³⁹

Do units that successfully integrate women and bond with them consist of a higher percentage of male soldiers who view themselves as employees? Do unsuccessful units have a higher percentage of male soldiers who perceive of themselves as soldiers? Do soldiers who view themselves as employees flock to specific types of units? Do soldiers who view themselves as soldiers join specific units? Do certain types of units promote a

culture that affects a soldier's self-perception? Is there a correlation between units that possess higher percentages of soldiers who view themselves as soldiers and the frequency of sexual harassment? The answers to these questions would help in understanding how group dynamics develop in some units and how they affect the integration of women.

Conclusion

This paper has investigated the question of whether it is in the best interest of the United States to open infantry positions to women. Essentially, there is a dilemma between providing equal opportunity for *all* soldiers, and providing for the common defense. It is the author's judgment that, if women are allowed to fill infantry positions, both interests may be poorly served.

First, the nature of the battlefield for the infantryman is not likely to change in the foreseeable future. Technological solutions are not likely to change this fact either. It will still demand extreme physical strength and endurance of each infantry squad and platoon. Infantry squads and platoons are likely to serve increasing roles on the future battlefield while operating more isolated from their larger units. Therefore, the battlefield will become increasingly stressful. Consequently, cohesion - the mutual bond, trust and respect the small unit members feel towards each other - becomes more critical to motivating and sustaining these units in battle.

One nation goes to war with another nation to coerce the other nation into doing its will, whether that be to protect its power or to gain more power. At the tactical level, battle requires both physical and psychological strength. Hence, men have historically been the warriors. To prepare for war, men bond. Bonding, a process focused on achieving a tight-knit "brotherhood", steels men against the horrors of battle. It is often characterized by rough language and rough play. If one accepts Lionel Tiger's theory, bonding is culturally and biologically embedded in the male of the species. This is true of humans and other species in the animal kingdom. It is behavior that is uniquely male and it is not likely to change in one's lifetime.

Extrapolating from Tiger's viewpoint then, adding women to the historically all-male group may threaten the men's masculinity. If the men are bonded and they perceive the woman as a threat, men may likely behave aggressively toward the woman. The aggressive behavior could take many forms and vary in severity.

Tiger's explanation for male behavior, in theory, adds a dimension to Rosabeth Kanter's theory on male behavior in mixed-gender groups. It explains why men's behavior takes the form it does. The language the men used, the jokes and tales they told, and the teasing they rendered were typical male responses when they were either reminded of their maleness or felt threatened by the mere *presence* of a "token" woman. The woman's presence in a role viewed as typically male questioned the men's perception of masculinity. At its worst, women evoked retaliatory responses from men. At its best, men accommodated the woman. Accommodation is not the same as assimilation and a degree different from bonding.

Given the likely state of future combat, the Army would have to restrict the number of women allowed into the infantry units to preclude fielding ineffective infantry units.¹⁴⁰ Since few women would be present in the infantry units, the likelihood that natural skewed-group behaviors will occur. If women are "tokens" in these small units, cohesion may exist, but Kanter's theory would predict it to occur only among the men. According, to Kanter's argument women would most likely feel like spectators rather than feeling like an integral part of the small level unit. This would address neither side of the issue. Women would not get equal opportunity because they would not be treated as equals. Combat effectiveness would also decline. The group dynamic would promote cohesion among the many at the expense of the few. Theoretically then, allowing women into the infantry is not in the United States' best interest. But what about the evidence cited?

The findings are mixed. In some cases units have been wholly successful while other units have failed miserably. The REFWAC and MAXWAC experiments, Moskos'

investigation of units in Honduras, and the historical analysis of Russian units and U.S. espionage units seem to refute the theories. On the other hand, sexual harassment behaviors, the Swinter Land trials, and Dunivin's research appear to support the theories. None of the evidence cited suggests the units observed achieved the degree of cohesion Caputo described. Nor did any of the units appear to match S.L.A. Marshall's concept of cohesion. From a current combat effectiveness perspective, the Army recently proved its effectiveness in Panama and in the Persian Gulf. Infantry units were bonded and proved courageous in battle. The Army is also getting smaller. Hence, there is no shortage of young males to fill infantry positions. Given these factors and the lack of convincing evidence suggesting infantry units would remain as effective with women in its ranks, there is no sufficiently compelling reason to open infantry assignments to women.

There is still a lot yet unknown. Would the group dynamics change when bullets start flying? Will cohesion develop in mixed-gender units previously lacking cohesion? There is the potential it will. There is the potential it will not. Maybe the higher probability is it will not. If units do not arrive on the battlefield already cohesive, how will they fight in their first exposure to battle? How resistant to the paralyzing stress will they be? How psychologically prepared will the potentially isolated women infantry soldiers be before the battle? The answer is pure conjecture at this point. However, conducting tests to determine the answers to these questions and risking people's lives is morally wrong.

Theoretically, allowing women into the infantry may affect the cohesiveness of the combat unit. Presently, there is no compelling evidence proving infantry units will not be affected by this change. Equal opportunity, the catalyst for change, may not be well served by opening the doors to infantry units either. Time and circumstances may prove otherwise. Until then, it is not in the United States' best interest to allow women into the infantry.

- ¹ DAPE-HR-S, Memorandum, Subject: Women in Combat, dated 1 October 1992.
- ² Ibid.
- ³ Rick Maze, "Combat Jobs for Women Close", Air Force Times, 51, #43, 20 May 1991, p. 3.
- ⁴ United States Army Regulation 600-13, Army Policy for the Assignment of Female Soldiers, Washington, D.C., 27 March 1992, p. 4.
- ⁵ Ibid.
- ⁶ Ibid.
- ⁷ DAPE-HR-S.
- ⁸ Kathleen Kay Stromer, "GAO Report: A Long Way from Equality", Armed Forces Journal International, 127, #8, March 1990, p. 56.
- ⁹ Grant Willis, "Promotions: Women Gaining, DoD Says", Air Force Times, 51, #13, November 5, 1990, p. 3.
- ¹⁰ Mary Ann Attebury, "Women and Their Wartime Roles", Minerva, 8, #1, Spring 1990, p. 22.
- ¹¹ Charles Moskos, "Army Women", The Atlantic Monthly, August 1990, p. 73.
- ¹² Nancy L. Goldman, Female Soldiers - Combatants or Noncombatants?, Westport, CT: Greenwood Press, 1982, p. 253 (355.1088042 F329 c.1).
- ¹³ Clausewitz, Carl Von, On War, translated by Michael Howard and Peter Paret, Princeton: Princeton University Press, NJ, 1984, p. 96.
- ¹⁴ Ibid., p. 95.
- ¹⁵ George C. Marshall, editor, Infantry in Battle, Washington, DC: The Infantry Journal Incorporated, 1939, pp. 226-7.
- ¹⁶ E.B. Sledge, With the Old Breed, NY, NY: Oxford University Press, 1981, p. 216.
- ¹⁷ Ibid., p. 216.
- ¹⁸ Ibid., p. 234.
- ¹⁹ George Wilson, If You Survive, NY, NY: Ivy Books, 1987.
- ²⁰ United States Army, "Women in Combat Task Force Study Report", Ft. Leavenworth, KS: CACDA, June 1986, p. III-1 (N18968.323-4).

- ²¹ Goldman, p. 248.
- ²² John Keegan, The Face of Battle, Middlesex, England: Penguin Books, 1976, pp. 303-319.
- ²³ English, John A., On Infantry, New York: Praeger Publishers, 1984, p. 217.
- ²⁴ Ibid., p. 217.
- ²⁵ Clausewitz, p. 231.
- ²⁶ Ibid., p. 185.
- ²⁷ Ibid., p. 185.
- ²⁸ BG T. R. Phillips, editor, Roots of Strategy, Book 1, Harrisburg, PA: Stackpole Books, 1987, p. 135.
- ²⁹ Ibid., p. 180.
- ³⁰ Ibid., p. 136.
- ³¹ Ibid., p. 242.
- ³² Lord Moran, The Anatomy of Courage, NY, NY: Avery Publishing Group Inc., 1987, p. 61.
- ³³ Ibid., p. 3.
- ³⁴ The reflective time in which the mind is not kept busy doing productive work may be what allows men in combat to actually realize their plight, and hence, they realize their fear. Several sources read for this paper suggest keeping soldiers continuously occupied mentally to preclude creating psychiatric casualties.
- ³⁵ Anthony Kellett, Combat Motivation: The Behavior of Soldiers in Battle, Boston: Kluwer-Nijhoff Publishing, 1982, p. 46.
- ³⁶ S.L.A. Marshall, Men Against Fire, Gloucester, MA: Peter Smith, 1978, p. 42.
- ³⁷ Ibid., p. 43.
- ³⁸ Ibid., p. 124.
- ³⁹ Kellett, p. 45.
- ⁴⁰ Philip Caputo, A Rumor of War, NY, NY: Ballantine Books, 1977, p. xv.
- ⁴¹ Marshall, S.L.A., p. 153.
- ⁴² Shils (1977) found a similar failure among American deserters during the Vietnam. A parallel discovery occurred in Israeli during the 1973 war (Belenky, 1978).

They found that men who suffered combat reactions reported little or no identification with their unit, no trust in their leaders, frequent transfers and rotations, and feelings of not belonging to their units. Men who reported the opposite impressions seemed protected to some extent against psychiatric breakdown. Kellett, p. 101.

⁴³ Ibid., p. 45.

⁴⁴ Ibid., p. 100.

⁴⁵ Ibid., p. 280.

⁴⁶ Ibid., p. 320.

⁴⁷ G. L. Siebold, "Development of the Platoon Cohesion Index", Alexandria, VA: U.S. Army Research Institute, October 1988, p. viii (ADA205478).

⁴⁸ N.K. Stewart, "South Atlantic Conflict of 1982; A Case Study in Military Cohesion", Alexandria, VA: U.S. Army Research Institute, June 1988, p. ix (ADA193790).

⁴⁹ Ibid.

⁵⁰ Lionel Tiger, Men in Groups, 2nd ed., NY, NY: Marion Boyars, 1984, p. xi.

⁵¹ Ibid., p. 20.

⁵² Ibid., p. 21.

⁵³ Ibid., p. 19.

⁵⁴ Ibid., p. 21.

⁵⁵ Ibid., p. 42.

⁵⁶ Ibid., p. 44.

⁵⁷ Ibid., p. 46.

⁵⁸ Ibid., p. 46.

⁵⁹ Ibid., p. 183.

⁶⁰ Ibid., p. 160.

⁶¹ Ibid., p. 81.

⁶² Ibid., p. 87.

⁶³ Paul E. Roush, "Combat Exclusion: Military Necessity or Another Name for Bigotry", Minerva, 8, #3, Fall 1990, p. 8.

⁶⁴ David H. Marlow, "The Manning of the Force and the Structure of Battle: Part 2 - Men and Women" in Conscripts and Volunteers Military Requirements, Social Justice, and the All-Volunteer Force, edited by Robert K. Fullinwider, Totowa, NJ: Rowman & Allanheld Publishers, 1983, p. 191.

⁶⁵ Margaret Mead, Male and Female, New York: William Morrow, 1975, p. xxvi.

⁶⁶ Marlow, p. 191.

⁶⁷ Henry Elkin, "Aggressive and Erotic Tendencies of Army Life", American Journal of Sociology, 51, March 1946, p. 410.

⁶⁸ Marlow, p. 192.

⁶⁹ David A. Hamburg, and S. Washburne, "Aggressive Behavior in Old World Monkeys and Apes", in Primates: Studies in Adaptation and Variability, edited by P. Jay, New York: Holt, Rinehart & Winston, 1968, p. 192.

⁷⁰ Marlow, p. 192.

⁷¹ Ibid., p. 192.

⁷² Ibid., p. 192.

⁷³ Richard Holmes, Acts of War, The Behavior of Men in Battle, NY, NY: The Free Press, 1985, p. 57 (363.66 H752a.c89).

⁷⁴ Marlow, p. 194.

⁷⁵ Holmes, p. 101.

⁷⁶ Ibid., p. 101.

⁷⁷ Major General Gene A. Deegan, "Women in Combat: A View from the Top", Marine Corps Gazette, 75, #10, September 1992, p. 43.

⁷⁸ Jeffrey A. McNally, "Women in the U.S. Military: A Contemporary Perspective", Newport, RI: United States Naval War College Paper, 21 June 1985, p. 60 (ADA159223).

⁷⁹ Marlow, p. 195.

⁸⁰ Statistically speaking, average female upper-body strength is 42 percent less than average male upper-body strength. Looked at another way, the statistics mean that on the average the top fifth of women in lifting capacity are the equal of the bottom fifth of men on the same measure. This puts women at a serious disadvantage. Opponents of the combat-exclusion rule point out that much of modern warfare is technological and "push-button" and does not require brute strength of the combat soldier of old. There is some truth to this. The irreducible fact remains that physical strength and endurance are still the hallmarks of the effective combat soldier on the ground; indeed, such qualities may

be more important in the future, when we make use of rapid-deployment forces, whose members must carry most of their equipment on their backs. in Charles Moskos, "Army Women", The Atlantic Monthly, August 1990, p. 77.

A study conducted with 20 male and 20 female ROTC students at Penn State University demonstrated some interesting results. The purpose of the experiment was to find out the effect of waist back size differences compared between men and women to determine if the Army should adopt multi-size backpack frames or whether one size fits all. The populations, in general, were comparable to the male and female soldiers when the test was conducted. The men and women conducted several tests with backpack frames of varying dimensions. Tests measured horizontal motion (reaction movements and agility run), vertical motion (ladder climb), a treadmill walk at 4.8 km/hour, and a run at 8.0 km/hour. In each test the men and women wore the same equipment (fatigues, boots, helmet, ALICE pack with a 20 pound load and load-bearing equipment). Findings were: men outperformed women in the horizontal motion by 13 to 14 percent. Vertical movement showed the most significant difference. Men bettered women by 44%. Movement directly against gravity proved difficult for women. There were different stride rates for women. Although there were not significant differences between the men and women for the duration of the test, the researchers thought it may require the women to use more energy to keep pace in a unit march. The question unanswered is whether women would show significant degradation of performance relative to men over extended road marches. On the run test, many of the females were unable to complete the five minute run on the treadmill under the load conditions used in the study. In Philip Martin, Richard C. Nelson, and In-Sik Shin, "Effects of Gender, Frame Length, and Participation Time on Load Carrying Behaviors", Natick, MA: United States Army Research and Development Laboratories, August 1982, p. 52 (ADA122831).

In a related study conducted by the same researchers at Penn State University, men and women were tested to determine differences under varying loads. This study contained five different tests. 10 and 20 yard sprints, agility run, standing long jump, reaction movements tests, and ladder climb. The participants conducted the tests in 5 different load conditions: Physical fitness uniform (.55 to .77 kg), fighting gear consisting of LBE with no helmet (9.07 to 9.41 kg), combat gear with M16, helmet and vest (16.75 to 17.59 kg), previous load with ALICE pack and 20 pounds (29.29 to 29.93 kg), the previous load with a total of 35 pounds in the ALICE (36.09 to 36.73 kg). Findings: the mean difference between men and women was 19% on all tests but two. The long jump difference was 74%. The ladder climb was 52%. Richard C. Nelson, and Philip E. Martin, "Effects of Gender and Load on Combative Movement Performance, Volume I", Natick, MA: United States Army Research and Development Laboratories, February 1982 (ADA118659).

A similar study was done in the Netherlands. Based on a 2-hour test of males and females using backpacks walking 5.2 km/hour they found that the capacity of the metabolic system restricts the total load to 37 kg for men and 22 kg for women (the load includes clothing, boots, helmet and weapon). In combat the maximum load is restricted to 9 kg for men and 6 kg for women. In M. Holewijn, "De Militaire BePakking Advizen over Het Gewicht en De Verdeling (The Military Pack Optimal Load and Distribution)", Soesterberg, Netherlands: Institute for Perception RVO-TNO, 7 July 1989 (ADA218053).

Tests of three groups of female recruits taken in 1987 found that 45 percent could not throw the grenades the 49 feet required to avoid the burst radius. In Molly Moore, "Open Doors Don't Yield Equality", The Washington Post, September 24, 1989, p. A16.

In one strength test, the Army found that although women in basic training improved their scores on strength tests to a greater degree than men (15 percent compared with the men's 8 percent), the males strength was an average 45 percent greater than the women's. As a result, the Army estimated that only 8 percent of all female soldiers could physically qualify for jobs that require heavy lifting, in contrast to 72 percent of the men. Molly Moore, "Open Doors Don't Yield Equality", The Washington Post, September 24, 1989, p. A16.

These test prove that men perform better than women on combat related tests of physical ability. However, it does not prove whether women have sufficient ability to keep pace with the battlefield demands of the infantryman. There are some tests whose evidence would make it difficult to make the argument that very many women could.

¹¹ Rosabeth M. Kanter, "Some Effects of Proportions on Group Life: Skewed Sex Ratios and Responses to Token Women", American Journal of Sociology, 82, #5, 1977, p. 966.

¹² Kanter's field study looked at saleswomen in a male-dominated sales force. The sales force had a particularly strong culture, both formal and informal. It also gave Kanter the opportunity to observe the women dealing with two sets of males, fellow salesmen and male customers. Kanter observed and interviewed 16 women and 40 men. Observations in work and social settings were approximately 100 hours. Kanter tested for three things: the perceptions of the tokens by the dominant group members, the pressures imposed on the tokens, and the typical token responses to the group. She looked at three perceptual phenomena: visibility, polarization, and assimilation. Kanter, p. 966, 970-1.

¹³ Kanter, p. 966.

¹⁴ Ibid., p. 965.

¹⁵ Ibid., p. 985.

¹⁶ Ibid., p. 969.

¹⁷ Kanter tested three hypotheses. They were:

1) for visibility, there is a "law of increasing returns" meaning that as individuals of their type come to represent a *smaller* numerical proportion of the group, they potentially capture a *larger* share of the group members' awareness.

2) for polarization, the presence of a person bearing a different set of social characteristics makes members of a numerically dominant group more aware both of their commonalities with and their difference from the token. There is a tendency to exaggerate the extent of the differences, especially since the tokens are powerless to prevent generalizations and stereotypes from forming.

3) for assimilation, the characteristics of a token tend to be distorted to fit the generalization. If there are enough people of the token's type to let discrepant examples occur, it is possible that the generalization will change to accommodate the accumulated cases. But if individuals of that type are only a small proportion of the group, it is easier to retain the generalization and distort the perception of the token. Kanter, pp. 971-2.

¹⁸ Ibid., p. 972.

89 Ibid., p. 973.

90 Ibid., p. 973.

91 Ibid., p. 974.

92 Ibid., p. 974.

93 Ibid., p. 975.

94 Ibid., p. 975.

95 Ibid., p. 976.

96 Ibid., p. 976.

97 Ibid., p. 977.

98 Ibid., p. 977.

99 Ibid., p. 977.

100 Ibid., p. 978.

101 Ibid., p. 978.

102 Ibid., p. 978.

103 Ibid., p. 979.

104 Ibid., p. 980.

105 Ibid., p. 981.

106 Ibid., pp. 981-2.

107 Ibid., p. 982.

108 The seductress role is a male perception. The women herself may not be consciously behaving seductively. Kanter, p. 982.

109 Ibid., p. 982.

110 Ibid., p. 983.

111 Ibid., p. 983.

112 Ibid., p. 983.

113 Ibid., p. 984.

- ¹¹⁴ Ibid., p. 984.
- ¹¹⁵ Ibid., p. 987.
- ¹¹⁶ Ibid., p. 987. In another study, Rottman found that women do not have the same social support in non-traditional areas compared with women in traditional areas, hence they may experience more stress. He reasoned that this may be an explanation for higher first term attrition rate among women in the Army. This is in spite of the fact that women have expressed higher intentions to reenlist than men. Mary Sue Hay, and Charles G. Middlestead, "Women in Combat: An Overview of the Implications for Recruiting", Research Report 1568, Alexandria, VA: U.S. Army Research Institute, July 1990, p. 17 (ARI #1668).
- ¹¹⁷ Mady Wechsler Segal, "Women in the Military; Research and Policy Issues", Youth & Society, 10, #2, December 1978, p. 115.
- ¹¹⁸ Ibid., p. 115.
- ¹¹⁹ L. Oliver, "Effect of Intergroup Contact on Attitude Toward the Role of Women in the Army", Research Report 1330, Alexandria, VA: U.S. Army Research Institute, 1982 (ADA138993).
- ¹²⁰ Moskos, pp. 30-31.
- ¹²¹ Goldman, p. 227.
- ¹²² Goldman, p. 229.
- ¹²³ Henry C. Shirah, "Operational Aspects of Desert Shield and Desert Storm", Carlisle Barracks, PA: United States Army War College, 12 March 1992, p. 37 (ADA250007).
- ¹²⁴ Diana W. Smith, and Debra L. Mowery, "Women in Combat: What Next?" Newport, RI: Naval War College Paper, 16 June 1992, pp. 13-16 (ADA250268).
- ¹²⁵ Peter Slavin, "Side by Side (Men and Women in the Military Serving in Close Quarters)", Air Force Times, 50, #25, January 29, 1990, p. 45.
- ¹²⁶ MAJ R.E. Park, "Final Report of the Social/Behavioral Science Evaluation of the Swinter Land Trial", Willowdale, Ontario, Canada: Canadian Forces Personnel Applied Research, Research Report 85-1, April 1985, p. 39.
- ¹²⁷ Ibid., p. 39.
- ¹²⁸ Soraya S. Nelson, "Canadian Infantry an Option for Women, but Most Flunk Out", Air Force Times 50 no 39, 10 September 1990, p. 18.
- ¹²⁹ Moskos, "Army Women", p. 77.

The vast majority of women who try to become infantryman in Canada cannot, because they lack stamina and endurance. The Canadian infantry remains an option for women who wish to apply, but those women must meet man's physical-performance standards during recruitment and recruit training - a policy change ordered in April [1990]. The policy was changed after 45 out of 48 female recruits last year flunked infantry training during a trial run for women seeking combat-related jobs. Only one graduated and two remain in infantry-specific training. Body size and muscle development was not sufficient to carry the equipment over the distances required of an infantryman nor to sustain the required activity level. Those who made it to the final week of the course became too fatigued by the third day of the final 10-day exercise to continue. The women pulled out of training were given a second chance at the course, which improved their performance but not enough to pass. In Soraya Nelson, p. 18.

Only in infantry training have the Canadian Forces found a significant failure rate among female candidates. Of the 40 who have attempted it only one woman so far has been able to complete the 16-week infantry training course. Other combat arms seem to have attrition rates similar to those of men. The authors of the report thought there were two reasons for this failure rate. First, poor recruiting and screening lead women to believe the infantry was something different than it was. Second, the stamina limitations of the women trainees prevented them from successfully completing the course. Women's fitness standards (since they were too low for infantry training) caused the women to enter the 16-week course at a lower state of readiness. Consequently, there are too few to provide convincing evidence on cohesion. In Hay and Middlestead, p. 19.

¹³⁰ Karen O. Dunivin, "Adapting to a Man's World: United States Air Force Female Officers", USAFA, Colorado Springs, CO: Department of Behavioral Sciences and Leadership, October 1989, p. 1.

¹³¹ Ibid., pp. 4-5.

¹³² Ibid., p. 7.

¹³³ Ibid., p. 8.

¹³⁴ Ibid., p. 8.

¹³⁵ Moskos observed that female officers were less concerned with privacy than were female soldiers. He attributed this to two things. First, that female officers were less likely to have their privacy invaded. Second, he thought it was indicative of the female officers' attempt to minimize the differences between men and women. In Charles Moskos, "Female GI's in the Field", Society, #22, 1985, p. 31.

¹³⁶ Moskos, "Army Women", p. 74.

¹³⁷ Molly Moore, "Attitudes of Male-oriented Culture Persist as Grievances Go Unreported", The Washington Post, September 25, 1989, p. A9.

¹³⁸ Grant Willis, "Harassment: Rewriting Regulations Said Part of Strategy", Air Force Times, 51, #13, November 5, 1990, p. 15.

¹³⁹ Hay and Middlestead, p. 8.

140 CACDA introduced the notion of collective physical fitness for small units. As a result of women's lesser physical capabilities and in order to maintain combat effectiveness of units with heavy physical strength requirements, they recommended no greater than 30% females serve as members of that unit. In very heavy physical requirement units (infantry division's, both heavy and light, being among these units), they recommended that the female population exceed no more than 10%. Females possess about two-thirds the physical strength of males even after a period of rigorous physical conditioning. Although there are weak men the "helping hand" factory is available (i.e. a stronger buddy). This becomes a concern when the population of weaker soldiers becomes more dense and the "helping hand" becomes less dense. This is a concern with field commanders, but they are suppressing the reports. Units perform well when there is a female population between 10-20%. It becomes a problem when the unit is 30% or greater in the unit. Division of light and heavy tasks becomes difficult. The study cited one example in the medical support area. Medical battalion commanders have frequently reported difficulties in effecting timely and adequate mission accomplishment in field training with companies that have a high (35-60%) density of women soldiers. CACDA study, pp. III-2 to III-8.

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