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SPECIAL OPERATIONS FORCES MIXED-GENDER ELITE TEAMS

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SPECIAL OPERATIONS FORCES MIXED-GENDER ELITE TEAMS (SOFMET)

Examining socio-cultural dynamics of SOFMET



Project Leader: Dr. William Knarr
Primary Author: Dr. Jessica Glicken Turnley
Co-authors: Dr. Dona J. Stewart
Dr. Rich Rubright
Dr. Jason Quirin

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EXECUTIVE SUMMARY

Can SOF Mixed-gender Elite Teams Effectively Accomplish SOF Mission Objectives?

On 24 January 2013, the Secretary of Defense (SecDef) rescinded the 1994 Direct Ground Combat Definition and Assignment Rule (DCAR) that excluded women from assignment to units and positions whose primary mission is to engage in direct combat on the ground.¹ In doing so, the SecDef directed the opening of all occupational specialties (OS), positions and units to women; the validation of gender-neutral standards^a for those positions; and establishment of milestones for implementation. The SecDef marked 1 January 2016 as the implementation date for women to be integrated into newly opened positions and units. The memorandum stipulated that “Recommendations to keep an OS or unit closed to women must be approved by the [Chairman of the Joint Chiefs of Staff] CJCS and then the SecDef” and that those recommendations be “narrowly tailored, and based on a rigorous analysis of factual data....” That became this study’s null hypothesis: To support the contention that “Special Operations Forces mixed-gender elite teams could NOT effectively accomplish SOF mission objectives” and to document those cases. However, this study could not produce the factual data that would support the null hypothesis and, hence, any request for exception to policy. A word of caution: the results of this study must be heavily caveated due to the lack of data on mixed-gender SOF teams, reliance on studies based on mixed-gender combat service and combat service support units and teams from analogous occupations, and very small sample sizes. Additionally, the women who will qualify for SOFMET will be extra-ordinary women (just as the men are extra-ordinary men) and so will not fall into the distributions developed by studies on the general population.

The following summarizes the Center for Special Operations Studies and Research (CSOSR) task, research, analysis, conclusions and recommendations.

Research Question and Approach

In a March 2013 memorandum, Commander USSOCOM directed several initiatives as a result of the SecDef’s DCAR rescission. As part of those initiatives, the Joint Special Operations University (JSOU) was directed to focus its research on team dynamics, that is, “research and analyze the social science impacts...of integrating women into small, elite teams that operate in remote, austere environments.”²

Within the context of the above guidance, the JSOU Center for Special Operations Studies and Research (CSOSR) Research Team, hereafter called the Research Team, examined

^a The correct terminology here would be ‘sex-neutral’ not ‘gender-neutral’ as the issue is physiological not valued-behavior standards. However, we will follow the usage in the SecDef’s memo for this study. Note: Footnotes are used for clarification or additional information and use the lower case alphabet. Endnotes are for citation and use numbers.

team dynamics, rather than individual performance. The challenge for this study was to determine if changing the gender component of SOFMET from single-gender (masculine) to mixed-gender would affect team dynamics in a way that would compromise the ability of the team to meet a mission objective. The research question was:

Can special operations forces (SOF) mixed-gender elite teams effectively accomplish SOF mission objectives?^b

This study assumed that all members of the team met the same gender-neutral selection and assessment standards and qualified to be on SOFMET. The study also assumed that those tasks and standards had been validated against operational requirements.

This study began with a 27 March 2013 Initial Review that provided a high level assessment of existing research on the effects of gender integration on small team dynamics.³ As a result of that review, the Research Team narrowed the scope of its investigation to three variables, focused its efforts on assessments of analogous units, and expanded its data collection plan to include interviews and a target of opportunity survey.

Variables of Interest

Although there are many variables that affect team dynamics, this study selected three of those variables because they surfaced most frequently in the literature: 1) gender-sex distinctions, 2) cohesion, and 3) institutional/organizational pressures. The gender-sex distinction was selected as it is the social implementation and cultural valuation of sex categories (male and female) and associated behaviors that lay behind the original exclusion of women from combat, and it was changes in those valuations which prompted the recent opening of combat positions/units to women. Cohesion is a relevant topic as it is reflected in the CJCS memorandum (“preserving unit readiness, cohesion, and morale”) and has figured as a concern in historical attempts to integrate other groups (such as racial minorities) into the military. Finally, our selection of institutional and organizational pressures as an important variable recognizes the force that collectivities such as Congress, USSOCOM, and the individual military services and units can exert on the behavior of small teams and individuals.

Gender/Sex Distinction

Sex and gender need to be clearly differentiated. Sex (male/female) describes observable characteristics and defines biological categories, while gender (masculine/feminine) is ‘performative’ and defines social categories. Sex or sex category is what one is and does not change from situation to situation. Gender, on the other hand, is a set of behaviors that are

^b Answering this question requires careful definition of each word or phrase within the question, such as mixed-gender, SOF teams, effectively, and others and are discussed in detail in Chapter 3.

culturally associated with sex categories and thereby given value. For example, people in Western countries, including the U.S., generally associate bravery, repressed emotions, strength, and assertive behavior with males. This is called masculine behavior. These same populations generally associate nurturing, compassionate, weakness, and retiring behaviors with females, calling it feminine behavior. These behaviors are what one does, not what one is. Gender thus is the social presentation and display of sex category.⁴

It is when sex is conflated with gender that social interaction becomes problematized.⁵ When people engage with others on the basis of sex categories (engage with someone as a female) and assume the association of valued, gendered behaviors with that sex category (as a female, she should act in certain ways), expectations are created that may or may not be valid.⁶ Females can exhibit strong and assertive behavior, just as males can be nurturing and compassionate. Although sex and gender are related, they are distinctly different and strategies for teams to cope with each are different.

Gendered occupations emerge when optimal performance in an occupation means exhibition of behaviors synonymous with a gender.⁷ The military is recognized as a highly gendered occupation – optimal performance in combat (the defining military behavior) requires exhibition of behaviors that most people comfortably define as masculine.

The discussion of sex and gender and sex- and gender-linked qualities then sets up a discussion on ‘diversity,’ i.e. teams composed of different genders. Do males and females on teams similar to SOF exhibit different, gender-defined behaviors? If so, do these gendered behaviors negatively impact team performance?

There is very little research directly addressing the effect of gender on team performance.⁸ Therefore, to address this question, the Research Team looked at studies performed on mixed-gender teams operating in environments analogous to those in which special operations teams operate, and held interviews with members of mixed-gender teams performing today. Results will be discussed in more detail in the paragraph on analogous units.

Very small numbers of females in the SOF selection pools can raise the possibility that those females, if considered members of a low status minority, will be viewed as tokens, symbols of a category (females) rather than as fully qualified individuals, and consequently be subjected to discriminatory, harassing and exclusionary behavior.⁹ De-gendering an occupation by establishing gender-neutral standards truly reflective of requirements for the success of missions is an important step towards removing incentives and opportunities for gender harassment. Establishment of mission-defined, gender-neutral standards for SOF will define what it means to be an operator, to be mission-capable, not what it means to be a man or woman.

Cohesion

General Dempsey's first guiding principle in his memorandum opening combat positions to women was to "preserv[e] unit readiness, cohesion, and morale." The Research Team examined the concept of cohesion and its significance for team dynamics in military settings.

Cohesion has been categorized as vertical and horizontal.¹⁰ Vertical cohesion exists between a leader and followers. The connection a leader can establish with his subordinates and the relationship of the leader with his superiors and peers is an important mechanism for all participants to engage with the larger institution. Vertical cohesion influences horizontal cohesion and underscores the importance of leadership in creating cohesion within the unit.¹¹ Horizontal cohesion can be characterized as social cohesion or task cohesion.¹² Social cohesion describes how well members of the group like each other, their emotional connection; task cohesion describes the bonds that arise among individuals cooperating to achieve common goals.¹³

The relationship between task cohesion, social cohesion and performance is complex. In general, task cohesion is believed to positively influence performance more than social cohesion. Social cohesion is not reliably associated with improved performance and can, in fact, have a negative impact on performance.¹⁴ High social cohesion can lead to groupthink or situations in which the group may adopt attitudes and values that differ from that of the organization.¹⁵ While some level of social cohesion appears necessary, too much may be problematic.

There are a number of methodological challenges for drawing conclusions relevant for SOF from this research. First, although there has been a reasonable amount of research on cohesion in military units,¹⁶ the research was not conducted on the types of units with which this study is concerned – small, elite units operating in austere environments. So while there may be generalizations to SOF units that can be made from the research on cohesion in general and on the military in particular, a couple of the studies raise the possibility that there may be differences between general military units and special operations units that affect the development of cohesion.¹⁷ Secondly, much of the research on cohesion, including some targeting the military, was conducted in the 1980s and 1990s, and may not be reflective of current social attitudes towards diversity (gender and other forms) within the military. Team dynamics are also influenced by, and influence, organizational culture and climate. Finally, as of this writing there are no scientific studies of gender-integrated U.S. combat units. However, considerable research has been done of gender-integrated military groups in noncombat roles. In general, the research found no negative impact on cohesion.¹⁸ That said, there is a recognition that it is possible (although not known how probable) that the role of gender in cohesion will play differently in actual combat units and situations.¹⁹

Organizational Culture

The directive driving this study is concerned technically with allowing women to serve in certain positions or units. However, the critical change in SOF organizations will come when definitions of gender-appropriate behavior change.

As already discussed, gender is a set of valued behaviors associated with sex or biologically defined categories. Gender thus is a cultural category – part of an organization’s frame of reference, its understanding of what in its environment is important to it, and how it should engage with those elements. This is the organization’s culture, the shared understanding among members of that organization of the work environment, including common assumptions and beliefs of its members. Although culture is expressed through behavior and embodied in artifacts, its locus is in the members’ values and attitudes which drive their behavior and imbue the artifacts with meaning.²⁰

Social organizations are dynamic, complex, quasi-open systems, constantly evolving through exchanges of information, personnel and other elements with their environment.²¹ Organizational culture change is a term used for an integrated, deliberate organizational change program usually focused around an externally stimulated, discontinuous change such as the issuance of the policy which drove this study. Although the ultimate target of culture change efforts is a change in behavior, the actual target is the values and attitudes of the members of the organization. These values and attitudes are expressed through (i.e. guide and constrain) behavior.²²

It is imperative for successful organizational culture change that senior leadership establish a clear and strong vision of the ‘changed organization,’ and empower members of the organization to support the new vision through the provision of policies, procedures and other organizational mechanisms. Leadership down through the ranks and across the organization must subscribe to and support the new values, appropriately rewarding inclusionary behaviors and punishing exclusionary behaviors such as sexual harassment and gender discrimination.²³

Development of the vision requires a clear and persuasive description of a force that is benefiting from and can provide benefit to the females on the teams. Leadership at all levels must commit to the potentially years-long effort to change the values and attitudes related to the gender identity of the special operator.

Analogous Units

This study reviewed research and lessons from non-military and other military organizations on how they have integrated, tried to integrate, or are integrating women into their combat, combat-like, or analogous elite team formations. As such, the question parallel to the research question became:

What research has been conducted and what lessons can we learn from others (and apply to SOF) who have tried to form, formed, or are forming, mixed-gender elite teams?

The Research Team looked at occupations whose mission or performance space has aspects analogous to those found on SOF missions.

All the research on mixed-gender teams in environments analogous to those in which SOF will operate must be heavily caveated. The team's internal dynamics are only one element in a very complex system including variables ranging from the natural (the environment) to the human (adversaries, allies, institutions, and the like) that will influence the team's ability to perform its mission. The small number of analogous teams presents problems for the extensibility of our findings to SOF. Furthermore, the number of women who qualified for those teams and who will be able to pass selection for SOF teams is going to be extremely small, further compromising the extensibility of this research.

The National Aeronautics and Space Administration (NASA) performed extensive research over the years on team composition, looking for the optimal conformation for long-duration space flight (for trips to Mars, for example). NASA participates in research conducted at a research station on Devon Island in northern Canada where the Mars Society, a private non-profit organization, has created a simulated habitat and where researchers can conduct fairly controlled experiments.²⁴ NASA's researchers also studied polar expeditions and parties overwintering in Antarctic research stations.²⁵ In addition to using NASA's studies, this study looked at other material on polar expeditions (both Arctic and Antarctic) and overwintering parties.²⁶

There is some research on gender and performance available on high-altitude mountaineering teams and Himalayan trekking teams. All-female and mixed-sex teams are relatively new in Himalayan mountaineering, and have received some special attention.²⁷ There is a small body of literature on the performance of females on offshore oil rigs which treats the rigs as a strongly masculine (gendered) occupation and explores women's performance in these environments.²⁸

Women's achievements in these gendered occupations demonstrate that there are women – albeit much fewer than the number of men – who are physically able to manage the tasks, have the mental fortitude required, and will take the personal and family risks necessary to succeed at what had historically been considered male-only activities. How they accomplish the tasks and whether those methods are different than those of their male counterparts remain to be determined. The research also showed, although caveated by sample size and the difficulties of isolating gender as an independent variable, that males and females exhibit somewhat different strategies for coping with stress, and that males tend to be more competitive than females.

However, the mix of genders on teams did not appear to be a defining variable in team performance in any of the cases examined in the literature.

During the Research Team's Initial Review, it became obvious that very few militaries and law enforcement agencies have integrated women into mixed-gender elite teams, and for those that have, very little information is available to the public; hence, the Research Team used interviews to obtain that information. Interviews were performed with members of existing SWAT teams in the FBI, Canadian Special Operations Forces (CANSOF), and the Smokejumpers, an elite group of forest fire fighters. Two of the organizations (FBI SWAT and Smokejumpers) have had mixed-gender teams for decades. CANSOF has recently integrated. In no case did respondents report that performance was compromised because of females on the teams. All emphasized the importance of gender-neutral selection standards, and the absence of quotas. Some respondents mentioned incidents of sexual harassment, although in all cases, the women involved dealt with them quickly. Finally, although there were reports of early female recruits to the FBI and Smokejumpers feeling effects of tokenism (such as increased scrutiny), these effects have generally proved transient and today the teams are functional and appear comfortable with mixed-gender composition.

Conclusions

There are a number of factors that affect team dynamics such as gender/sex conflation, leadership, working conditions, attitudes of team members towards gender integration, and organizational/culture pressures. However, the existing data does not support the contention that *SOF mixed-gender elite teams cannot effectively accomplish SOF mission objectives.*

In the long term, the inclusion of females on SOF elite teams is about building mission-capable teams. The review of analogous teams showed mixed-gender teams performing effectively in high-stress, austere environments similar on dimensions to those U.S. SOF will face. Again the number of mixed-gender teams available for review was very, very small, and there are difficulties isolating gender as an independent variable. Although the research showed the desired future is possible, there are areas to which SOF leadership will need to attend as gender integration goes forward.

Recognizing the differences between sex and gender is critical to successful integration. For integration to be successful, all operators must be engaged on the basis of actual, not expected capability. Females must not be assigned to particular jobs or kept away from others on the basis of their femaleness, only on the basis of capability. And quotas which require accommodation of females who may be of lesser capability than males will create tokens. In this case, the females likely will experience ostracism, role typing and hostility. As much as possible, enhanced scrutiny of females and their units should be avoided.

Team cohesion is as much about the dynamics of men working with and for women (and the associated changes in conceptions of gender identity that entails) as it is about women working with and for men. Assessment and selection criteria may need to consider the willingness and aptitude of candidates working in a mixed-gender environment. This will help minimize the potential sex- and gender-harassment. Maturity of the force and a focus on professionalism are key to mitigating adverse team dynamics, including sexual assault.

Changing conceptions of gender identity and any values or attitudes that preclude females from being perceived as full players must start with a strong vision of a force enhanced and improved through integration. Leadership at all levels is critical to changing organizational values. USSOCOM must recognize that it has indirect or no control over many of the individuals who hold the values it seeks to change, and must work through others to influence them. Finally, leadership must realize that the complex, dynamic nature of social organizations means that there will be unintended negative consequences of many actions taken for all the right reasons. Organizational culture change can take decades (note some of the problems in the military academies which have had women students for up to 30 years) and can be a very difficult process.

Sustaining a professional force through the promulgation and support of mission-validated, gender-neutral standards will be critical to the integration of the SOF elite teams. If this professionalization is supported by a clear and compelling vision of a gender-integrated force constructed around improved professional capability, the SOF community will begin the journey towards gender-integrated, fully effective elite teams.

Recommendations

SOFMET should be constructed and managed within an environment that will allow them to function professionally and accomplish the wide variety of missions encountered by these teams. To increase the likelihood of this happening, the research covered in this report leads to the following recommendations:

- Develop and promulgate a clear vision of a force improved through the inclusion of females on SOFMET
- Separate successful mission performance from the presentation of gendered behaviors or attributes. Do not allow gender-defined behaviors to dominate team dynamics
- Focus on validated performance standards and mission requirements
- Take advantage of the skill-sets women are more likely than men to bring to the table; but exploit those attributes when found in any SOF personnel
- Recognize that sexual harassment and gender discrimination may happen: Work to actively prevent through de-gendering activities and inculcation of respect for full-performing professionals

- Shape and mature the future force through training, education, and policy development
- Prepare for the long term; the effort may take as long as a decade or more; there may be initial transitory negative responses—be prepared to manage them.

The maturity of the force as expressed through their professionalism and respect for qualified operators regardless of gender will be key to mitigating adverse gender-related team dynamics. The special operations community needs to evolve to a culture where there are no female special operators—where all qualified team members are known as special operators, a gender-free term referring to a member of an elite team. All SOF leadership must be involved in this change, recognizing that full acceptance of females on any and all teams may be as far away as ten years in the future. Leadership must be prepared for problems in the short term—but the research shows that there is no reason to believe that the force cannot look forward to long-term institutional success.

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Can SOF Mixed-gender Elite Teams Effectively Accomplish SOF Mission Objectives?

Examining the socio-cultural dynamics

“People are more important than hardware.”

One of five SOF Truths

1. INTRODUCTION

On 24 January 2013, the Secretary of Defense (SecDef) rescinded the 1994 Direct Ground Combat Definition and Assignment Rule (DCAR) that excluded women from assignment to units and positions whose primary mission is to engage in direct combat on the ground.²⁹ In doing so, the SecDef’s memorandum directed the opening of all occupational specialties (OS), positions and units to women; the validation of gender-neutral standards for those positions;^c and established milestones for implementation. The SecDef marked 1 January 2016 as the “no-later-than” implementation date for women to be integrated into newly opened positions and units. The memorandum further stipulated that “Recommendations to keep an OS or unit closed to women must be approved by the CJCS [Chairman of the Joint Chiefs of Staff] and then the SecDef” and that those recommendations be “narrowly tailored, and based on a rigorous analysis of factual data regarding the knowledge, skills and abilities needed for the position.”

During 6 March 2013 discussions at the Joint Special Operations University (JSOU), Major General Bennet Sacolick, USA, then Director, Force Management and Development Directorate, United States Special Operations Command (USSOCOM), indicated that USSOCOM Headquarters staff and USSOCOM components were conducting studies on the validation of individual tasks and capabilities associated with gender-neutral standards. He directed that JSOU focus its research on team dynamics. This task was further refined in a 22 March 2013 Commander, USSOCOM memorandum to Service Chiefs: “I have also tasked my Center for Special Operations Studies and Research in our Joint Special Operations University to research and analyze the social science impacts, to include surveys, of integrating women into small, elite teams that operate in remote, austere environments.”

Within the context of the above guidance, the Center for Special Operations Studies and Research (CSOSR) Research Team, hereafter called the Research Team, examined team dynamics, rather than individual performance. The research and analysis focuses on the relevant,

^c The correct terminology here would be ‘sex-neutral’ not ‘gender-neutral’ as the issue is physiological not valued-behavior standards. However, we will follow the usage in the SecDef’s memo for this study. Note: Footnotes are used for clarification or additional information and use the lower case alphabet. Endnotes are for citation and use numbers.

complex, and confounding attributes of intra/inter team dynamics to include the effects of outside organizations and influencers such as culture. The research question is:

Can special operations forces (SOF) mixed-gender elite teams effectively accomplish SOF mission objectives?^d

The study begins with background on the action that prompted this study, discusses the primary research question, hypothesis and methodology and then follows with the analysis, conclusions and recommendations.

^d Answering this question requires careful definition of each word or phrase within the question, such as mixed-gender, SOF teams, effectively, and so on, and is discussed in detail in Chapter 3.

2. BACKGROUND

Guidance to the military from the CJCS and the SecDef during January 2013 opened all direct ground combat positions previously closed by specialty or unit to women, with implementation required by January 2016 unless the Service is granted an exception by the SecDef. According to General Dempsey, CJCS, this expands the opportunities for women to serve in the United States armed forces and better aligns “our policies with the experiences we have had over the past decade of war...Ultimately, we’re acting to strengthen the joint force.”³⁰

The 9 January 2013 memorandum from General Dempsey to the SecDef making the recommendation to open the ground combat positions and units to women and providing the rationale for the recommendation listed five guiding principles. They are to:

- Ensure the success of our Nation’s warfighting forces by preserving unit readiness, cohesion, and morale;
- Ensure all Service men and women are given the opportunity to succeed and set up for success with viable career paths;
- Retain the trust and confidence of the American people to defend this nation by promoting policies that maintain the best quality and most qualified people;
- Validate occupational performance standards, physical and mental, for all military occupational specialties....Eligibility....should....reflect....the knowledge, skills and abilities necessary for each occupation;
- Ensure sufficient cadre of women enlisted and officers are assigned to commands at the point of introduction to ensure success in the long run.³¹

Note that of the five principles, the first and the third directly address readiness of the force. The first calls for preservation of what may be presumed to be current levels of unit readiness, cohesion and morale, while the third is a call for gender-blindness in selection. The second principle is a statement of equal opportunity for men and women and the viability of career paths. The fourth refers to readiness, albeit indirectly, requiring that the standards for each position be validated against OS requirements, and the last provides for mentors and institutional support.

Consistent with the service-like requirements that accompany its Major Force Program 11 (MFP-11) responsibilities, USSOCOM was explicitly charged by the memorandum to open its closed positions and units or provide justification as to why any or all of them should remain closed. The number of closed positions by OS is reflected in Table 1.

Table 1: Impacted occupations in USSOCOM

MOS	Title	ACTIVE Closed	GUARD Closed	RESERVE Closed	Total Closed
13CX	Special Tactics Officer	120	8	0	128
15WXC	Special Operations Weather (Officer)	18	0	0	18
1CXX	Combat Control	602	65	0	667
1WOX2	Special Operations Weather (Enlisted)	122	42	0	164
18XX	Special Forces (Army)	7153	2306	0	9459
11X	Infantryman – Ranger (Army)	2277	0	0	2277
037X	Critical Skills Operator (USMC)	928	0	0	928
1130/7150 / 5326	Special Warfare Officer/ Warrant Officer/ Enlisted (UDT/SEAL) (Navy)	3394	0	537	3931
7170/5325	Special Warfare Craft Crewman Warrant Officer/Enlisted	942	0	11	953

Note: This table lists the number of occupational specialties (9) and positions (18,525) closed to women. Extracted and modified from USSOCOM Commander’s Memorandum for the Assistant Secretary of Defense for Special Operations and Low Intensity Conflict, Subject: 4th Quarter Fiscal Year 2013 Report, Elimination of Gender Restrictive Assignment Policy, date 9 October 2013.

3. RESEARCH QUESTION, ASSUMPTIONS AND HYPOTHESES

Consider the following scenario:

It is 15 January 2018 at Fort Campbell, Kentucky. You are Captain Smith, SFODA [Special Forces Operational Detachment Alpha] Commander, it is Monday morning and you are at the battalion headquarters. Your Team Sergeant approaches and says, “The new operator is at the team room checking in. When do you want to meet her?” You knew she was coming. You’ve seen her records; she is highly qualified: staff sergeant, previously in the engineers, Sapper Leader Course honor graduate. You know that she is one of very few women to complete the rigors of qualification and the first female operator in your group. You also reflect on the policies, education and training of the past several years to prepare you and your team for this day. Have the conditions been set for success? Can this be successful?

This hypothetical scenario assumes that the policy decision to open all occupational specialties (OS) and units to women is fully operationalized through their assignment to Special Operations Forces (SOF) elite teams. It provides a critical perspective from the level of the lowest organizational entity where the policy must actually be implemented to assess the SOFMET environment. Have all the potential barriers to fully operational and effective SOFMET been reconciled? If so, how; if not, why not?

It’s important to acknowledge at the outset of the study that women currently are present in strength within the USSOCOM enterprise at all levels, deployed and operating in combat zones for more than a decade. The purpose of this study is to illuminate the specific OS/unit aspects of mixed-gender team dynamics that may potentially compromise mission effectiveness. The aim is to provide SOF commanders with insights that will inform their decision-making as they respond to the CJCS and SecDef’s memorandum. The following provides the study research question, a definition of terms, assumptions, and the research hypothesis.

3.1 Research Question

Can SOF mixed-gender elite teams effectively accomplish SOF mission objectives?

The following defines terms in the primary research question in order to provide the study foundation and focus:

- SOF Mixed-gender elite teams: Male(s) and female(s) assigned to the same team, Operational Detachment Alpha (ODA), SEAL Team, Marine Special Operations Team (MSOT) and Special Tactics Team (STT)

- SOF missions: Includes SOF activities such as counterterrorism (CT), direct action (DA), special reconnaissance (SR), foreign internal defense (FID), counterinsurgency (COIN), and unconventional warfare (UW)^e
- SOF mission objectives: Mission objectives are expressed in terms of task, conditions, standards found in applicable Mission Essential Tasks Lists (METL) and linked to the authorized mission sets referenced above^f
- Effectively: The sustained capability of a team to accomplish mission objectives defined above and includes:
 - Social influences and other variables that affect team dynamics with a particular focus on the variables of social-culture adaptation (gender-sex), cohesion, and institutional/organizational pressures and how these three variables effect team dynamics and impact the ability of the team to accomplish its mission
 - Intra/inter team dynamics: between team members, between teams, between teams and other influencers, organizations and cultures

3.2 Assumptions

This study assumes that all members of the population from which SOF draw to form teams have met the same selection and assessment standards and have qualified to be on SOFMET.^g The study further assumes that these standards are gender-neutral—both males and females meet the *same set* of standards. The standards are not gender-normed,^h i.e. the assessment does not adjust the standard for sex (make a physical standard ‘easier’ for females, for example) or measure a proxy, allowing, for example, level of effort against a task (where the task could be gender-defined) to stand in for performance of the task. It also assumes that those tasks and standards have been validated against operational requirements.

As the scenario suggests, this study assumes operators in the selection pool have already been assessed on their abilities to work as part of a team as they underwent and completed various qualification courses. Their introduction to a team in the field is not the first time they have been part of a team. However, working as a team under conditions subject to the stresses and uncertainties of a field environment is very different than working with the same individuals in a regulated and monitored institutional training environment. This study explores team

^e As reflected in DOD 5100.1 and Title 10, USC 167.

^f Linkage of METL/Joint METL to SOF activities expressed in DOD 5100.1 and Title 10, USC 167 is via the Universal Joint Task List (UJTL)/Service Universal Task Lists (UTL). METL is a compilation of collective mission-essential tasks that must be successfully performed if an organization is to accomplish its wartime mission (JP 1-02).

^g Those standards are currently being validated against mission requirements by service components.

^h This should actually read ‘sex-normed.’ As shall be shown later in Chapter 6, when standards are sex-normed, the adjustment in standards would be made on the basis of biological features presented by the candidate, not his/her social behavior. However, this discussion follows convention here and uses the term ‘gender-normed.’

dynamics in the unmonitored, stressful field environmental conditions likely to be encountered by special operators.

3.3 Hypothesis

From the research question, the research hypothesis is:

SOF mixed-gender elite teams can effectively accomplish SOF mission objectives.

The challenge for this discussion is to demonstrate whether or not the mixed-gender component of team dynamics will compromise the ability of a mixed-gender team to meet a mission objective. That is best done by supporting or rejecting the null hypothesis:ⁱ

SOF mixed-gender elite teams cannot effectively accomplish SOF mission objectives.

The null hypothesis focuses the effort on providing examples for which SOFMET *cannot* accomplish the mission, i.e., by identifying those mission objectives as defined above and their independent variables that have a high probability of compromising mission effectiveness (the dependent variable).^j

If the results reflect that the independent variables are compromising the ability of a mixed-gender team to meet mission objectives, then the follow-on question becomes: Are the effects transient or enduring; in either case can their impact be mitigated?

ⁱ Rather than testing all of the missions to see whether the SOFMET can accomplish them all, the researcher searches for the one mission, with associated tasks, conditions and standards that the SOFMET can't perform as a result of the mixed-gender dynamics. This will be discussed in more detail in the chapter on Conclusions and Recommendations.

^j As an example, if the research hypothesis suggests that "all swans are white," then the research focuses on looking for those non-white/ black swans and their associated variables.

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4. APPROACH: VARIABLES, ANALOGOUS UNITS AND LIMITATIONS

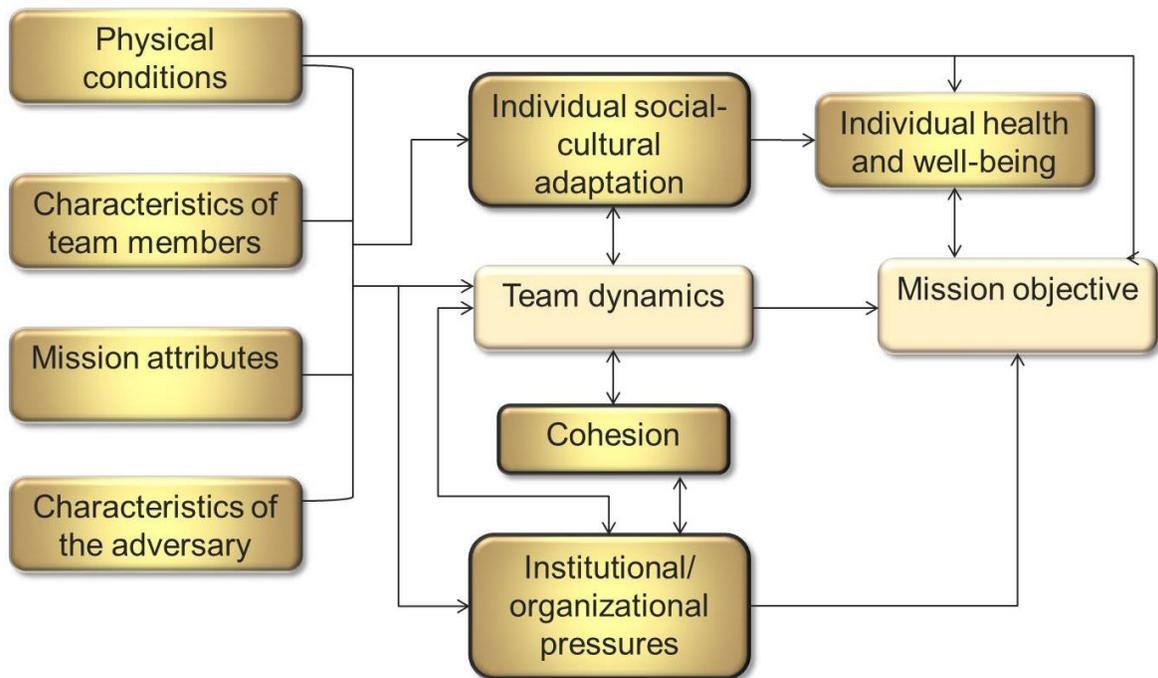
This study began with a 27 March 2013 initial, high-level review for Major General Sacolick that assessed existing research on the effects of gender integration on small team dynamics.³² It drew upon a review of academic literature and the experiences of foreign militaries as a basis for developing the research question, hypothesis, and approach. That initial review, in combination with USSOCOM's tasking to the components, JSOU, and RAND, and a request for CSOSR to host a Women in Service (WIS) Community of Interest (COI) telecom intended to minimize research duplication and share findings, helped develop and scope the approach.^k As a result of these activities, the Research Team narrowed the scope of the investigation to three independent variables, focused its efforts on analogous units, and expanded its data collection to include interviews and a target of opportunity survey.

4.1 Variables of Interest

This study is interested in team dynamics *as they contribute to mission objectives*. While team dynamics are a factor in many other outcomes such as personal growth, career advancement of team members, this study is interested only in how team dynamics contribute (positively or negatively) to meet mission objectives. While some of the other outcomes (or inputs) of team dynamics (such as morale or family pressures) may serve as intervening variables, they are meaningful here only as they contribute to the achievement of mission objectives.

Although there are a multitude of variables that affect team dynamics, this study selected three independent variables that surfaced most frequently in the literature: 1) social-cultural adaptation (and specifically, gender-sex distinctions), 2) cohesion, and 3) institutional/organizational pressures. Gender/sex distinction was selected as it is the social implementation and cultural valuation of these categories and associated behaviors that lay behind the original exclusion of women from combat, and which prompted the recent opening of combat to women. Cohesion is a relevant topic as it is reflected in the CJCS memorandum ("preserving unit readiness, cohesion, and morale") and has figured as a concern in historical attempts to integrate other groups (such as racial minorities) into the military. Finally, institutional and organizational pressures recognizes the force that collectivities such as Congress, USSOCOM, and the individual military services and units can exert on the behavior of small teams and individuals. The study is organized in the same manner; looking at the individual (social-cultural adaptation: Gender-sex distinction), team (dynamics) and then the organizational (pressures). Figure 1 illustrates the study target and variables of interest.

^k Request was initiated by NAVSPECWARCOM and supported by the USSOCOM, FMD, the chair for the USSOCOM Women in Service Review COI.



Adapted from Sandal, Leon and Palinkas 2006, Fig. 1³³

Figure 1: Study target and variables of interest

4.2 Analogous Units

The Research Team reviewed research and lessons from other military and non-military organizations on how they have integrated, tried to integrate, or are integrating women into their combat, combat-like, or analogous elite team formations.¹ As such, the parallel question (to the research question) became: *What research has been conducted and what lessons can we learn from others (and apply to SOF) that have tried to form, formed, or are forming, mixed-gender elite teams?* Since research cannot be performed on U.S. SOFMET as these do not exist, the Research Team looked at teams in occupations whose mission or performance space has aspects analogous to those found on SOF missions. Examples include the following teams or groups: U.S. federal Special Weapons and Tactics and Hostage Rescue teams, Smokejumpers, Canadian Special Operations Forces, high-altitude mountaineering teams, polar expeditions, and Antarctic overwintering groups.^m The following formed the basis for the information requirements in the data collection plan:

¹ For brevity this was listed as lessons but includes observations and insights as well.

^m There are other examples, such as other militaries. This study selected the Canadian Special Operations Forces, because it has integrated women into its teams. During the CSOSR Initial Review the Research Team reviewed and summarized the status of other militaries, such the Australians and British that have considered, attempted or are integrating women into their own SOFMET.

- Review research and identify lessons from other military and non-military organizations that have integrated or are integrating women into their combat, combat-like or analogous mixed-gender elite teams.
 - Are there similar mission objectives, i.e., tasks, conditions, and standards?
 - If so, are those lessons relevant to our study? How? In what way? To what extent?
- Identify/evaluate positive and negative factors as a result of integration that are relevant to SOF.

During the Initial Review, it became obvious that very few militaries and law enforcement agencies have integrated women into their mixed-gender elite teams, and for those that have, very little information is available to the public; hence, the Research Team’s use of interviews to obtain that information. In fact, the greatest body of literature on gender integration of elite teams comes from research around team performance for long-duration space flight, much of which was based on research on polar expeditions and Antarctic overwintering groups. This study also looked at literature from high-altitude mountaineering, considered by many to be the most dangerous sport in the world and still a highly gendered one. Research on the highly gendered environment on offshore oil rigs provided background for the discussion on gendered occupations and some input to this section.

4.3 *Limitations*

All the research on mixed-gender teams in environments analogous to those in which SOF will operate needs to be heavily caveated. Intuition as well as the Initial Review indicated that the sample size for this study would be very small. The total number of teams overwintering in the Antarctic or attempting to summit Mount Everest is very small, for example, and the number of mixed-gender teams smaller yet. This research, therefore, is based on a collection of case studies of mixed-gender teams operating in analogous environments to SOF from which can be drawn indicative conclusions rather than a large population from which statistical predictions can be made.

In addition to the small number of analogous teams, the number of women able to pass selection for SOF teams is going to be extremely small. Physical abilities play an important role in SOF qualification courses, and given the average smaller body size and muscle mass of females, it can be expected that the candidate pool for SOF selection will be much smaller than that for males, and so the output of the qualification process will yield significantly few numbers. Figure 2 provides a notional illustration of the selection by SOF of individuals at the tails of the normal distribution of physical capabilities in the total population of males and females. This notional distribution will be discussed in more detail in the findings.

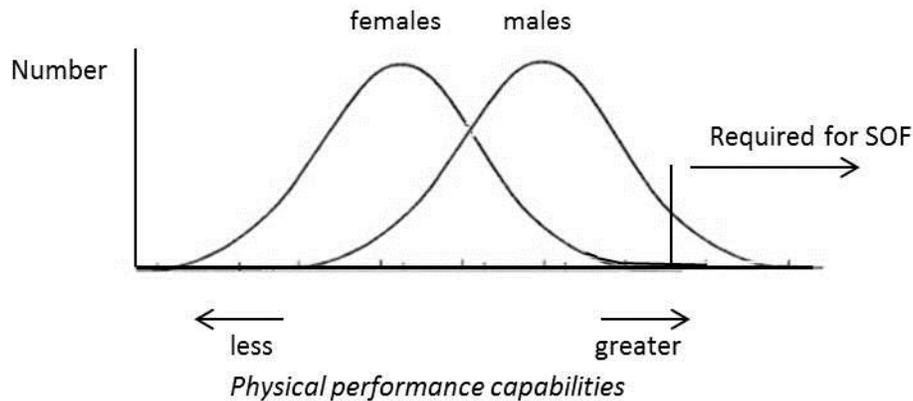


Figure 2: A notional illustration of the distribution of physical capabilities of males and females, and SOF requirements

Given that the number of teams in analogous occupations is very small, and the number of women on them smaller yet, the sample sizes are too small to make any generalizations about populations – the result is a series of case studies. In many cases, the studies are stories or anecdotes rather than presentations of scientifically rigorous research. Despite these strong caveats, this study chose not to supplement the research on mixed-gender teams operating in environments analogous to those SOF will encounter with findings from the general population. The women who make it into SOF selection and qualification processes will be atypical physically, mentally, and attitudinally. The women [and men] who make it through the selection and qualification processes will be even less typical still. Findings from the general population will not be applicable to this atypical population of females. Thus, although the data from the literature review require that the conclusions be heavily caveated, and in the absence of performing SOFMET from which primary data could be collected, the Research Team determined that use of the limited data of analogous teams was methodologically more justifiable than would be the application of findings from research performed on the general population.

The limitations on available information, the size of the sample and expected number of women candidates may be, in the opinion of decision-makers, insufficient upon which to base a decision. If that is the case, then research methods need to be expanded to allow a more focused effort through a pilot program or experimentation with control and experimental groups. This will be discussed further in the last chapter.

In addition to small sample sizes, the social context in which those teams operate is very complex. That is the subject of the next chapter.

5. DEFINING THE STUDY TARGET

The 1986 Public Law 99-661 enabling legislation for USSOCOM includes special operations activities such as direct action, unconventional warfare, foreign internal defense, and others.³⁴ Each activity is comprised of its own mission objectives, each of which requires particular capabilities for execution. Mission objectives can require capabilities significantly different in kind, ranging from physical skills for direct action to the interpersonal skills and cross-cultural competence required for influence or advisory missions such as foreign internal defense. Many special operations missions depend upon a spectrum of skills, e.g., requiring operators to recruit and lead members of local populations in active combat engagements (an unconventional warfare mission), engaging significant social as well as physical skills.

That spectrum of skills is what makes SOF ‘special’ and includes the ability of a special operations unit to exercise creativity, leverage resources (perhaps including the local population, the man-made and natural environments, and the operator’s own force), and demonstrate expertise in a military setting.³⁵ Special operators thus must be able to “play well with others” as well as act independently in order to exercise the “by, with and through”³⁶ approach that characterizes special operations. The USSOCOM website elaborates the first SOF truth: “Humans are more important than hardware,” and “the right people, highly trained and working as a team, will accomplish the mission with the equipment available.”³⁷ Effective team dynamics thus are vital to success of any special operations mission.

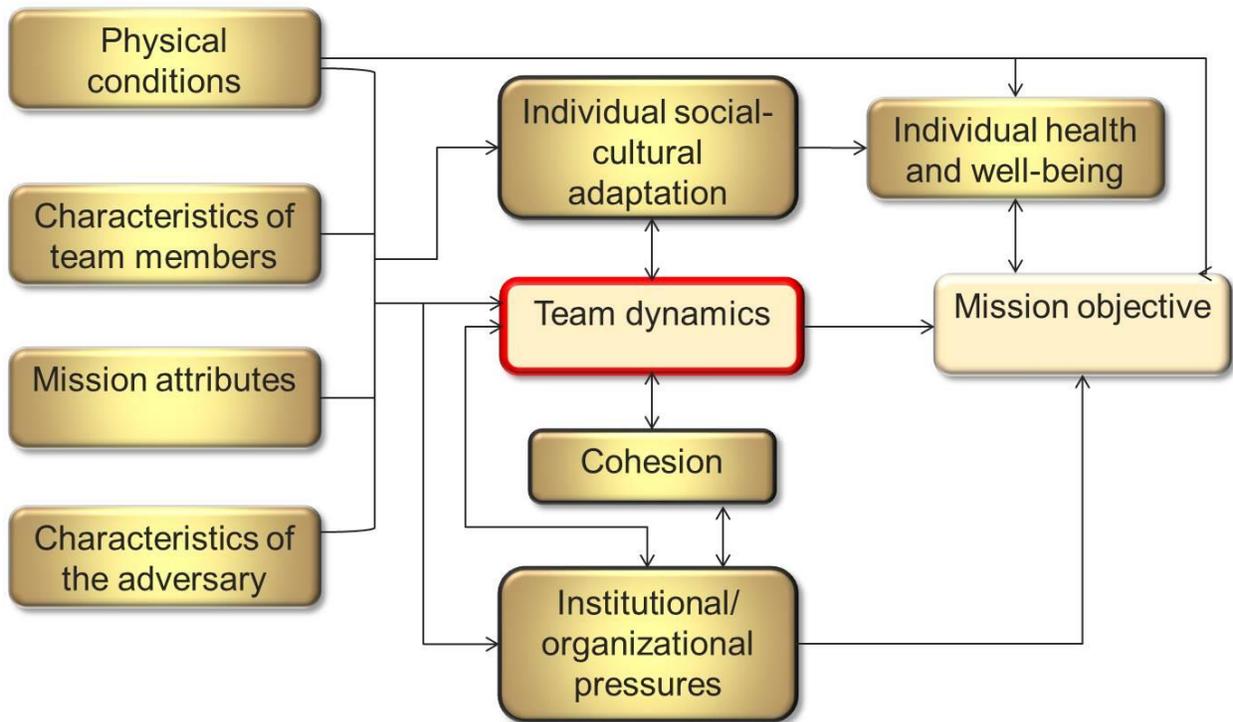
This chapter discusses those team dynamics and describes the social context in which they operate and the complex interactions at play.

Teams, composed of several individuals, are created by selecting from the pool of qualified operators. Each team will have its own internal dynamic, determined as a function of the individuals which compose it. Sex (on which gendered behaviors are based) is only one of several demographic factors that could be salient in team dynamics. Race, age, education, rank, place of origin, or other factors could be more or less salient for any given team, and salience may vary over time and task. Intersectionality – the simultaneous consideration by Self and Other of multiple categories of identity and difference – also comes into play.³⁸ As an example, “I am simultaneously female, Anglo, of a certain age, of a certain rank...” And while it seems intuitively obvious, it will be important for the conclusions to state explicitly here that different combinations of individuals will yield different team dynamics and different team dynamics will affect the mission objectives.

Just as sex or sex category is only one of many of the attributes influencing team dynamics, team performance is only one of many factors influencing the mission. Other factors include environmental and human factors, to include both the human and natural environment and interpersonal and institutional factors.

Environmental factors that could impact the mission and team dynamics include the physical conditions for performance. In the case of both special operations and of the analogs, these physical conditions are austere, remote and dangerous. The specific nature of the danger also is relevant. For SOF teams, the characteristics of the adversary or of the element of the local population with which they will need to engage will have an impact on team dynamics and performance. For SOF teams and for our analogs, the weather and terrain, will impact team performance.

An illustrative set of factors with the potential to influence performance against mission (which includes the characteristics of team members) is displayed at Figure 3. Note the influence of physical conditions, characteristics of team members, mission attributes, and characteristics of the adversary. Of interest for this study is how one out of several demographic characteristics will affect team dynamics.



Adapted from Sandal, Leon and Palinkas 2006, Fig. 1³⁹

Figure 3: Illustrative factors influencing performance against mission

This complexity has an impact on findings from this research. As is the case with any social science field research, it is very difficult to identify and isolate all confounding variables. Although there were attempts in many of the studies cited to focus specifically on the impact of gender on team dynamics and performance, it is not clear if the studies were able to specifically isolate the sources of behavioral differences.

The task at hand thus is very complex. The following factors require particular attention:

- This study is interested in the effect of only one demographic variable, although intersectionality tells us that all variables operate simultaneously and in an interactive manner
- The team's internal dynamics are only one element in a very complex system including variables ranging from the natural (the environment) to the human (adversaries, allies, institutions, and the like) that will influence the team's ability to perform its mission.
- The system under study is a complex system. To isolate a variable for study is to destroy the integrity of the system.

Additionally, the number of studies of teams in analogous environments is too small to create a sample with statistical validity. Furthermore, the number of women who will be selected for the SOF pools of team members will be very small, and as only 'exceptional' women will pass through the selection and assessment process, they will not be represented by the 'averages' with which studies looking for typicality are concerned. There thus is no ability to statistically predict the behavior of SOF team members and the resulting team dynamics from existing studies. However, the very small number of women who will likely be selected into those pools would allow each case to be treated individually.

The three independent variables for this study were identified as social-cultural adaptation (and specifically, gender-sex distinctions), cohesion, and institutional/organizational pressures. Chapter 6 discusses the socio-cultural phenomenon of gender-sex distinctions and the importance of understanding those distinctions for the integration of women into what has historically been an exclusively male province. Chapter 7 discusses cohesion. Cohesion is specifically identified in General Dempsey's initiating memo, and has been a consideration in other historic and current integration efforts such as race and homosexuality. Chapter 8 addresses institutional and organizational pressures on team dynamics. Chapter 9 reports on what was learned from units in analogous occupations that fielded mixed-gender teams. Chapter 10 provides conclusions and recommendations.

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6. SOCIO-CULTURAL VARIABLES: SEX AND GENDER

This chapter is about the social impact of women on the overall mission and whether or not that impact, transitional or enduring, will compromise the ability of a mixed-gender team to meet a mission objective. In the context of the primary research question, it specifically looks at sex and gender and examines the literature to determine whether any credible factual data exists to keep an OS closed on a SOF elite team.

The discussion begins with definitional issues. The CJCS Implementation Memorandum speaks of women (the Subject line, for example, reads “Women in the Service Implementation Plan”), gender (for example, goals and milestones will “support the elimination of unnecessary gender-based barriers to service”) and females (the section on goals and milestones referencing the Navy, for example, speaks of “female officer and enlisted leadership assignments”).⁴⁰ The memo requires ‘gender-neutral occupational standards’ and calls for a ‘gender-integration study.’ This discussion will show that these terms, specifically sex and gender, are NOT synonyms. To be female (sex) is not necessarily to be feminine (gender), and the same can be said for male (sex) and masculine (gender).

This chapter focuses on gender, the social presentation and display of sex category. In doing so, it will attempt to identify ways in which gender can impact interpersonal relationships. This study does not address the impact of sex category (females) on special operations teams (e.g. hygiene, privacy and medical requirements for females), all of which have been raised in other studies of force integration.

An appreciation of the importance of gender in social interaction allows the discussion to move to the topic of gendered occupations (such as the masculine special operations teams). Gendered occupations emerge when optimal performance in the occupation means exhibition of behaviors synonymous with a gender. The converse usually also holds true. Participation in a gendered occupation by an individual outside the gender which defines the occupation (an individual of the non-definitional gender), such as a male nurse, means that the individual must exhibit occupational qualities that are not congruent with sex category. Gendered occupations are recognized by explicit acknowledgement of the non-definitional gender. “Female Marine” and “male nurse” are examples of exceptions to masculine and feminine occupations respectively. The military is recognized as a highly gendered occupation – the previous closure of positions to women because women should not fight was institutional recognition of this.

This chapter will illustrate the impact participation in gendered occupations can have for the non-definitional gender, describe methods for ‘degendering’ occupations to allow greater participation by the non-definitional gender without compromising performance against organizational objectives, and discuss whether degendering methods would maintain, enhance/degrade, or have no effect on SOF mission success. This will lead to a discussion of the

critical role the validation of the standards and assessment processes will have for successful integration of women into SOF teams.

The discussion of sex and gender and sex- and gender-linked qualities then sets up the discussion on ‘diversity,’ i.e. “the condition of having or being composed of differing elements.”⁴¹ In this case, it leads to a discussion on gender diversity. Do males and females exhibit different behaviors in teams operating in environments analogous to those in which SOF teams must operate? Are these masculine/feminine (i.e. gender-defined, not sex-defined) behaviors?

This chapter also reports applicable results of the convenience sample of Retired SOF Senior Leaders (RSSL) that was surveyed in spring 2013 for their attitudes relevant to the integration in the military. Other than the section which presents the results of the survey, all research for this discussion (chapter) is from secondary sources. In some cases, authors were contacted for additional insights.

6.1 Sex and gender

This discussion begins by clearly differentiating between sex and gender. Sex (male/female) is observable and defines biological categories, while gender (masculine/feminine) is ‘performative’ and defines social categories. Sex or sex category is what one is. That part of our identity does not change from situation to situation. Furthermore, for all practical purposes, sex categories are mutually exclusive. One is either male or female based on reproductive physiology and DNA. Gender, on the other hand, is a set of behaviors that are culturally associated with sex categories. For example, people associate bravery, repressed emotions, strong, and assertive behavior with males. This is called masculine behavior. People associate nurturing, compassionate, weak and retiring behaviors with females. This is feminine behavior. These behaviors are what one does, not what one is.

It is when sex is conflated with gender that social interaction becomes problematized. When we engage with others on the basis of exclusionary sex categories (engage with someone as a female) and assume the association of valued, gendered behaviors with that sex category (as a female, she should act in certain ways), we create expectations that may or may not be valid. Although sex and gender are related, they are distinctly different and strategies for teams to cope with each are different.

It is easiest to begin with sex. Sex is rooted in physiological differences, able to be observed through primary and secondary sex characteristics (e.g. reproductive systems, beards, body size and shape, etc.). Sex characteristics determine what has been called ‘master identities’—identities that are unchangeable and which follow an individual across all activities.⁴² Because these identities are visible, “we so instantly sex-categorize others that our subsequent categorizations of them as, say, bosses or coworkers, are nested in our prior

understandings of them as male or female.”⁴³ That is, someone is seen first as male/female and only secondarily as one who occupies a social role. (Note that this is also true for other visible physical characteristics which can be salient depending upon context such as race, height, or physical deformities.) This cultural view sees sex categorization as primary and determinative of behavior, with social organization and institutions designed to support and reinforce these distinctions.ⁿ

Once an individual is sex-categorized, membership in that category is then associated with certain types of behaviors and psychological predilections. These sex-associated behaviors have some universal aspects, as well as time-, space-, and culturally differentiated nuances. It is these assigned behaviors and the psychological tendencies that motivate them—not the physiological observables—that form the basis of *gender*. Since an individual does not manifest the same behavior in every situation, unlike the way he/she presents physiological observables, these behaviors and the motivations that drive them are a product of (not a precursor to) social interaction. They do not define social interaction but are defined by it. According to West and Zimmerman, “Rather than a property of individuals, we conceive of gender as an emergent feature of social situations... Gender activities emerge from and bolster claims to membership in a sex category.”⁴⁴ Gender (masculine/feminine) thus is a situated or negotiated identity, one that emerges from engagement with a social Other.

To make this concrete through an example, think of what Westerners might consider masculine characteristics: aggression, strength, stoicism, and the like. A given male does not necessarily manifest all or even any of these in any given situation, nor does he manifest them at the same level of intensity in all situations. A male who is aggressive, demonstrates strength, and never talks about how he feels when he is with his peer group may be found at home tenderly holding his newborn and talking with his wife about how proud he is to be a father and worried he may make a mistake in his relationship with the child. The selection and intensity of what are seen as gendered behaviors actually are driven by situational variables. However, although an individual may be described as more or less masculine depending on behavioral manifestations, in no case does the individual ever become less male. Sex category, thus, is what one *is*. One is male or female. Gender is what one *does*. A female may exhibit what may be culturally called masculine behavior – she may be assertive or aggressive, taciturn, etc.

It is not well-established just how separated gendered behavior is from physiologically determined sex categories. There are three general classes of theories of the causes of gender

ⁿ Some have made a distinction between sex and sex-category, where sex is directly associated with the presence/absence of biological markers such as genitalia and DNA and sex category is the social/linguistic ‘box’ into which those are assigned with such markers (see, for example, West, C., & Zimmerman, D. H. (1987). *Doing gender*. *Gender & society*, 1(2), 125-151.) This allows for such anomalies as transgendered individuals who may have been hormonally but not surgically altered. However, for purposes of this discussion, sex and sex category are conflated.

differences: evolutionary theories, cognitive social learning theories, and sociocultural theories. A very quick look at these theories will indicate that it still is unclear how much of any individual's behavior in any particular situation is determined by biology, and how much by expectations and local cultural environments.

In brief, the three classes of theories treat gender differences as follows.⁴⁵ Evolutionary theories assert that gender differences arose from evolutionary selection, postulating that different behaviors are adaptive for (human) males and females. These stem primarily from sexual selection (involving competition among males for mating partners, and selection by females of mating partners) and parental investment (females have greater parental investment in offspring than do males). Clearly this would account for such purportedly masculine behaviors as aggression, and purportedly feminine behaviors such as nurturing. On the other hand, cognitive social learning theory holds that behavior is shaped by reinforcement and punishment, and individuals model or imitate others in their environment who are perceived to be successful or powerful. This argues for much more local determinants of masculine and feminine behaviors. The third class, social role theory, holds that social roles and the associated social division of labor with its power inequalities historically were determined to some large degree by sex-based differences such as size and reproductive requirements. Although now mediated by technology (it no longer takes a lot of strength to till a field, and breast pumps and infant formulae have obviated the need for mothers to stay close by their nursing children), these roles and the behaviors and power-generated psychologies have become stylized and still exist. Again this argues for some universal basis for masculine and feminine behaviors, with allowance for cultural drift over time.

As noted above, sex-categorization has been argued to be one of the first mechanisms used to assign an identity to a social Other. Individuating the Other may not go beyond assigning him or her to a sex category (seeing them as male or female). In that case, the engagement with the Other is solely as a representative of that sex category (we would engage with the Other solely or primarily as a male or female). In this (extreme) case, they would be assigned (i.e. expect from them) stereotyped behaviors, values and attitudes associated with that sex category. For example, an unknown Other with whom an individual is about to engage may be identified as 'female,' and assign to her (expect from her) 'typical' (Western) feminine behaviors such as submissiveness, weakness, talkativeness, nurturing behavior and the like. In a very general way, it is the general cultural assignment of feminine behaviors to all females and certain masculine behaviors to males that raised some of the concerns that stimulated this study. Would the males feel the need to 'protect' the females in dangerous situations? Would the females be willing and able to engage in the highly aggressive behavior required by many direct action situations?

Note that this little apocryphal tale of engagement with an Other solely as a male or female does not allow for the true complexity of social engagement – intersectionality or multiplicity, the engagement with others on multiple dimensions of likeness and difference. It is

highly likely that we would categorize unknown Others on multiple planes of likeness and difference before engagement – age (older or younger than me?), race (same or different than me?), and the like. The danger of addressing one dimension in isolation is the danger raised earlier regarding the complexity of social engagement. Isolating an element from a system destroys the integrity of the system. As an example, an engagement with a young black male is going to be very different than an engagement with an old white male. They are both male, but an individual's relationship to each of them on the other two demographic dimensions (age and race) significantly changes the importance of the sex dimension. That said, when individuals operating under pressure, the calculus for engagement changes.

The presence of pressure will lead individuals to consider one another in terms of a highly salient social category that may not function to provide specific information about how others are likely to perform the task at hand, but may instead be beneficial by engendering a depersonalized trust that positively affects certain relevant outcomes for the group while attenuating others.⁴⁶

A National Research Council report noted the added importance of what it called gender stereotyping in the high-stress environments required by long-duration space flight.

Although it is not unusual for such behavior [gender stereotyping] to take place in the general population, research in analog environments [to space] has demonstrated that it often takes on added significance in isolated and confined environments, resulting in misunderstandings and increased tension between men and women who must learn to work together.⁴⁷

This report suggests that, under pressure, males may bond more easily with males than they would with females, and assume more task-appropriate performance from the males—even even though male-ness and assumed associated masculine behavior is not necessarily related to performance in that instance.

Social categories such as male/female and masculine/feminine do provide definitions of Self and social Others, i.e. social identity. These categories are given value and become an important part of the way a person develops attitudes towards others.⁴⁸ When individuals act as and/or are perceived as representatives of groups (as a male) rather than as unique selves (John or Joe), the interactional focus is on intergroup interaction, not action between individuals.⁴⁹ In-group and out-group behaviors and membership become stereotyped and acquire an affective or normative dimension – they become positively or negatively valued. Males should act in certain ways. That is what it 'means' to be a man. This affective load creates the potential for conflict when self- or other-identification is as a member of a group ('let's see if a girl can make it through this course') rather than as an individual (can Sue make it?) or by a social role.⁵⁰

To bring this back to the gender discussion, gender-based behaviors are hegemonic, highly normative behaviors. That is, they are generally widely accepted across a culture and

embody some kind of power relationship (are hegemonic), and successful performance of them is strongly positively valued (highly normative). Americans have a general common idea of what it ‘means’ to be a man, a recognized set of behaviors and attitudes that are positively valued when displayed by males. However—and this is an important point—the nature of gender does not mean that *all* members of a sex category equally manifest all behaviors assigned to that category, that all males (for example) equally manifest all masculine traits.

Hegemonic masculinity was not assumed to be normal in the statistical sense; only a minority of men might enact it. But it was certainly normative. It embodied the currently most honored way of being a man, it required all other men to position themselves in relation to it.⁵¹

Individuals use gender as “interactional portrayals of what we would like to convey about our sexual natures, using conventionalized gestures”⁵²

To briefly summarize the difference between sex and gender: Sex categories (male and female) are derived from physiological observables around reproductive systems and secondary sex characteristics. Because of their observable nature, sex categorization is one of the first mechanisms used to assign identity to an Other. For a variety of reasons, cultures have developed constellations of behaviors, values and attitudes that are assigned to each of the sex categories. Some of these behaviors may be universal; others may be determined by local cultural complexes. These collections of behaviors assigned to a given sex category constitute gender. These gender-based behaviors and attitudes are normative or positively valued and so aspirational in nature. Men generally aspire to exhibit a certain set of behaviors and attitudes, women another, although the actual behaviors of men and women vary along many dimensions. Gender thus is performative rather than existential in nature. As mentioned earlier, sex (category) is what one is; gender is what one does.

This brings the discussion to a final, critical point. Sex and gender are qualitatively different ways of establishing social identity, yet they are generally conflated in social interaction and this conflation is codified in many institutions.

Sex differentiates people into (almost) categorically different groups: it has been argued that sex may be the strongest example of *essentialism* in lay social cognition: the belief that categories possess distinctive “deep, hidden, and unchanging properties that make their members what they are”⁵³ Male and female are understood to be exclusionary categories. Bisexuals and transgenders, with their erasure of the division between the sex categories, thus can be very threatening. Gender tells us what kind of behavior males and females culturally expected to exhibit. This behavior is expected from others. Lesbians and gays problematize gender categories by assigning the unexpected behavior to an observed sex category.

Although reproductive capabilities create the exclusionary categories of male and female, the behavioral and associated psychological characteristics of interest such as aggression, decision-making styles, coping mechanisms and the like are usually dimensional, that is, one may be more or less aggressive, not aggressive yes/no.⁵⁴ Therefore, to say that ‘men are more aggressive than women’ is to conflate an exclusionary category (male) with a dimensional category (aggression). While the statement may be true for a population (males, on average, are more aggressive than females), any given male may, in fact, be less aggressive than any given female. The actual representation of aggressive tendencies in male and female populations would be distributions rather like the overlapping bell curves shown in Figure 2. And when the display of tendencies like aggression is situation-dependent, the conflation of exclusionary sex category with dimensional attitudinal categories is even more problematic. A male who is typically aggressive on a basketball court may be quite inclusive and conciliatory in a room full of female relatives.

Hyde points out in her review of literature comparing males and females in many areas that there actually is much less difference in the distributions between masculine and feminine behaviors than gender assignments would have us believe.

...there is much evidence in support of the gender similarities hypothesis. Domains in which gender differences are small...or trivial...include mathematics performance, verbal skills, some personality dimensions such as gregariousness and conscientiousness, reward sensitivity, the temperament dimensions of negative affectivity, relational aggression, tentative speech, some aspects of sexuality...leadership, effectiveness, self-esteem, and academic self-concept.⁵⁵

She does identify a few areas

where differences are moderate...or large... includ[ing] 3D mental rotation, the personality dimension of agreeableness/tender-mindedness, sensation seeking, interests in things [male] versus people [female], physical aggression, some sexual behaviors.. and attitudes about casual sex.⁵⁶

Finally, she goes on to say that “this review also reveals much evidence of the importance of context in creating or erasing gender differences,” emphasizing the emergent, interactional nature of gender.

However, while academics recognize the performative, interactive and contextual nature of gender, gender as a stereotyped, affective dimension of social identity has become culturally conflated with sex category in general interaction.

Primary categories of person perception, including sex category, work as cultural frames for coordinating behavior by associating category membership with widely shared cultural beliefs about how people in one category are likely to behave compared to those in a contrasting category.”⁵⁷

Thus when an individual engages with others whom they do not know, the tendency is to engage with them on the basis of exclusionary sex categories and *assume* the association of the normative gendered behaviors with those sex categories. When operating under stress, the individuated characteristics of even those are known well, such as teammates, may be subordinated to the strong salience of sex categories and associated gendered behavior.

6.2 Gendered occupations

One of the most powerful ways that gender frame affects the gendered structure of society is through infusing gendered meanings into the institutional practices, procedures, and role identities by which various organizations operate...gender becomes a way of acting like a doctor or of driving a car.⁵⁸

The present study was stimulated by a change in Department of Defense (DOD) policy that re-defined jobs that heretofore had been ‘closed to women’ as now open to all. Prior to this change, combat positions, certain support positions and, specifically, special operations teams had been defined as ‘men’s work.’ That is, there was a cultural presumption that these positions either were unsuitable for women or that women—because they were female—were not capable of performing the tasks. The change in policy is the beginning of an effort to degender combat.

Gendered occupations are those which “come to be seen as appropriate for workers with masculine or feminine characteristics, that is, occupations could be said to be feminized, masculinized, or, more generically, gendered.”⁵⁹ It is important to distinguish gendered occupations from occupations which are numerically dominated by a single sex. For example, during World War II, American women took jobs of a type typified by the iconic Rosie the Riveter in airplane and munitions factories. However, although these job categories were numerically dominated by women during the war, the jobs themselves were not demasculinized during that period. After the war, the women left the factory workplace, their places taken by men returning from the front.

Ely and Meyerson’s analysis of the degendering of the workplace on two offshore oil rigs provides a fairly comprehensive overview of the literature on masculine gendered jobs in their introductory sections.⁶⁰ As their work is reasonably current (published in 2010), this paper draws heavily on their summary of the literature rather than recreating it.

Masculine gendered jobs or job categories are those that

require qualities that men ideally possess and that women supposedly lack...Organizations conflate masculine characteristics with the skills required to do these jobs, defining competence in part by how well an incumbent fits the desired masculine image...As an arena for demonstrating competence, the workplace can thus be a proving ground for masculinity.⁶¹

To do these types of jobs is to demonstrate that one is a man. Conversely, demonstrating that one is a man often requires taking on certain jobs.

Gendered occupations often can be identified by the ways in which they are discussed: ‘female Marine’ and ‘male nurse’ are two examples. If we simply say ‘Marine’ or ‘nurse,’ we *assume* the practitioner is male or female, respectively. If the practitioner is of the non-definitional gender, it needs to be explicitly linguistically marked.

Ely and Meyerson point out that “Organizations doing dangerous work provide especially powerful illustrations of these [gendering] processes, since dangerous work entails physical risk, which is a *sine qua non* of masculinity. Few settings evoke more vividly the dominant cultural image of the ideal man: autonomous, brave and strong.”⁶² They provide a list of characteristics of the masculine in the West: “Assertiveness, aggression, competition, autonomy, strength, decisiveness, agency, rationality, a facility with tools and technology, emotional detachment...”⁶³ They later add the importance of competition and the need to continuously demonstrate to other men the presence of these masculine characteristics.⁶⁴

Gendered occupations are occupations whose very performance is synonymous with demonstration of a sex category. To be a Marine *is* to be a man. It requires one to be brave, strong, tough...and, in some ways, being brave, strong and tough is to be a good Marine. Sex category (male), gendered behavior (masculinity) and occupation are conflated. Silva, interviewing ROTC candidates and students at universities, found that male respondents did conflate occupation and definition of self (of which sex category is a strong component) although her female respondents did not.

Brittany, like most of my [female] interviewees (92 percent), separated womanhood from personhood in a way that the men whom I interviewed did not - these men never distinguished between manhood and personhood, either in the university setting or in the military. For women, being a “gender neutral” soldier requires constant awareness of oneself as either a person or a woman, while the men ignored gender as a category as well as the master-status of maleness in the military.⁶⁵

Barrett’s discussion of hegemonic masculinity in the Navy duplicates some of these characteristics and adds others: “risk taking; discipline; excitement associated with operation of powerful technology; tolerance of degradation; stoic endurance of hardship; tenacity and perseverance in the face of difficult physical trials; rational calculation; absence of emotion; and technological mastery.”⁶⁶ He also points out that “recruits who complain or do not keep up with others are the targets of gendered insults: they are called girls, [w]ussies, weenies and wimps by the instructors.”⁶⁷ To fail to perform is to exhibit feminine behavior.

The uniformed military is still a gendered occupation, with combat arms positions the most highly gendered of all the military occupations. As Marlowe commented,

A widespread relationship links male sexual validation and validation in war, combat, and aggression. Until recent times, many human groups' definition of the male as sexually mature and eligible for marriage and intercourse was contingent upon his having proven himself as a warrior in battle.⁶⁸

Morris suggested that what she called the hypermasculinity (“expressions of extreme, exaggerated or stereotypic masculine attributes or behaviors”⁶⁹) that resulted from all-male units promoted social bonds or cohesion among the men, partially by minimizing the sexual tension that would exist in a mixed-gender group.⁷⁰ The effect of hypermasculinity on unit cohesion is more ambiguous.⁷¹ This will be addressed in the next chapter. Although Rosen’s later research presented a more nuanced view of the military man’s attitudes toward women,⁷² Rosen and her colleagues acknowledged that what they called ‘the warrior environment’ and its associated hypermasculinity was likely to prevail during deployments, creating very difficult circumstances for women, the non-definitional gender.⁷³

That hypermasculinity can lead to a climate accepting of sexual harassment^o has been documented.⁷⁴ There is evidence that such a climate can also lead to what has been called gender harassment, where “Work performed by women is sabotaged, undermined, undervalued, ignored, and discredited by their male peers, supervisors, and even subordinates.”⁷⁵

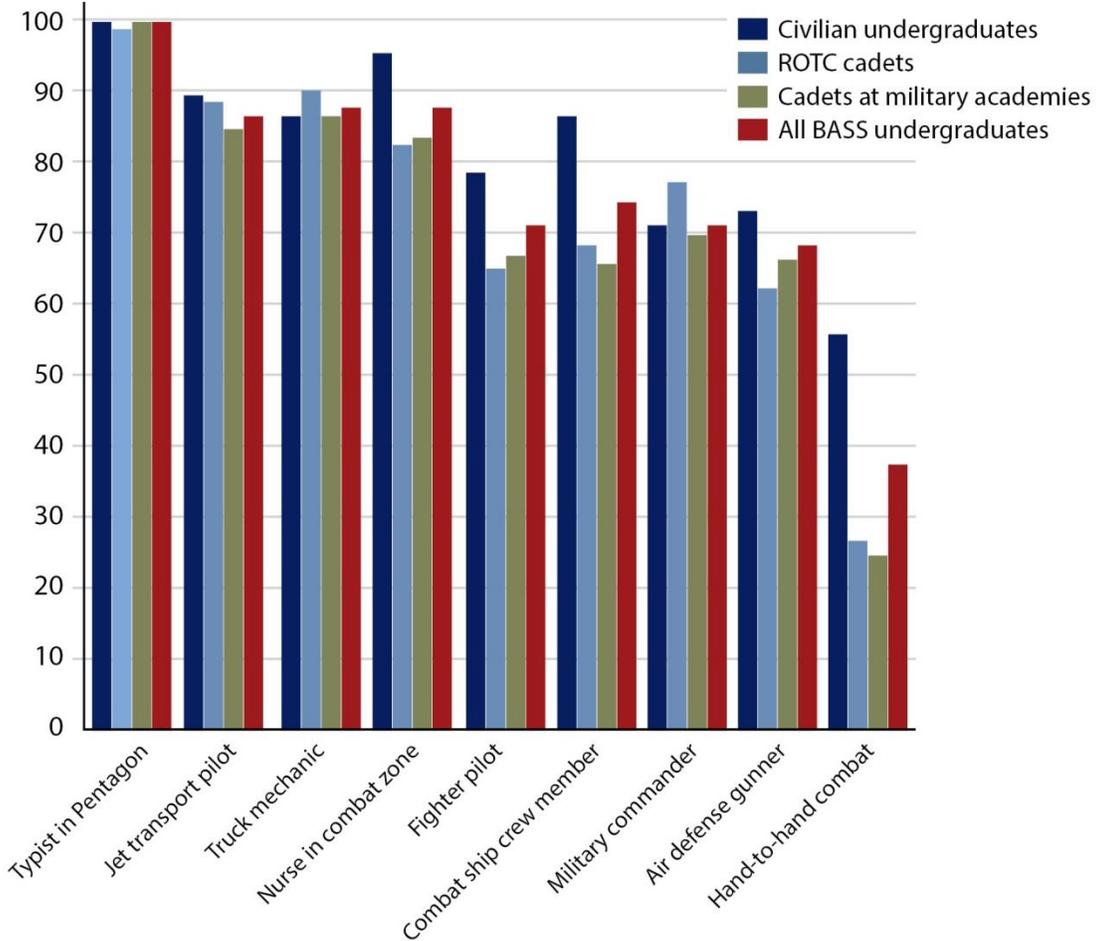
The closure of American combat arms to females, including SOF teams and SOF enabler positions, until January 2013, represents an institutionalization of the cultural position that females *should* not participate in combat arms, i.e. that combat arms was a masculine, gendered profession. Writing prior to the lifting of exclusions on females from combat positions, Morris says

Only men are deemed suitable for ground and certain other forms of combat – arguably the very positions that have been considered the prototypical military positions, perhaps the most “macho” ones. In this way, the continued exclusion of women from certain combat roles may actually reinforce and reaffirm traditional military gender norms; that is, to be a “real soldier,” a fighter, one must be a man.⁷⁶

The recent study by Ender et al. (2013) of the attitudes of members of the Millennial generation towards the military⁷⁷ showed that even today “less than half of all respondents approved of women serving in hand-to-hand combat. In a separate analysis comparing sex and affiliation, of all groups, only a majority of civilian women (67.2 percent) agreed that women should serve in this role.”⁷⁸ Further breakdown of the data shows that only between 25-30

^o “Facts About Sexual Harassment,” Taken from U.S. Equal Opportunity Commission, website at <http://www.eeoc.gov/eeoc/publications/fs-sex.cfm>, on 19 March 2014. “Unwelcome sexual advances, requests for sexual favors, and other verbal or physical conduct of a sexual nature constitute sexual harassment when this conduct explicitly or implicitly affects an individual's employment, unreasonably interferes with an individual's work performance, or creates an intimidating, hostile, or offensive work environment.”

percent of ROTC students and cadets at military academies believed that women should perform hand-to-hand combat (see rightmost set of data in Figure 4), an essential (although certainly not the only) element of the special operator’s toolkit. What is particularly relevant for this study is that Ender et al.’s ROTC and military academy respondents represent the future of the office cadre, some of whom will be leaders in SOF.



Source: Ender, Morten et al. 2013. Chart 5.1

Figure 4: Percentage of undergraduate Millennials responding that women should be able to perform military roles^p

^p The BASS [Biannual Attitude Survey of Students] is a longitudinal study of mostly frosh and sophomore undergraduate students at civilian and military colleges (that is, military academies). The study began in 2002." In Ender, Morten G., David E. Rohall, and Michael D. Matthews. The Millennial Generation and National Defense: Attitudes of Future Military and Civilian Leaders. Palgrave Macmillan, 2013. P.24

Suggesting a contradiction to these attitudes based on experience, a survey of a convenience sample of 33 retired SOF senior leaders (RSSL) showed rather different results. The survey was taken in Spring 2013 to elicit their attitudes towards the integration of females into SOF units. The survey was conducted at the RSSL conference held at JSOU in Tampa, FL, on 13-14 May 2013. In addition to updating the RSSL participants on items of major interest to the command, Admiral McRaven (the Commander of USSOCOM) wanted their opinions on a variety of topics including the integration of females into SOFMET. Note that the survey was conducted at the conclusion of a one hour briefing on this topic and so may not reflect respondents' true attitudes.

Figure 5 presents the results of the responses to the question, “what effect would an assigned female have on mission effectiveness at the SOF tactical team level?”

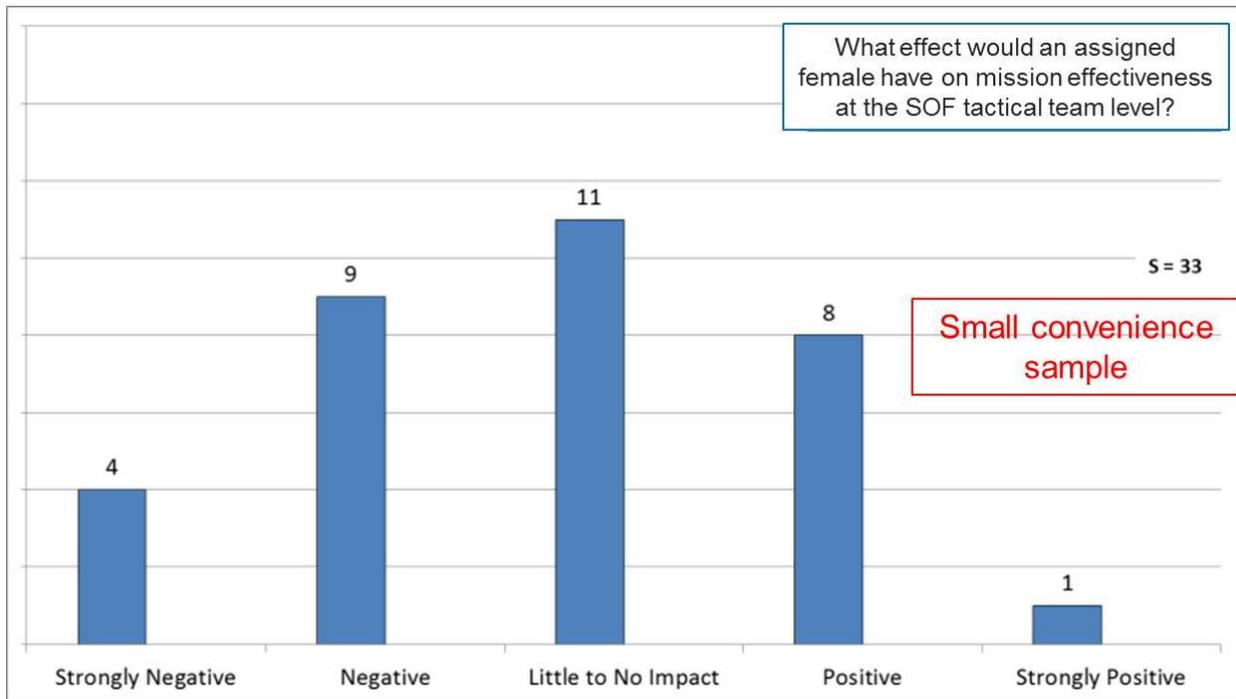


Figure 5: Results of survey of retired SOF senior leaders on females and mission effectiveness

In contradiction to the responses of the ROTC students and cadets at the military academies—the cadre from which the future leaders of SOF will come—the responses to the question from the RSSL showed a fairly normal distribution. Most of the respondents had led teams involved in direct action or the hand-to-hand combat for which the students in Ender et al.’s study felt that women were unsuited. Further research—including a more rigorous sampling of a more representative population of experienced SOF leaders—would need to be conducted before any substantive conclusions can be drawn, but the indications are intriguing.

The historic institutional closing in the U.S. of combat positions—which embody the core behavior of a military occupation—to women and the attitudes of future leaders of American military organizations which support this closure argue that the military is still a gendered occupation. It can be assumed that for special operators, perceived as the *sine qua non* of the military by many as defined by rigorous physical performance standards, the conflation of sex category, gender and occupation is particularly strong. This raises some critical questions for this study. Can the occupation (military combat as embodied in elite teams of special operators) be de-gendered, allowing the females who choose it to retain a deep and important part of their identity (their femininity) yet perform on a par with their male peers?

6.3 *The effect of tokens*

Occupations can be organically degendered as the minority group acquires positions, prestige and power within the occupation through the collective activities of individuals over time through superior performance. Alternatively, society can begin the process by externally forcing the desexing (note: not degendering) or desegregation of an occupation through laws or requirements opening them to classes of individuals which historically have been excluded. General Dempsey’s memo requiring the opening of combat positions to women (unless there is a performance-required reason for exclusion)⁷⁹—the memo which stimulated this study— is such an effort. It is an attempt to move the military, a historically gendered occupation in the U.S., into what its leaders see as a position more in accordance with the social values and attitudes of the general society it serves. However, allowing females to serve does not necessarily degender a masculine occupation.

Whether the change be organic or imposed, the initial numbers of members of the minority population will be small and could be perceived as ‘tokens,’ or “treated as representatives of their category, as symbols rather than individuals.”⁸⁰ Kanter’s 1977 study of women in a corporate environment concluded that when the minority population is small enough (around 15% or less),^q that minority population may experience performance pressures, social isolation and stereotyping if they are treated as tokens. Other studies, such as Ott’s study of Dutch policewomen integrated into the force in the 1980’s, compared teams where women made up as much as 25% of the team (‘tilted’ teams) with those where an average of 6% of the teams’ members were women (‘skewed’ teams), with many of these skewed teams having only one female team member. Ott found that women on the skewed teams reported more severe performance pressures such as greater visibility, more social isolation, less peer acceptance and more sexual harassment⁸¹ than did women on the tilted teams.

^q While Kanter used a specific threshold, this number should only be used as a guide. Tokenism (with its associate effects) can still occur if the minority is more than 15%, 20% or even more of the total group.

Kanter's 1977 study argued that structural factors (the relative numbers of the minority to the dominant group) would be the primary cause for the less-than-optimal behavior of the majority group.⁸² She suggested that increasing the percentage of the minority, "gender balancing" to some level beyond the 15% threshold, would eliminate the perception of the minorities as tokens and alleviate the negative effects of such a perception. Though Kanter did not identify a specific numerical tipping point, proposed policy solutions often focus on reaching a "critical mass" of the minority which the literature puts between roughly 15-25% of the total. Morris argued for a similar structural solution to the integration of women into the military, positing that inclusion of women in the military in sufficient numbers would be necessary to degender the profession.⁸³

Subsequent research suggested that increasing the proportion of a minority in a group may worsen the effects of tokenism, not alleviate them. Yoder suggests that the saleswomen in Kanter's original study encountered negative behaviors not because of their small numbers but their increasing numbers. The increase in numbers was viewed intrusive by the dominant group which felt under threat.⁸⁴ This view is shared by Blalock who argues that discrimination increases with the relative size of the minority, because the minority becomes a greater competitive threat to the majority.⁸⁵ Thus increasing the proportion of the minority may heighten not lessen undesired behavioral effects.⁸⁶ These divergent perspectives suggest that the effect of tokens (small numbers of an identified group seen as symbols, not as individuals) in a workplace is a complex phenomenon influenced by more than numbers.⁸⁷ This structural solution is now seen as perhaps necessary but certainly not sufficient.

Further research has suggested that the negative experience of the minority group is a function not only of its numbers but of its status vis-à-vis or relationship to the dominant group.⁸⁸ Yoder found that perceived occupational inappropriateness (e.g. women should not fight), not relative numbers, may be the key factor allowing negative behavior toward tokens to emerge, arguing that it only occurs for women in occupations that are considered gender-inappropriate.⁸⁹ Not all numeric minorities have the same negative experiences in any given occupation, and the same minority may have different experiences in different occupations.⁹⁰ In fact, minority males in female-gendered occupations such as nursing or social work may occupy positions of prestige and token-related behaviors may not emerge.⁹¹

The presence of a low-status or felt-inappropriate minority or of a token population allows certain behaviors to emerge in the dominant group, leading to a common group of experiences on the part of the minority. These include heightened visibility for the minority partially but not only because of behavior around the definitional category (sex or gender in the case of this study), exclusion from the dominant group through boundary heightening and other mechanisms which emphasize characteristics and behaviors related to the definitional category, and being cast in stereotypical roles by the dominant group.⁹² Research addressing the impacts of intersectionality, defined earlier in this study as the simultaneous consideration by Self and Other

of multiple categories of identity and difference, supports the contention that it is the felt-inappropriateness or low status of the minority population rather than its numbers that stimulate the negative behavior directed at tokens. Yoder and Berendsen's study of white and black female firefighters in the late 1990's found that Black females were the target of these negative behaviors for a longer period than White females, noting that "specific enactments of ... exclusion often vary along racial/ethnic lines reflecting the subordinated racial status of being Black in contrast to the culturally privileged status of being White."⁹³ Stronshine and Brandl's 2004 study of police officers also looked not only at the impact of gender (the study population had both male and female sworn officers) but of two different race/ethnicities, Blacks and Latinos.⁹⁴ The study found that Black officers, whether they were male or female, experienced greater negative performance pressures associated with tokenism, even though their population percentages were higher than Latinos. This supported what the authors called "a wealth of research that establishes a racial hierarchy, with Latinos faring better than Blacks in the workplace"⁹⁵ and supports the argument that, in this case, it is the low status of the criterion defining the minority population (defined by race or ethnicity), not that members of the population are female, that stimulates the negative behaviors towards that population.

Negative performance pressures associated with tokens have been experienced by women in the military and other public service organizations, generally as a result of their perceived inappropriateness in a gendered occupation. A large scale survey by Adams and Yoder in 1965 of male and female officers commissioned through West Point and other sources found that "On ratings of assistance from peers, getting to know one's unit, congeniality of one's unit and acceptance by troops, men's ratings were significantly higher than women's, suggesting that the women officers were isolated."⁹⁶ Such experiences were consistent with those reported by female firefighters in Yoder and Berendsen's study of Black and White female firefighters in the late 1990's.⁹⁷ Muir's study of Canadian women serving during the 1991 Gulf War described a 'goldfish-bowl' syndrome, reporting that the women were "carefully observed by everyone—sailors, officers, the press and the public."⁹⁸ Dutch female police officers in Ott's study conducted in the mid-1980's said that "you cannot make a mistake...they know everything about me."⁹⁹ In Yoder and Berendsen's study of female firefighters, the women noted "By the end of the first week [of training] everyone knew there [were] three women. They all knew our names, they knew how we were doing...and they could not tell you the names of any of the guys, but they certainly knew everything about us. We're just watched more closely."¹⁰⁰ As Yoder argues, women experience the negative behaviors associated with tokenism when they are both "numerically scarce, and working in an occupation normatively defined as men's work."¹⁰¹

A token thus is a member of a low-status or felt-inappropriate minority who is perceived by the majority as representative of a category, not as an individual. The relative size of the minority vis-à-vis the dominant group and the threat felt by the dominant group to its definitional position in the occupation have the potential to lead to behaviors by the dominant group that

could be damaging to overall group cohesiveness and have negative psychological impacts on the excluded individuals. These behaviors also could preclude the full utilization of the capabilities of the members of the minority group, precluding the divergent thinking and innovation associated with influence of minorities which are used as strong arguments in favor of diversity.¹⁰²

As Kanter's original research saw a structural problem (the negative behaviors of the dominants were the result of the small number of tokens or minorities), so was her solution a structural solution—increase the numbers. However, as later research discovered additional dimensions of the problem, the solution became more complex.

A very different approach suggests de-gendering the occupation—addressing the values that set up the initial conflict, and forcing the conversation back to one about performance. Rosen et al.'s work suggests professionalizing the occupation by developing visible standards and assessment processes against which all performers must measure up, de-conflating masculine qualities and the occupation. (It is worth noting that Rosen et al. did say that “Ungendered professionalism may be relatively easier to maintain among personnel in garrison, but may break down during deployments with the development of warrior environment.”¹⁰³) To be a SEAL it is not necessary to be ‘a tough guy.’ It *is* necessary to be able to accomplish the mission—and if has been demonstrated that if a candidate can do a certain number of pull-ups, swim a certain distance under a measured time, or retain judgment under physical stress (recognizing that physical stress may look different for males and females), he or she could effectively perform the types of activities necessary to discharge the range of missions with which a SEAL team might be charged. That those kinds of performances mean that one is strong is not debated. What is up for challenge is the definition of the performance standards. If those standards are appropriately validated, then any candidate who measures up to the standards can do what needs to be done by a SEAL. Morris made this point writing about the military in general, although it certainly applies to special operations.

There is no reason that the high valuation of those attributes [what she called the ‘masculinist’ attributes of dominance, aggressiveness, and toughness] cannot be retained while simultaneously dissociating them from masculine gender; they may be valued instead as important attributes in a good soldier regardless of gender. Nor need the celebration of a certain steeliness exclude the approval also of compassion and understanding (as it does in the hypermasculinity component of the masculinist construct).¹⁰⁴

Finally, the job itself can be redefined, either institutionally or at the individual and interactional level.

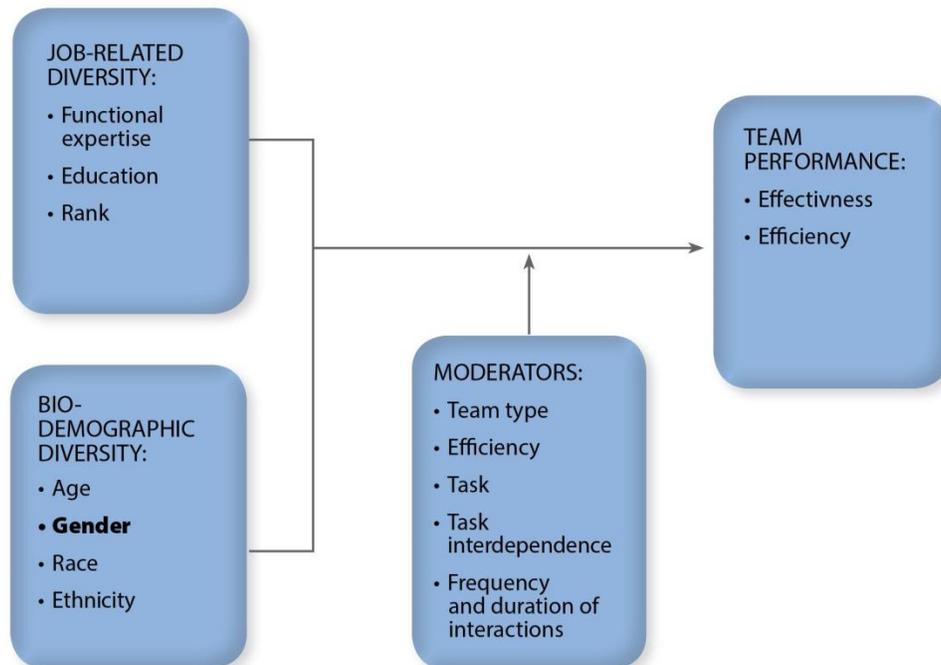
Skuratowicz (1996) found that the female firefighters she interviewed broadened their interpretation of the physical requirements of their jobs from an exclusive focus on masculine-identified “brute strength” to a more encompassing conception combining strength, flexibility, endurance, and overall physical fitness¹⁰⁵

without compromising their ability to put out fires. Ely and Meyerson’s well-documented work on the shift from a masculine to a safety culture on offshore oil rigs illustrates how “collectivistic goals, the alignment of definitions of competence with *bona fide* task requirements rather than with idealized images of masculinity, and a learning orientation toward work” successfully engineered such a shift without challenging the self-hood or perceptions of masculine selves of the men working on the rigs.”¹⁰⁶

As very few women are likely to meet the physical requirements for selection into elite SOF units, it is likely they always will form a very small minority on those teams, well below any number posited for a structural solution. An awareness of the potential difficulties faced by tokens (as distinct from a minority population) may help begin a process to mitigate them through the de-gendering of combat-related occupations. The relationship of organizational culture to organizational values including those related to gender will be addressed in a later chapter.

6.4 Diversity

This review of mixed-sex team performance begs the question of the usefulness of gender diversity for certain types of tasks. Again, it is worth emphasizing that gender diversity is only one aspect of one type of diversity. There are many other moderators which can impact team success as illustrated in Figure 6.



Adapted from Horwitz (2005)¹⁰⁷

Figure 6: Compositional impact of team diversity on performance

Horowitz’s overview of the literature on the impact of team diversity on performance notes that there is “a paucity of studies examining the specific effects of gender on team performance.”¹⁰⁸ He reviews the available literature and points out that two contradictory conclusions can be drawn from it. One is that the introduction of heterogeneity into a team along any dimension sets up tensions and intragroup conflict. This would support the conclusions on the potential benefits of hypermasculinity for military units particularly in battlefield settings, and the potential for females to disrupt those masculine bonds. On the other hand, other researchers suggested that

A more plausible explanation for the slight superiority of mixed-sex groups is the heterogeneity of interaction styles that characterizes this type of group. Maybe the combination of men’s and women’s interaction styles in mixed-sex groups equipped the group to be moderately effective both at tasks requiring task activity and at those requiring social activity.¹⁰⁹

This supports our findings from the literature on analogous activities detailed in Chapter 9.

Horowitz’ model includes biodemographic and job-related diversity. Research suggests a third category, one different in kind: relational diversity.

Biodemographic diversity measures the degree of heterogeneity among team members on specified demographic dimensions. These dimensions are ascribed—individuals are born with them and generally cannot change them. (Note that instead of ‘gender’ as Horowitz’ constructs show, this study would reflect sex category.) They are measurable and static. Measurements and reports of team or group diversity would treat each category as equal—each is a dimension of difference. A focus on biodemographic diversity would see a social organization that reflects and supports these categories.

Job-related diversity measures just what it says it does. It measures attributes of team or group members that contribute to job performance. These are usually achieved characteristics and are under the control of the individual team member. He can change his education or his skill set or his rank. Often these dimensions of difference are along continua rather than being exclusionary characteristics like the biodemographic set. And, like biodemographic measures of diversity, all dimensions are considered equal (as diversity measures), for each is a dimension of difference. Again, social organization would appear to reflect and support these differences.

Relational diversity is a qualitatively different set of measures. It encompasses the total set of social relations that emerges from the ways in which people interpret and act on their differences. It is here that biodemographic and job-related diversity measures are given value and imbued with affect or emotion. This type of diversity is dynamic—it emerges from each social encounter. It is the result of the perception by Self and Other of the value of difference. It also reflects the power dimension of difference. In this domain, social organization (categories and structure) emerges from interaction.

Gendered behavior reflects relational diversity. It involves valued behaviors of Self and Other. As noted several times, gendered behavior is situational. A male might exhibit strongly masculine behavior when in the company of his male peers, but less masculine behavior when in mixed-sex company.

Diversity of any sort on a team can be accommodated in different ways. The differences among team members can be ignored, and the team can focus on commonalities. Hypermasculinity in a military unit or a sports team or other group can be an example of this with the group exerting pressure on the members to exhibit extreme masculine behaviors. While this accommodation strategy can create strong bonds based on this likeness and while this team cohesion has benefits, there also is a down side. Highly valuing ‘masculine’ behaviors usually means de-valuing ‘feminine’ behaviors. This is to be expected for gendered occupations which define occupational performance by gender performance. This sets the stage for the de-valuing of women and their contribution, and for potential sexual harassment.

This strategy does not allow the team to take advantage of the variety of skills and capabilities it might have at its disposal among team members. Returning to the

hypermasculinity example, the focus on extreme displays of masculine behavior can cause harm to mission success in a situation perhaps better addressed by a more accommodating and interactional ‘feminine’ approach even in by all-male team. In addition, the distributional nature of gender attributes ensures that although all members of the group may display extreme masculine attributes, not all members of the group are normally comfortable in that segment of the bell curve. As a consequence, this accommodation strategy can take an emotional toll on individuals. This is often seen in individuals of the non-definitional gender who participate in highly gendered occupations. These non-definitional gender participants may spend a lot of emotional energy ‘proving’ themselves to their male counterparts.

A second accommodation strategy is to develop a strong focus on the team’s goal. This turns attention away from individual members and can allow the leveraging of difference. However, it does not provide opportunities for the strong bonding that a focus on commonality can.

This tension between a focus on commonalities and the bonds it creates versus a focus on a mission or goal is addressed in the literature on cohesion (Chapter 7). The focus on commonalities creates social cohesion, while the focus on the mission creates task cohesion. Different types of cohesion thus have an impact on the role of gender in team performance by the way in which they allow the team to access diversity.

6.5 *Analysis*

This assessment of the impact of gender integration on special operations teams began with the recognition that, in fact, deals with gender not sex. It is the stereotyped and valued expectations of behavior of Self and Other that emerge in any social interaction that will impact behavior (or not) in ways of interest. Sex—exclusionary categories based on physiology—is not of interest here.

Having said that, in general social interaction exclusionary sex categories are conflated with dimensional gendered attributes. Specific attributes are assigned to each of the sex categories—when, in fact, each of the attributes is distributed across the entire population, across both sexes. Given the spectrum of behaviors required by SOF missions which range from combat to advisory (and many of which have elements of both), it is highly likely that many of the attitudes and behaviors conventionally associated with the feminine—such as plays well with others, cooperative decision-making—are already present and selected for and nurtured along with other characteristics in the current pool of special operators. Adding females to the pool will strengthen this part of the SOF tool kit. By the same token, the distributional nature of these attributes and their existence within the current SOF team profile underscores the importance of avoiding labeling certain jobs, missions or tasks as ‘female’ or ‘male.’

Suppose, for the sake of argument, that there is an attribute such as “Social Skills” with a notional gender-related distribution profile shown in Figure 7. Now suppose that SOF selection processes select males who fall to the right of the solid vertical line on the ‘male’ bell curve for this gender-related attribute. Now suppose that the females who are selected for SOF also show a distribution to the right of that line. Without changing selection standards, the SOF team pool is now much richer in an attribute which it already had. The gender diversity potentially allows access to additional capability.

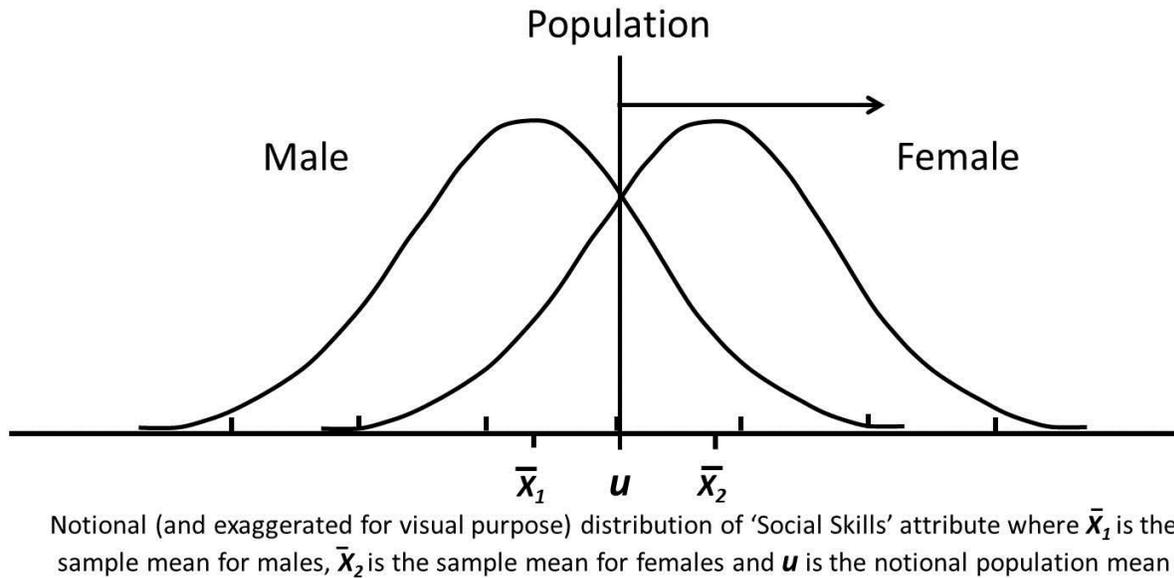


Figure 7: Notional distribution of a gendered attribute such as “Social Skills”

Social interaction is complicated by stress. Individuals under stress will identify an Other by a very small number of demographic attributes, whether or not those attributes are relevant to performance in the target situation. As sex category is a primary identifier for Self and Other, it usually is one of the first attributes used to identify an Other. As certain behavioral attributes are assigned to sex category, as we sex categorize the Other, we acquire expectations of behavior.

The picture is further complicated by focusing on a gendered occupation—the military. In gendered occupations, performance of the job is equated with performance as the definitional gender. Although there is no research to directly support it, it could be hypothesized that as mixed-sex SOF teams come under stress, they will focus on high, gender-defined job performance – that is, on performing ‘like a man’—and will expect their teammates to do the same. A female teammate has the potential to cause dissonance—her female-ness would raise expectations of feminine behavior, although her presence as a teammate, as a coworker, would raise expectations of performance ‘like a man.’

6.6 Gender, sex, and SOF

Mixed gender teams have the potential to add to the richness of the toolkit special operations teams bring to the table, just as does any other type of diversity. However, in order for this diversity to be effectively accessed (i.e. to avoid females becoming simply additional team members with different plumbing), the occupation must be de-gendered by establishing standards truly reflective of requirements for the success of missions. For special operations, those professional standards will define what it means to be an operator, not the standards of masculinity. Furthermore, as women do join the cadre, there may be a redefinition of activities (not of missions) in ways more conducive to female capabilities.

This chapter concludes by emphasizing that just as males who are selected as special operators are 'special' along many dimensions, so will be the females. In fact, since the selection criteria in several of the dimensions, most notably the physical, will pick only females who are far at the tail of a normal distribution, the female special operators will be highly exceptional. This study will try to account for this exceptionalism by looking at females who participate in activities that also require extreme physical fitness as well as mental fortitude and focus (see Chapter 9), but exact analogs were not found. Therefore, it is difficult to predict how women will perform on special operations teams. Given their exceptionalism and their potentially extremely small numbers, it will behoove leadership to treat each as a special case, at least initially, assigning her to a team that can best take advantage of what she brings to the game just as is expected for the men.

7. COHESION

The previous chapter explored gender as a socio-cultural determinant of identity, and the impact this aspect of identity has on team dynamics. This chapter turns to an inter-individual factor: team cohesion. In fact, General Dempsey's first guiding principle in his memo recommending the opening of combat positions to women was to "preserv[e] unit readiness, cohesion, and morale."¹¹⁰

Military organizations traditionally place high value on group (unit) cohesion, especially in combat situations:

One of the most critical elements in combat capability is unit cohesion, that is, the bonds of trust among individual service members that make the combat effectiveness of a military unit greater than the sum of the combat effectiveness of the individual unit members.¹¹¹

This chapter considers the potential impact of the integration of women into SOF units on unit cohesion.

7.1 Defining cohesion

The military's emphasis on group cohesion is rooted in research conducted on German and American soldiers after World War II.¹¹² The idea of cohesion was partially captured in terms such as 'esprit de corps' or 'brotherhood.' Since then an extensive and rich body of research on cohesion and group dynamics has emerged within the academic literature. As cohesion is of importance to a diversity of organizations (military, law enforcement, medicine, corporations, and athletic teams) the literature spans many disciplines and applications. A complete review of this literature falls outside the scope of this study; this review focuses on the main concepts and authoritative studies within the cohesion research most relevant for understanding the potential impact of integration of women in elite combat teams, such as SOF. For a much more complete overview of the field, see MacCoun and Hix's chapter on cohesion in the recent (2010) RAND study, *Sexual Orientation and U.S. Military Personnel Policy*.¹¹³

Any discussion of cohesion is complicated by the lack of general agreement on a common definition of cohesion and its components. Interestingly, despite the emphasis on its

^r RAND has been conducting research in the area of cohesion for decades. One of their most recent studies [RAND (National Defense Research Institute); (2010) Sexual orientation in U.S. military personnel policy: An update of RAND's 1993 study; MG-1056, Santa Monica, California] was conducted prior to the repeal of the Don't Ask, Don't Tell (DADT) policy and provides a comprehensive review of the literature on cohesion. Their most recent work for USSOCOM in response to the rescinding of DCAR was previewed in December 2013 and extends their earlier work to examine the importance of cohesion for SOF units and its implications for the potential integration of women into SOF units. To preclude duplication of effort, the CSOSR provided a general review of the history of cohesion for context and discussed several areas that may contribute to a better understanding of cohesion, especially in the context of SOF and relative to the chapters on sex-gender and organizational pressures.

importance to unit performance cited at the beginning of this chapter, the *Department of Defense Dictionary of Military and Associated Terms*¹¹⁴ does not include a definition for cohesion. Army Chief of Staff Edward Meyer (1979-1983) defined cohesion as “the bonding together of soldiers in such a way as to sustain their will and commitment to each other, the unit, and mission accomplishment, despite combat or mission stress.”¹¹⁵ Most scholars recognize that cohesion is composed of multiple characteristics, such as: “the strength of the bonds linking individuals to the group, feelings of attraction for specific group members and the group itself, the unity of a group and the degree to which the group members coordinate their efforts to achieve goals.”¹¹⁶ The 1992 Presidential Commission on the Assignment of Women in the Armed Forces added elements of mission completion and group survival to its definition:

Cohesion is the relationship that develops in a unit or group where (1) members share common values and experiences; (2) individuals in the group conform to group norms and behavior in order to ensure group survival and goals; (3) members lose their personal identity in favor of a group identity; (4) members focus on group activities and goals; (5) unit members become totally dependent upon each other for the completion of their mission and survival; and (6) group members must meet all standards of performance and behavior in order not to threaten group survival.¹¹⁷

In addition to the lack of agreement on the definition of cohesion, there are differing opinions on how to measure it.¹¹⁸ Most studies measure cohesion based on the subjective perception of the group members (self-reporting) through the use of surveys or interviews. However, each study uses a different data collection protocol and instrument. The differences in the conceptualization of cohesion and range of measurement tools make direct comparison across studies difficult. Finally, no single study exists that is considered the definitive work on this concept. The current understanding of cohesion is inferred from a wide array of studies, and reflects the heterogeneity of opinion within the field.

Many studies of cohesion, especially those that examined cohesion within military units, were conducted in the 1980s. That decade saw significant developments in cohesion research and efforts to implement programs to enhance unit cohesion. Both the U.S. Army Research Institute and The Walter Reed Army Institute of Research (WRAIR) ran research programs focused on cohesion. The WRAIR research raises a point of particular interest for this study on special operations teams. The research was linked to evaluation of the U.S. Army’s New Manning System, later called the COHORT Company Replacement Model, where COHORT indicated a focus on cohesion, operational readiness and training. Under COHORT, soldiers were kept together from entry into the Army until the end of their first tour of duty (three years), under the same leadership, when possible. The research did find that “horizontal bonding and cohesion” were higher for COHORT samples than for units served by the Individual Replacement System (IRS), where

by horizontal bonding and cohesion we mean a shared knowledge about who fellow unit members are based on common group experience, the formation of supportive friendships in the unit that extend beyond the duty day, a concern for the welfare of fellow unit members, and a general sense of group tightness, closeness, teamwork, and solidarity.¹¹⁹

The COHORT research included a Ranger battalion in its sample for comparative purposes. The study found that “Ranger battalion scores on all unit climate and cohesion scales were significantly above those in both COHORT and IRS unit samples.”¹²⁰ This raises an important point for this discussion. Although there has been a reasonable amount of research on cohesion in military units,¹²¹ the research was not conducted on the types of units with which this study is concerned—small, elite units operating in austere environments. So while there may be generalizations to SOF units that can be made from the research on cohesion in general and on the military in particular, the WRAIR study raises the possibility that there may be differences between general military units and special operations units that affect the development of cohesion.

The dimensions and contribution of cohesion to unit performance are related to but different from concepts such as *esprit de corps* and morale. Manning argued that cohesion, particularly as it has been used in the military since World War II, is a function of one’s primary group (hence ‘unit cohesion’) while *esprit de corps* is what connects military personnel to the larger organization.¹²² He goes on to say that “much of the combat soldier’s ability to endure the stress of combat depends not so much on the enemy as on the soldier’s relationships with those around him.”¹²³ This introduces the concept of social support, the “resources, including material aid, socioemotional support, and informational aid, provided by others to help a person cope with stress.”¹²⁴ The comfort that comes from the knowledge that your unit buddies ‘have your back’ arguably is a type of social support.⁵ The fear, for example, that women will be physically unable to get wounded to safety is a threat to social support resources, not cohesion, and is a threat that should be eliminated by the requirement for gender-neutral standards. Griffith and Vaitkus find that “cohesion facilitates the productivity of the group member and successful interaction within the group.” Social support, on the other hand, “enables individual adjustment and effective interpersonal relationships.”¹²⁵ Cohesion can be an “indicator of social support”¹²⁶ which makes it related to but different in kind from social support.

Popular culture, including films such as “Band of Brothers” has reinforced a perception that the social bonds loosely defined as cohesion will stimulate extraordinary performance.

⁵ It is possible, although we have seen no research to support it, that ‘saving my buddy’ may well become a goal or task on a battlefield, replacing the military mission with which the unit was originally charged and the action began. This is a phenomenon known as ‘goal displacement,’ where means become valued over ends and instrumental values become terminal values. (See Wilson, James Q. *Bureaucracy: What government agencies do and why they do it*. Basic Books, 2000, P.69.)

Current research on cohesion cautions that “a romantic mythology has grown up around these studies, leading people to suspend critical judgment regarding their methods, incorrectly recall their findings, and overlook subsequent research that has suggested limits in their generalizability.”¹²⁷ Today there is general agreement in the field that, “...cohesion cannot be defined purely in terms of comradely bonds”¹²⁸ and that the cohesion that arises from “shared commitment to the mission”¹²⁹ or what is called ‘task cohesion,’ is a greater contributor to performance than “liking for one’s colleagues”¹³⁰ or social cohesion.

7.2 Different types of cohesion

By the 1990s, two forms of cohesion that were different in kind emerged independently from various studies: ¹³¹social cohesion and task cohesion. The definitions of social and task cohesion, developed by MacCoun in 1993 have been widely used over the past twenty years and will be the reference point for this chapter. ¹³²

Social cohesion refers to the nature and quality of the emotional bonds of friendship, liking, caring and closeness among group members. A group is socially cohesive to the extent that its members like each other, prefer to spend their social time together, enjoy each other’s company, and feel emotionally close to one another.

Task cohesion refers to the shared commitment among members to achieving a goal that requires the collective efforts of the group. A group with high task cohesion is composed of members who share a common goal and who are motivated to coordinate their efforts as a team to achieve their goal. ¹³³

Studies have also drawn distinctions between horizontal and vertical cohesion. Both task and social cohesion are forms of horizontal cohesion, which takes place at the unit or group level (team, squad, crew). Vertical cohesion involves “downward and upward cohesion between leaders and followers.”¹³⁴ Vertical cohesion is thought to have a ‘significant impact on horizontal cohesion’ and is a ‘significant predictor of a soldier’s wellbeing over time.’¹³⁵ Siebold and Lindsay also noted the relationship between horizontal and vertical cohesion, concluding that “the data suggest that the responsibility for small unit cohesion, motivation and performance lies in the hands of those most capable of doing something about it, that is the leaders and soldiers in a unit.”¹³⁶ As such, vertical cohesion influences horizontal cohesion and underscores the importance of leadership in creating cohesion within the unit.¹³⁷ In their delineation of steps the military could take to build and strengthen cohesion, MacCoun and Hix emphasize “the key role that leaders play in building unit cohesion.”¹³⁸ The important role of informal leaders as well the presence of officers in special operations units makes an emphasis on leadership simultaneously important and problematic.

Additionally, the connection a leader can establish with his subordinates and the relationship of the leader with his superiors and peers is an important mechanism for all participants to engage with the larger institution. Note that if Manning’s definition of *esprit de*

corps referenced earlier in this chapter (a connection between the individual and the larger organization or institution) holds up, vertical cohesion becomes the mechanism by which it is generated.

7.3 Cohesion and group performance

The conceptualization of cohesion within relevant academic disciplines and applied fields has evolved substantially over the decades. A key development was the identification of types of cohesion discussed above: task and social cohesion, and vertical and horizontal cohesion. However, considerable debate remains over how to measure these different types of cohesion and their interrelationships, especially within a military setting.¹³⁹

The relationship between cohesion and performance is one of the most often studied aspects of cohesion as all organizations are interested in creating and maintaining high performing groups. Scientific studies on cohesion and performance have examined a broad range of variables related to cohesion such as: stressful events, individual adjustment, support among group members, leadership, group integration, perceptions of individual and group performance, group structure and size, and task orientation.¹⁴⁰ However determining the exact nature of the relationship among these variables and any causal effect on cohesion remains a challenge. This is particularly true within a military environment which adds the confounding stressor of combat.¹⁴¹

An interesting cautionary point for this study is raised by Mullen and Copper (1995) in one of the earlier meta-studies on the relationship of cohesion to performance which included military units. Although Mullen and Copper did not differentiate between task and social cohesion (they define cohesion as “result[ing] from interpersonal attraction, liking for or commitment to the group task, and group status or pride”¹⁴²), they note that of the 49 previous studies analyzed for their article, of which ten were conducted by the military or under contract to the military, the relationship between cohesion and performance was strongest for sports teams. They speculate that “the increasing effect of cohesiveness on performance [as it moves] from artificial groups, to non-sport, non-military real groups, to military groups, to sports teams...may map on to increasing degrees of salience and legitimacy of standards of excellence.”¹⁴³ They also suggest that the “increasing degrees of “group-ness” or entitativity”¹⁴⁴ across this chain may also be of importance in strengthening cohesion. This suggests that the elite-ness and tight intra-group relationships found on SOF teams may affect the ways in which cohesion play out.

Multiple studies indicate that high task cohesion is essential for performance, but that “social cohesion has no reliable correlation with [good] performance.”¹⁴⁵ Similarly, Beal finds “there is no clear evidence that stronger bonds within the group leads to higher level of productivity.”¹⁴⁶ This aligns with MacCoun’s conclusion that “task cohesion has a modest but reliable influence on performance.” He further notes that “social cohesion does not have an

independent effect after controlling for task cohesion.”¹⁴⁷ This directly counters the romanticized view of the effect of social bonds on battlefield performance noted earlier in this chapter.

The integration experience of African Americans in the military suggests that task cohesion can help create cohesion in heterogeneous (diverse) work groups and, perhaps, facilitate change in values in the larger organization. DeFleur, writing on the integration of women into the service academies notes research by Stouffer (et al.) in 1949: “In one of the first studies of blacks in combat units during World War II, soldiers cooperated with each other in military activities and as a result attitudes [towards the minority] become more favorable as contact between groups increased.”¹⁴⁸ Further research on the integration of African Americans found that “those who had more contact with minorities were more favorable if the contact involved equal status individuals engaged in cooperative and meaningful tasks.”¹⁴⁹ This recalls one of the conclusions from the previous chapter on gender: to facilitate full integration, females integrated into SOF units must be given tasks commensurate with their abilities as a special operator, not perceived ‘gender-appropriate’ tasks.

The nature of the work performed and the working environment, which is related to task, may also play a role in the level of cohesion. There is some evidence to suggest that arduous or stressful work conditions can increase cohesion within groups, especially if the outcome of the group’s work is successful. Bartone’s study of cohesion on Norwegian Naval cadets suggested that “the combined effects of being already familiar with one another and then experiencing as a group a stressful task or exercise that together seem to have more impact on cohesion than either factor alone.”¹⁵⁰ This parallels earlier investigation of African American integration by Moskos, which found “the most favorable conditions for this have been actual combat with close living, clear-cut goals, and common dangers.”¹⁵¹

Combat is, of course, an extremely stressful experience—some would say the quintessentially stressful experience as it requires participants to violate very strongly inculcated moral codes¹⁵² and poses an existential threat to participants. Wong’s 2003 monograph based on in-theater interviews with Iraqi prisoners of war, embedded journalists and U.S. troops, argued that motivation to fight was based on “the strong emotional bonds” and “bonds of trust” between military personnel,¹⁵³ connections he describes as social cohesion.¹⁵⁴ However, as others have argued, Wong simply dismissed the established distinctions between social and task cohesion (Wong says, “attempting to dissect cohesion into social or task cohesion and then comparing correlations with performance is best left to the antiseptic experiments of academia”¹⁵⁵), conflated the two, and labeled the phenomenon ‘social cohesion.’¹⁵⁶ MacCoun et al. argue that the conflation of social and task cohesion lead Wong to mistakenly label task cohesion’s contribution to performance as social cohesion.¹⁵⁷

The nature of the work performed may matter as well. MacCoun and Hix cite previous research in support of this point. “Chiocchio and Essiembre (2009) showed that the cohesion-

performance association was stronger when group tasks required a high degree of coordination among members.”¹⁵⁸ The high inter-dependency of special operations team members thus may position them well for the development of high task cohesion.

It is important to note that increased contact among majority and minority members in a group does not always lead to increases in cohesion or more favorable attitudes towards each other. Factors such as the nature of the groups’ activities and the larger organizational context also affect the outcome.

Time also is a factor in the development (positive or negative) of cohesion. As MacCoun and Hix stated, “several studies have shown that any negative effects of sociodemographic differences tend to dissipate over time.”¹⁵⁹ Full integration of a new demographic is a long-term process as it entails changing attitudes which can be strongly held. That said, most studies on cohesion are not longitudinal, and do not provide insight into attitudinal changes across the organization. One existing longitudinal study of gender attitudes in the Army does support this point. Although a survey conducted in 1988 showed a “significant negative correlation between percentage of women in the workplace and horizontal cohesion among male junior enlisted soldiers,” a more recent 1995 study demonstrated no significant relationship between the ratio of men and women in the work group and unit cohesion.¹⁶⁰ The military record on racial integration also supports the claim that the negative effects of heterogeneity diffuse over time. “A look at the distribution of attitudes held by white soldiers reveals opposition to integration goes from 84 per cent in 1943 to less than half in 1951”¹⁶¹ Nearly twenty years after Executive Order 9981: Desegregation of the Armed Forces (1948), Moskos’ research in 1966 reported results from the study of racial integration in the Korean War. “By this time integration of military units had become standard and again there was an increase in favorable attitudes towards minorities with very few tensions between black and white soldiers working together.”¹⁶² By the early 21st century, from 2009 - 2013, there were five or fewer race-based complaints per year filed under the military’s No FEAR Act,¹⁶³ suggesting a high level acceptance of integration. Chapter 9 supports this contention for the introduction of gender diversity to elite teams through interviews the Research Team conducted.

Although there does not appear to be any research directly associating social cohesion with high team performance, MacCoun and Hix identified several studies which demonstrated that “it is social cohesion rather than task cohesion (or together with low task cohesion) that is responsible for any negative effects” on team performance.¹⁶⁴ King observed that “interpersonal bonds can undermine combat performance just as well as encourage it.”¹⁶⁵ RAND’s 1997 study determined that

Multiple research efforts have shown that high social cohesion, or bonding on a social level, can have deleterious effect on performance outcomes or task

cohesion, because people start to prioritize friendship and social activities over performing their jobs and let their work suffer.¹⁶⁶

An association of high social cohesion with groupthink, “a mode of thinking that people engage in when they are deeply involved in a cohesive in-group, when members’ strivings for unanimity override their motivation to realistically appraise alternative courses of action,”¹⁶⁷ is another potential negative effect. Groupthink encourages conformity and can lead to poor decision making, a significant risk in any combat environment but particularly in the highly fluid environments encountered by special operators. Research by Hogg and Hains found that “too much cohesiveness is probably risky in almost all group decision making contexts.”¹⁶⁸ Hogg and Hains identify cohesiveness as “the principle antecedent” of groupthink as it encourages group members to reach consensus and agreement. In this process there is a “stronger endorsement of majority decision making, greater deference to the group leader, more rationalization of decisions made and a tendency for the group to comply with the leader.”¹⁶⁹

In addition to inefficiency and lack of task focus, high social cohesion can also be considered negative “when a cohesive unit develops values, attitudes, beliefs and norms contrary to the organization’s.”¹⁷⁰ This cohesiveness, or “loyalty to the team above all,” can prevent soldiers from reporting inappropriate acts and, can create an atmosphere in which “cruelty and barbarism become a group norm.”¹⁷¹ The My Lai Massacre in Vietnam is often cited in psychology textbooks as an incident in which group pressure to conform resulted in individuals taking actions that did not align with their personal values or those of the organization.¹⁷² At least an absence of peer-to-peer policing, combined with strong unit leadership may have been a factor in the 2010 murder of civilians in the Maywand District in Afghanistan by members of 5th Brigade, 2nd Infantry Division and the abuse of prisoners at the Abu Ghraib prison in 2003-2004. In both cases, a group leader directed the behavior of the group and the group members retaliated against whistleblowers who sought assistance outside the group.¹⁷³

The impact of high social cohesion need not be violent to negatively impact the organization as a whole. In 1994 a widespread cheating scandal at the U.S. Naval Academy led to the expulsion of 24 midshipmen. Many of those involved covered up for each other “contending that loyalty to one’s buddies was higher than loyalty to the honor concept at Annapolis.”¹⁷⁴

Bartone’s research on the Army COHORT program of the 1980s, which focused on keeping companies and battalions intact, has implications for understanding the role of leadership in cohesion. He notes that the COHORT program resulted in only modest increases in cohesion and argues that “familiarity alone is not enough, other aspects, training and influence of leaders play a role.”¹⁷⁵ This may be particularly important in a small group context where “leaders are perhaps in a unique position to shape how stressful experiences get understood by members of the group.”¹⁷⁶

A very high level of social cohesion within all male groups can be associated with hypermasculinity. Hypermasculinity is demonstrated in the “expressions of extreme, exaggerated, or stereotypic masculine attributes and behaviors. While this can be positive, in some cases this may have negative social consequences resulting in violent and criminal behavior”¹⁷⁷ including rape.¹⁷⁸ At the very least, a hypermasculine environment, by definition, excludes women. That said, research conducted by Rosen et al. on the relationship between hypermasculinity and cohesion in selected military units produced some rather interesting results.

Group hypermasculinity was significantly positively associated at the group level with both vertical and horizontal cohesion in male-only units. However, the relationship between these variables in mixed gender units was negative. Thus, the presence of women in military units does not simply decrease the levels of group hypermasculinity, but changes the relationship of group hypermasculinity to cohesion. With women present in the unit, hypermasculinity is no longer related to positive outcomes, and may even be related to negative outcomes.¹⁷⁹

The introduction of females not only reduced the hypermasculinity but reduced the positive valuation of hypermasculinity by the group. It also is worth noting that Rosen et al. found that not all members of a hypermasculine group felt equally positive about the value of the hypermasculinity—but went along because of peer pressure.¹⁸⁰ And finally, Rosen et al.’s study found that group hypermasculinity was positively related to perceived combat readiness (that is, the greater the hypermasculinity of the group, the more prepared the group believed itself to be for combat)¹⁸¹ and that gender integration may break down during combat deployments.¹⁸²

As of this writing there are no scientific studies of gender-integrated U.S. combat units. However, considerable research has been done of gender integrated groups in noncombat roles. Many of these studies have been conducted by military research institutes or under contract to the military.

In the 1970s the U.S. Army Research Institute for the Behavioral and Social Sciences conducted two studies that focused on the impact of women’s integration on performance. The Women Content in Units Force Development Test study assessed the performance of 40 combat support and combat service support companies during the (Fall 1976-Spring 1977) standard Army Training and Evaluation Program (ARTEP). This study showed that the units’ ability to meet ARTEP standards was not affected by the gender ratio in the unit, with women constituting up to 35% of personnel.¹⁸³ Moreover, the eighteen month-long study found that officers perceived “leadership, training, morale, and personnel turbulence affect unit performance much more than the proportion of women. Women were readily accepted, particularly when commanders accepted them and the participants felt ARTEPs measured essential job performance.”¹⁸⁴

The second study, *Women Content in the Army REFORGER*,¹⁸⁵ examined unit performance during field exercises in conjunction with the annual Return of Forces to Germany (REFORGER) exercise. The study included combat support and combat service support units, specifically military police, signal, medical, maintenance, supply and transport units. Women made up approximately 10% of each unit. The study found that the presence of women had “negligible impact on unit performance.”¹⁸⁶

As a third example, the 1992 Presidential Commission Report stated that, “Evidence does exist, however, regarding cohesion in non-combat aviation units with demanding missions that have become integrated. It shows that cohesion either remained at the same level as in the all-male unit or improved after entry into the unit.”¹⁸⁷

Shortly after the Presidential Commission issued its report, the General Accounting Office released its study of mixed gender units deployed in operations Desert Shield and Desert Storm. In the Persian Gulf War women made up 7% of the nearly half-million U.S. service members deployed. The study found that “Gender was not identified as an issue effecting cohesion.”¹⁸⁸ The report stated:

The people we met with did not identify gender as a component or determinant of cohesion and generally considered bonding in mixed units to be as good as, and sometimes better, than in single-gender units.¹⁸⁹

In 1997 RAND conducted a study for the Secretary of Defense to assess the extent and effects of the integration of women into previously closed occupations that were opened in April 1993. Of particular interest was the impact on readiness and morale. The study found that

... gender differences alone did not appear to erode cohesion. Cohesion was reported high in units where people believed the command emphasized unity and the importance and necessity of all members and divisions [organizations] in accomplishing the mission.¹⁹⁰

The RAND study distinguished between task and social cohesion and discussed the relationship of each to performance, finding that

When people thought they performed well as a unit, they rated cohesion as high or medium. Medium raters did not necessarily see their situation as problematic. When social cohesion was low, but coupled with medium or high task cohesion, overall cohesion was rated medium. Only when both social and task cohesion were low did people rate overall cohesion as low.¹⁹¹

In the RAND study, in units without high cohesion, gender was reported as a secondary issue, though not as important as divisions based on work group or rank. The study determined that “When it [gender] was perceived as having a negative effect, it was generally because

gender is one way that people break into categories when conflict surfaces, because structure or organizational behavior highlight gender differences, or because dating occurs within a unit.”¹⁹²

Finally, some RAND study participants cited the presence of women as raising the level of professional standards, with some participants admitting that “some now-abandoned types of social bonding between men were unprofessional and detracted from the work environment.”¹⁹³

In a meta-analysis of five studies, three of recent actions with U.S. deployments, Rosen et.al. reported a highly variable relationship between gender composition and group cohesion, ranging from nothing to rather strong. The five studies reviewed included combat service and combat support companies. All five studies measured horizontal cohesion, although they all used different methods, contributing to difficulties with comparisons.¹⁹⁴ Rosen et al. hypothesized that a range of factors could account for the differing results among the studies, including the size of the unit, the level of violence in theatre, leadership policies towards gender, and the individual soldier’s support for the mission.¹⁹⁵ The authors also concluded that “cohesion need not suffer if the culture of hypermasculinity is replaced with one of ‘ungendered professionalism’ as the bond that holds unit members together.”¹⁹⁶

It appears that nothing has yet been published based on research conducted during the large scale U.S. military operations in Iraq and Afghanistan that followed 9/11. Though women were still banned from assignment to many combat positions during this time, many were ‘attached’ and so still participated in action in combat. These cases may provide some valuable insights into the potential impact of cohesion on gender integration, although with the lack of systemic research on this subject such evidence from Afghanistan and Iraq remains anecdotal.. However, the ‘attachment’ rather than the assignment of women to combat units still sent a clear message to all that the target occupation (military combat) was a gendered occupation, which would affect the relationship of attached women to the unit.

This assessment of the potential impact of gender integration on cohesion in SOF teams began with the recognition that cohesion is a complex phenomenon that is not yet well understood or fully studied. Consideration and study of the impact of gender integration on cohesion in SOF elite units must take into account both social and task cohesion. High levels of task cohesion appear to be the most highly correlated with performance and seem to enable higher levels of social cohesion.

The 2010 RAND study chapter on cohesion provided a list of factors that are known to contribute to cohesion. These include “propinquity (spatial and temporal proximity...); shared group membership...; attitude similarity; success experiences...; shared threat...; leadership and training.”¹⁹⁷ Leadership is emphasized as particularly important, with leadership ranging from the institutional to the local level. This ties the discussion back to vertical cohesion, a dimension of cohesion addressed only briefly here. Leadership is responsible for the development of

policies such as those found on recently integrated Navy ships, in which junior male sailors were instructed to “stay away from the women”, as well as separate berthing which exacerbated divisions along gender lines. As “...both official and unofficial information use to be communicated in berthing areas, either verbally or by posting notices” female sailors often found themselves lacking key job-related information when information was not posted in their area or males were reluctant to enter their berthing area.¹⁹⁸ Such unintended consequences were reported with the Canadian forces as well, in which an interview respondent reported that

women had a detrimental effect on combat effectiveness. However, this was not the fault of the women themselves, but were self-imposed by the military through administration problem and separate facilities for women (toilets and showers), which illustrated women’s ‘differences’ and ascribed a separate status to women. Since the initial difficulties, problems with mixed-sex units on field exercise have dissipated.¹⁹⁹

Attitudes towards integration by individual team members and within the organization overall can impact cohesiveness. In groups, and especially in small groups, where high social cohesion among the majority members excludes members of a newly integrated demographic, overall group cohesion is likely to be lower, especially if exclusionary and boundary-heightening behaviors related to tokenism appear.²⁰⁰

7.4 Cohesion and SOF

Most research on cohesion is done on an individual’s ‘primary’ unit, that is, the smallest unit in the workplace, and there is a reasonable body of literature on cohesion in the military. That said, at present there appears to be no research on special operations units or the elite combat teams with which this study is concerned, although there were a few indicators that special operations teams might differ from the rest of the military in the ways in which they develop and express cohesion. The research also suggested that factors found on special operations teams such as the interdependency of team members, the complexity of the tasks, and the stressful environments would lead to very high levels of task cohesion. The close-knit social environment of the teams, the gendered nature of the military occupation and the elite status of the teams in that occupation, combined with the isolation experienced on deployment has the potential to allow these all-male teams to develop high social cohesion with the attendant dangers of hypermasculinity. Finally, there is the potential for the introduction of females, a dimension of diversity, to have a negative impact on cohesion in the near term, but no lasting effects.

The retired SOF senior leaders survey discussed in the previous chapter provides a small, albeit caveated data point on perceptions about cohesion and SOF. Figure 8 shows the results of a second question on the survey, “What effect would an assigned female have on unit cohesion at the SOF tactical team level?” (The first question asked, “What effect would an assigned female have on unit effectiveness at the SOF tactical team level?”) Note that responses to this question

are more skewed to the (negative) right than answers to the question on effectiveness. It would be useful to pursue this distinction with a more rigorous study.

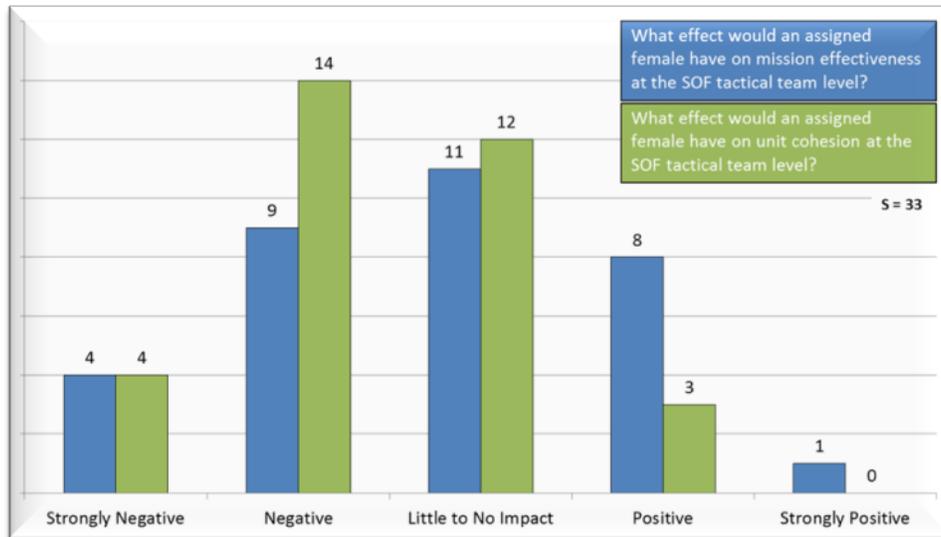


Figure 8: Results of survey of retired SOF senior leaders on females and mission cohesion

7.5 Summary

Cohesion is a complex and poorly understood phenomenon, yet one that is posited to be at the core of a group's ability to perform as a high-performing team. There appears to be general agreement in the research community on the distinction between task cohesion and social cohesion, and the orthogonal dimension of vertical cohesion reflecting the importance of leadership. There also is agreement (although contested by some such as Wong) that task cohesion demonstrably contributes to high performance, and social cohesion does not. It is possible that high social cohesion can contribute to negative performance with the emergence of groupthink, and the potentially dangerous behaviors that can emerge from hypermasculine and other hyper-cohesive environments. And although the military is a gendered occupation, the pervasiveness of hypermasculinity and its associated negative consequences in military units is still uncertain.

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8. ORGANIZATIONAL CULTURE

The discussion to this point began with the distinction between sex and gender, and has argued that although the directive driving this study is concerned technically with the opening of certain OS to females, the critical change in the organization will come when definitions of gender-appropriate behavior change. This will be signaled when the evaluation turns from the appropriateness of the participation of a class of individuals (women) to the evaluation of the capabilities and contributions of particular individuals, regardless of sex. When there are no longer ‘female special operators’ and ‘male special operators’ but just ‘operators,’ the occupations will have been degendered. Degendered occupations will support greater cohesion at the unit level as the temptation to create in-groups based on sex will be significantly lessened.

This requires a change in the values and attitudes held by members of the special operations community, values and attitudes that are expressed through behavior. These values, attitudes, behavior and artifacts that are imbued with meaning and so important to the organization, are referred to as part of an organization’s culture. Although this study is focused on dynamics at the team level, those dynamics are shaped, directed and guided by the values and attitudes found in the teams’ contextualizing organization. In the case of SOF, that organization would be the U.S. military and, for the components, the culture of the parent military service (Army, Navy, Air Force, or Marines).

Interest in organizational culture, especially as it relates to issues such as performance, morale and even economic profitability, emerged within the business community in the 1980s. Today culture is recognized as a factor in an organization’s success, just as are technologies in the work environment, policies, procedures, and other social dimensions of the workplace. Companies place high value on creating high performance organizational cultures. Some believe culture is so important that it must be addressed at the strategic level; as former chairman and CEO of IBM, Lou Gerstner, noted, “Culture isn’t just one aspect of the game, it is the game.”²⁰¹ A strong corporate culture “from the sales associates to top executives” is a critical factor in Apple’s success under Steve Jobs.²⁰² Much of Google’s success has been attributed to its “culture of innovation.”²⁰³ Organizational cultures can set the organization up for failure as well. The Congressional panel investigating the pre-9/11 intelligence failures cited a stovepiped culture in the intelligence community and a resistance to information sharing as an underlying cause.²⁰⁴ The community underwent a major restructuring with attempts to consolidate under the Office of the Director of National Intelligence in an effort to address this problem. An investigation of sexual assaults at the U.S. Air Force Academy in 2003 pointed to a long-standing climate “unwelcome to women” as a primary cause.²⁰⁵ This included the permitted production of Air Force Academy alumni gear by the last all-male graduating class of (1979) with the logo LCWB, standing for “last class without broads,”²⁰⁶ and surveys eliciting comments from cadets such as “women are worthless and should be taken away from USAFA.”²⁰⁷ The

beginning of a fix for this problem was a change in senior leadership, including the removal of four senior officers and the demotion of a three star general.²⁰⁸

Finally, recall that this study focused on gender, where gender is a set of behaviors culturally associated with sex categories—and the *values* placed on those behaviors. Opening combat positions to females problematizes a particular association of behavior with sex (females aren't supposed to fight) —specifically, it challenges the notion of gender for the American military (although, perhaps not for the general American population). It is this challenge that this study addresses.

8.1 Organizational culture defined

An organization's culture is the shared understanding among members of that organization of the work environment, including common assumptions and beliefs of its members, and the values and attitudes found in complexes such as 'gender-appropriate behavior.' An organization's culture is what Weick and others would call "collective sense making" of the environment.²⁰⁹ It tells members of the organization which behaviors and artifacts are important, which kinds of people should be associated with what kinds of behaviors, and how to value the people who produced expected behaviors and punish those who do not.

Definitions of organizational culture vary, although most include the concepts found in Edgar Schein's definition:²¹⁰

[An organization's] culture can be thought of as: 1) a pattern of basic assumptions, 2) invented, discovered, or developed by a given group, 3) as it learns to cope with its problems of external adaptation and internal integration, 4) that has worked well enough to be considered valid and, therefore 5) is to be taught to new members as the 6) correct way to perceive, think, and feel in relation to those problems. The strength and degree of integration of a culture is, therefore, a function of the stability of the group, the length of time the group has existed, the intensity of the group's experiences of learning, the mechanisms by which the learning has taken place, i.e. positive reinforcement or avoidance conditioning, and the strength and clarity of the assumptions held by the founders and leaders of the group.²¹¹

The culture of a formally constituted organization is different in nature than that of groups which have emerged organically (i.e. without explicit intent) such as ethnic groups. A formally constituted organization usually is self-conscious about the values and the attitudes of its members. It accepts for 'membership' or participation only those who subscribe to its values and punishes or expels those who fail to demonstrate behavior in accordance with those values and attitudes.

An individual's acceptance into an organization thus requires that he subscribe to its policies, procedures and formal (and informal) reward structures. The organization's values are

embodied in these behavioral guides. For decades, the American military stated its belief that women should not fight (a different statement than women *are not able* to fight) by closing combat OS to females. The reversal of that policy is a restatement of beliefs about what it ‘means’ to be a woman (and therefore, a man) as it will change the behavior of the sexes. However, as will be argued in this chapter, while forcing behavior change through policies and procedures is a necessary step towards changing values, it can take up to 10 years or more after the forced behavior change for the desired behavior to be driven by the internal value structure of the participants rather than by external drivers.

The rather arcane argument in the organizational development literature between organizational culture and organizational climate has relevance for this study.²¹² As is the case with most oppositions, this study finds that the most fruitful position incorporates elements of both.

Strong proponents of the ‘organizational culture’ camp see an organization’s culture as an emergent phenomenon, a product that emerges from the interaction among members of the organization. The organization’s culture thus exists only as the participants engage; the environment for that engagement is created *by* the engagement. This is a recursive model of the phenomenon of culture – the culture is created by the engagement, and simultaneously forms the environment for that engagement. As anthropologist Clifford Geertz put it, cultural systems thus become both models of behavior and models for behavior.²¹³

Proponents of an ‘organizational climate’ perspective, embodied in the theory put forth by Kurt Lewin, argue for an analytical separation between the organization and the participant.²¹⁴ The organization exists separate from the participant, and provides an analytically describable and persistent environment for engagement. It is important to note that that this does not require that the organization—the environment-creator—have objective status, i.e. be something that could be touched or seen. The ‘organization’ for proponents of Lewin’s theory can consist of power relationships or rules for social engagement, as well as the physical plant. For advocates of this approach, changes in the attitudes, values and behavior of the participants are a function of changes in the environment—but those changes in the participants do not (necessarily) change the environment. And the environment—the organization—has existential status (an existence) that continues as given individuals move in and out.²¹⁵

Most definitions of organizational culture take neither the radical post-modern position of complete emergence as described by the ‘culture’ part of the culture/climate debate, nor the organization-as-separate-from-participant position required by other theory, but rather find a more moderate spot between the two. This is true of Schein’s definition, given earlier, and repeated here:

[An organization’s] culture can be thought of as: 1) A pattern of basic assumptions, 2) invented, discovered, or developed by a given group, 3) as it

learns to cope with its problems of external adaptation and internal integration, 4) that has worked well enough to be considered valid and, therefore 5) is to be taught to new members as the 6) correct way to perceive, think, and feel in relation to those problems. The strength and degree of integration of a culture is, therefore, a function of the stability of the group, the length of time the group has existed, the intensity of the group's experiences of learning, the mechanisms by which the learning has taken place, i.e. positive reinforcement or avoidance conditioning, and the strength and clarity of the assumptions held by the founders and leaders of the group.²¹⁶

Schein's definition of organizational culture embodies concepts from both the organizational culture and organizational climate camps. His definition has participants within the organization engaging partially within an environment provided to them ("taught to new members") and partially created by them ("invented, discovered, or developed by a given group"). Schein's approach thus allows the engagement among participants to create values (including the exclusionary ones that are called prejudices, leading to discriminatory behavior, as well as inclusionary ones leading to integration) as well as allowing those same participants to adopt values that are provided to them through policies and procedures, and by other participants.

Schein's definition is predicated on the assumption that a social organization is a complex, quasi-open system.²¹⁷ To characterize a social organization as a quasi-open system is to recognize that there always is some exchange with the environment (people move in and out of the organization, information is constantly being exchanged with other organizations) although there are some aspects of the organization that may be characterized as remaining relatively constant. The military has a structure, for example, that endures over time, and a set of attitudes and beliefs held by its participants that may give it a recognizable character. However, as the military interacts with civilian society and with more formal institutions such as Congress, it either changes organically or is forced to change through Executive Order or law. Information presented earlier in this study shows that levels of approval of women in combat differs significantly between the American public and (parts of) the American military. The General Dempsey memorandum, quoted in the introduction to this study and which is serving as the impetus for this and related studies, is a requirement for the military to fully align its values in this area with those of the general American public.

Schein also saw organizations as complex systems. To characterize a social organization as complex is to recognize that it operates simultaneously on multiple timescales and different geographic scales, with interlocking relationships of authority – and all the interdependencies these scales and relationships require. For example, strategy in the military is formulated on much longer time horizons than tactical actions. And the relationships of the theater special operations commands (TSOCs) with their relevant geographic combatant command (described more fully later in this chapter) are an excellent example of interlocking relationships of

authority. Complex systems also are dynamic systems. They never reach equilibrium (what does ‘organizational stability’ really mean?). The military is always changing. Policies in force today are abandoned tomorrow, and new ones (such as the target of this study) emerge. The complexity of the organizational system also means that it is nonlinear—small changes in initial conditions may yield large changes in the nature of the system. It is quite possible that a change in policy, such as that which requires certain positions to be open to women when they were not previously, can have significant unintended consequences as it reverberates through the organization. Although there are steps that can be taken to guide the organizational change (that will be delineated later in this chapter), the complex nature of social organizations means that any change is highly unlikely to occur at the pace and in the manner in which leadership wish.

The attitudes and values or the frames of reference which comprise an organization’s cultural complex are produced through interaction amongst the individuals in a group and its external environment and expressed through policy and procedure documents, training, and in other ways, but cannot be observed. As Schein said, “the essence of a culture lies in the pattern of basic underlying assumptions, and after you understand those, you can easily understand the other, more surface levels and deal appropriately with them.”²¹⁸ Indeed, the subconscious assumptions may be “the most elusive yet powerful layer of culture...”²¹⁹ Not only are these underlying assumptions difficult to consciously identify, they are the most difficult aspects of culture to change. These often are assumptions related to power, to definitions of community, to time, to personhood and the like. Most participants cannot articulate these underlying concepts – yet they act in accordance with them and can exhibit reactions including anger, fear and hostility if the assumptions are violated. Definitions of gender, for example, are highly tied up with personal identity. Gendered occupations speak to personal identity, so efforts to degender an occupation can feel very threatening to those in the occupation’s defining gender.

An iceberg metaphor is often used to illustrate the relationship of these implicit, culturally-based assumptions to behavior. The bulk of the iceberg—the part that keeps the berg upright—is below the waterline and so invisible to us. Yet it is the below-the-waterline portion of the berg that keeps it stable and upright. See Figure 9.

In the case of a formal organization, behaviors and artifacts can be controlled and managed by organizational leadership and management. The pictures and symbols an organization chooses to display around its offices and present through its public presence, can



Figure 9: An iceberg metaphor for culture

say a lot about an organization's culture. For example, how soon will women in full battle-rattle be portrayed on SEAL recruiting posters? Or will they be shown only in 'gender-appropriate' roles, talking with women from the local population, or in advisory situations? The nature and structure of ceremonies and rituals an organization establishes provides information about relative power and importance of certain individuals as determined by (for example) invitation lists, seating arrangements, and orders of precedence. The language an organization uses provides information about how it classifies individuals. Are there 'female special operators' or just 'special operators'? And the policies and procedures an organization puts in place conveys information about how the organization defines and values its members. Do females get different (special) treatment than males, assigned only to certain jobs? Or are all utilized strictly on the basis of their competencies? All these dimensions can have a significant impact on the self-selection processes of the individuals who chose to join, and the attitudes and values of individuals who have joined.

Behaviors, including language, ceremonies and rituals, are an important and visible embodiment of some of an organization's attitudes and values. Behaviors can play a key role in defining the organization's identity.²²⁰ As mentioned earlier in this discussion, the assignment of various gender-based roles to women on the basis of their sex (like 'peacekeeper' or 'negotiator') can be an indication of much deeper attitudes about the appropriateness of using females in other roles such as fighter or weaponer. NASA's formal exclusion of women from its most prestigious group, the astronaut corps, for the first 20 years of its existence, was based largely on the requirement of flying hours in fighter jets for admission to the training program (note: not combat experience in the jets, just flying hours). As the fighter pilot OS was closed to women because it was a combat position—women could not become astronauts. This exclusion, according to Congress and others, was a reflection of the gendered nature of the entire organization.²²¹

Reward structures—both implicit and explicit—are usually very good places to identify organizational values as they are formal statements of valued behaviors. Citations for the Medal of Honor, the United States' highest military honor, include words such as "conspicuous gallantry," "undaunted courage [and] fighting spirit," and "extraordinary valor."²²² These are not terms used to describe feminine behavior. In order to perform at a level warranting the Medal of Honor, U.S. military personnel must exhibit what Americans perceive as masculine qualities.

It is important to emphasize again, as was argued in the chapter on gender, that females may exhibit behavior deserving of these masculine adjectives such as those used to describe behavior deserving of a Medal of Honor. That the highest American military honor goes to individuals exhibiting behavior Americans class as masculine is a statement about the gendered nature of the occupation, about the American perception of the essential 'maleness' of combat, not about the capabilities of females to demonstrate such behavior. Full integration of females into combat roles may see these words take on a less gendered aspect.

Organizational narratives or stories are another place to look for organizational identity and the values that are key to that identity. Key narratives are usually the informal ones, the ones that are told offline to newcomers. In listening to those stories, the newcomer learns what makes heroes heroic. Is it strength? Moral character? Commitment to the group? Willingness to engage in certain types of behaviors (like heavy drinking or womanizing, the second of which specifically excludes females as heroes)? Refusal to let one's family be dishonored? The ability to cause an unwanted outsider to leave or quit (through hazing or harassment)? How is 'unwanted' defined? As a wuss? A girl? What patterns appear in success stories? What stories do others (outsiders) tell of the group, and how does the group respond to those stories? And the failures are equally important. How are those failures told? What caused the failure? What could have prevented the failure? Again, the off-line stories, not the formal causal analyses or operational debriefs, are where organizational values are often identified and communicated.

In addition to investing behavior with meaning, groups invest artifacts of various kinds, ranging from clothing to organizational graphics and iconography, with symbolic meanings that reflect the attitudes and values that underlie a cultural complex. The emotional investment in the flashes and patches that certain individuals are allowed to wear on uniforms and others are not, is an example. On one level, the flashes and patches convey information about organizational membership and experiences. On another, they convey important information about organizational pride, create ingroup/outgroup categories amongst members of the same military service, and can provide information about implicit power hierarchies to those who are initiated into the intricacies of the relative standing of various units or branches of service. As women were prohibited until recently from belonging to a combat unit, a woman viewing insignia of such a unit was looking at a sign of membership of a club to which she could never belong. Pictures of proud Navy SEAL units posing with shirts off and abs flexed send a message about the identity of the members of that unit – it is a picture into which a female would have trouble fitting.

Although behavior and artifacts are visible and easily accessible, it is the attitudes and values that drive the behaviors and imbue the artifacts with meaning that are the keys to the cultural complex. Since combat experience is the essence of the military experience, it is very important in military promotion reviews. Excluding females from combat units had career implications for women. Think of the situation at NASA where membership in the organization's elite unit, the astronaut corps, was a function of sex acting as a proxy for gendered behavior. Women could not belong because they could not fly fighter jets because military positions were closed to women because it was not appropriate for women to fight. This was a statement of cultural value represented through organizational policy. General Dempsey directly addressed the statement of value as embodied in (difficulty of) access to top military rank through his second guiding principle, "Ensure all Service men and women are given the opportunity to succeed and set up for success with viable career paths."²²³

It is also important to remember that artifacts and behaviors are multivalent—they have many meanings. For many, for example, the American flag is a symbol of freedom and democracy. For many others around the globe, it is a symbol of economic and cultural colonialism. It is here that interpretive biases such as mirror-imaging come into play, where the analyst or the participant assumes that others see the same meaning in behavior or artifacts as he does. The participants in the shirt-free Navy SEAL photo may simply have been enjoying the sunshine in Coronado.

Formal organizations, such as businesses or public sector organization's such as the military, promulgate formal statements of values. This is an example of the separate existential status afforded to a dimension of the organization as described in the earlier discussion on organizational climate. These formal values are created, promulgated and sustained by leadership. At their highest level, the values are put forward by leadership in the form of a creed or an explicit value statement. The 'SOF Truths' are a formal statement of organizational value:

- Humans are more important than hardware.
- Quality is more important than quantity.
- SOF cannot be mass produced.
- Competent SOF cannot be created after emergencies occur.
- Most special operations require non-SOF assistance.

Espoused values are not static and can change over time. The five SOF Truths were written in 1987 by a member of the Congressional Research Service, a retired Army colonel. However, by the mid-1990s the fifth Truth had disappeared from the list. Though recollections of the reason for its disappearance are imprecise, they are linked to concerns that the fifth Truth meant that SOF needed assistance, especially from general purpose forces.²²⁴ The fifth SOF Truth was re-introduced by Admiral Olson in late 2008.

"It's being included now so that we all understand the importance of force enablers and the contributions they make to mission success. To think otherwise would levy unrealistic expectations as to the capabilities SOF bring to the fight."²²⁵

This change in espoused values as expressed in the SOF truths reflects how senior SOF leadership now views SOF in relationship to the services and interagency community. How this change will lead to a change in SOF identity, both self-defined and defined by others, remains to be seen.

Recognition of the gap between an organization's espoused values and the values expressed through the behavior of organizational participants stimulate the promulgation of new policies, new organizations to enforce those policies (think of Equal Employment Opportunity/Affirmative Action offices, for example), new punishment/reward structures – and

occasionally, redefinition of jobs or occupation. The stimulus also can be external pressure, either direct or indirect, such as that experienced by NASA from Congress and the media forcing the agency to open the astronaut corps to females.²²⁶ Leadership can stimulate desired behavior through changes in reward structures and in other policies and procedures, although the actual behavior and experiences of members of the organization also will play a strong role in charting the course of the value and identity change.

The policy decision to open certain OS to women that had previously been closed to them that stimulated this study are an example of a change in espoused values. Until January 2013, there were organizational statements that women should not fight (the statements precluding their participation in the OS). These statements of prohibition said nothing about women's ability to fight. In January 2013, those espoused values changed. However, as detailed in the discussion on gendered occupations, ensuring that activities at the unit level and on SOF elite teams exhibit these new values is a much more complex endeavor than issuance of an order.

8.2 Which organization?

It can be very misleading to think of a set of values as held equally strongly by all members of the organization, even within an organization where cultural mechanisms can be relatively formally and deliberately controlled (as opposed to, for example, an ethnic group or a community). Rephrasing Tip O'Neill's comment on politics, 'all culture is local.' Attitudes and values are not homogeneously distributed across a given population, as presumed by models promulgated by, for example, the British structural-functional anthropologists (such as E.E. Evans-Pritchard²²⁷) and others such as Hofstede.²²⁸ And even if certain values are held across an organization, they probably will not be held with equal strength by individuals in all parts of the organization. As with any systems problem, delineation and description of the system of interest becomes critical.

For analytical purposes organizations, very large organizations can be described as exhibiting a dominant organizational culture and many subcultures that are distinctive from the dominant culture. Subcultures exhibit their own shared values, beliefs and assumptions; these influence the way in which their members interact with each other, and the way in which they interact with the dominant organizational culture.²²⁹ Subcultures can form along many lines as individuals shift their primary identities as they move from one social context to another: functional specialization (i.e. pilots, mechanics), geographical location, administrative designation (i.e. J1,J2,J3), rank (officer, NCO), service (Army, Navy, Air Force, Marines) and other aspects of identity (gender, ethnicity, religion, sexual orientation). Every member of an organization simultaneously subscribes to the values of the dominant organization as well as to those of one or many subgroups. As emphasized earlier, not everyone in each group or subgroup holds the groups values with equal strength.

The values and attitudes held by an organization's subcultures are not necessarily in conflict with the values of the dominant organization: subcultures may align with the dominant culture on some issues but not on others.²³⁰ The behavior of subcultures, therefore, must be understood within the larger context of organizational dynamics. Subcultures are not static; they change over time through the process of interactions within the subculture, with other subcultures and the dominant subculture.

There are three general perspectives on the relationship between the culture of the dominant organization and its subcultures. The first perspective sees significant pressure from the dominant organization to present a unified front and to weakly acknowledge or suppress subcultures. In the second, the values of the dominant organization are seen to guide (but do not determine) a dynamic and ongoing interaction among its suborganizations with their divergent values. And in the third, the distinction between the dominant organization and the subcultures is dissolved, and the whole is seen as the product of an ever-changing, always emerging dynamic environment of multiple values.

The approach emphasizing the importance of a clearly articulated, strongly held and uniformly distributed (to the extent possible) system of values at the supra-organizational level requires very strong leadership. Socialization processes are utilized extensively to inculcate values in new members and minimize dissent. In such organizations a "strong and unified culture is often the goal of management and presented to be the ideal culture."²³¹ While such an organization will give its members a clear sense of self, and give the organization stability and direction, it can hold the seeds of its own destruction.²³² Organizations with values held strongly and uniformly throughout the organization tend to be resistant to change. Rapid environmental changes that stimulate significant changes in values can challenge the organization's basic assumptions.²³³

An organization can also be seen as the product of its subcultures. This perspective describes organizations as composed of "overlapping, nested subcultures that coexist in relationships of intergroup harmony, conflict, or indifference."²³⁴ The military is no more and no less than the Army, Navy, Air Force and Marines. This leads to a much more dynamic environment than the first paradigm, as "different subcultures within the same organization experience different kinds and rates of change."²³⁵ This is both an asset and hindrance to organizational change. Boisnier and Chatman argue that even organizations with strong cultures "can use subcultures to become more agile and to drive innovation."²³⁶ However, the complexity and shifting landscape that results from the multiple perspectives and agendas that arise from the different subcultures' value sets can hinder an integrated change effort.

The fragmented or emergent organizational perspective focuses on ambiguity as the central characteristic of organizational culture. Subcultures are viewed as fluid and temporary, the outcome of shifting coalitions that form and reform around specific issues. This brings us

much closer to a constitutive, reflexive emerging notion of culture, and one that is characteristic of an organization difficult to ‘manage.’

These three perspectives are not mutually exclusive and, as is usual, a useful analytic frame draws on all three. USSOCOM is a military organization and so has many attributes associated with a ‘strong’ culture such as top-down leadership and a clear, articulated set of values to which all are asked to subscribe. Yet the SOF community prides itself on its flexibility, creativity and adaptability. Navy SEALs are quick to differentiate themselves from Army Special Forces, and all in uniform recognize the distinction between military and civilian. So any discussion of SOF’s organizational culture must begin with the question “What is SOF”?

The definition of the target for the cultural change that will happen with the opening of special operations OS to women is particularly problematic. Take, for example, the community with which this project is engaged. Special operations teams are composed of personnel who wear the uniforms of the services: Navy, Army, Air Force and Marines. As is the case in the military, service personnel also fall under the jurisdictions of unified commands such as USSOCOM (a combatant command). However, USSOCOM is unique among the mission commands.

This command [USSOCOM] is different from other unified commands, as it has both mission authority and its own budget authority. It differs from the services for the same reason. The passage of the Goldwater-Nichols Act in 1986 gave all other unified commands mission authority, but their personnel and equipment are still provided by the services. Although USSOCOM—like the services—recruits, trains, and equips SOF personnel through its Major Force Program (MFP)-11 responsibilities, it also has mission authority (deriving from its role as a unified combatant command), which the service components do not.²³⁷

So USSOCOM functions both as a combatant command with mission responsibilities and a military service with force provider responsibilities.²³⁸ All SOF personnel are assigned to USSOCOM which provides them with special operations-specific training and equipment, yet those same personnel receive their paycheck and uniform from the services.¹

¹As the force provider for special operations, USSOCOM is responsible for the manning, training and equipping of all special operations forces. Per 10 USC, 167, USSOCOM is responsible for developing SOF strategy, doctrine and tactics as well as preparing and submitting to the Secretary of Defense, program recommendations and budget proposals for special operations forces and for other forces assigned to the Special Operations Command. Post the February 2013 change to the Forces For Combatant Command memorandum, all special operations forces, to include the Theater Special Operations Commands, are now assigned to USSOCOM. This change formally assigns responsibility for the readiness of all SOF (including the TSOCs) to USSOCOM. SOF permanently stationed OCONUS remain OPCON to their respective geographic combatant command. USSOCOM assumes programming, planning, budgeting and execution responsibilities for TSOC resourcing and receives transfer of corresponding service Combatant Command Support Agent (CCSA) funds from the respective Geographic Combatant commands for the TSOCs.

It is important to note that it is with USSOCOM's service role that this study is directly concerned. However, the command's function as a combatant command cannot be ignored in a discussion of organizational culture.

Once special operators move overseas (outside the U.S.), USSOCOM shares command authorities over them with the relevant geographic combatant command (GCC) through the TSOCs. USSOCOM has the authority to 'recruit, train and equip' for the TSOCs, while the GCC retains operational control (OPCON) over the personnel.²³⁹

In any organization, boundaries induce tension, no matter how amiable and collaborative the leadership and staff. The relationship between the GCC and TSOCS is, and will be no different. In general, there will always be a certain amount of tension in the relationship whether it be about funding/resources or missions. Tension, in general, is on-going, dynamic, will exist between the GCC and TSOCS (as it does between any bounded organizations), and is pertinent to the question of the system boundary when discussing the special operations forces community

As part of the operational military arm of U.S. policy, USSOCOM works closely with the civilian side of the DOD. USSOCOM's primary formal engagement is through the Assistant Secretary of Defense (Special Operations and Low Intensity Conflict) (ASD(SOLIC)) as per Goldwater-Nichols, although the command also uses other avenues to provide appropriate input to policy debates that affect utilization and deployment of SOF. Under some definitions, then, ASD(SOLIC) becomes part of the SOF community.

And USSOCOM itself is composed of both military and civilian personnel. Of the military personnel (and of those civilians who are retired military) working at USSOCOM, the vast majority have no special operations experience.²⁴⁰ This has established an informal and largely unacknowledged hierarchy within the headquarters staff, with operators and former operators at the top.²⁴¹

In addition to the formal communities delineated here, the community of retired SOF personnel, particularly retired SOF officers and retired SOF operators, form a close-knit and involved community interacting frequently with formal SOF organizations (recall Admiral McRaven's interest in surveying retired SOF senior leaders at the conference held specifically to strengthen their engagement with the active SOF community).

As part of a whole of government approach to some military missions, USSOCOM also works closely with other government agencies, including the members of the intelligence community, the Department of State, the Department of Justice, and others. The fifth SOF Truth, discussed above, sees USSOCOM (or is it SOF) firmly embedded in an interagency community. Rhetorically, what part, if any, of that community is part of SOF?

Finally, in tension with this formal organizational structure is the informal community of SOF operators. This includes not only current operators but retired personnel as well.

The SOF community thus operates as a set of intersecting (and sometimes overlapping) authorities, responsibilities and relationships. Any given individual sits at the nexus of several formal organizations (such as his military service and USSOCOM) and informal communities (all SOF operators, all those in his same MOS), each of which, in turn, is intersected in the same way. The ‘SOF community’ is not a clear line and block chart—and efforts to impact or change behavior and the attitudes and values which drive it must be cognizant of its multiple dimensions. The Commander of USSOCOM, for example, only has direct authority over some—although his personnel may be influenced by many.

Figure 10 illustrates the complexity of the special operations community. The line and block chart shows formal organizations while the irregular background shape includes those that are perhaps at the core of the SOF community. However, note that while the background shape includes (for example) the SEALs [Naval Special Warfare Command (NSWC)], it does not include the Navy—yet the Navy sets many of the relevant policies and procedures for the SEALs. Not shown on this chart are the distinctions within each organization by rank and by OS, and the difference in value sets between, for example, officers and enlisted.

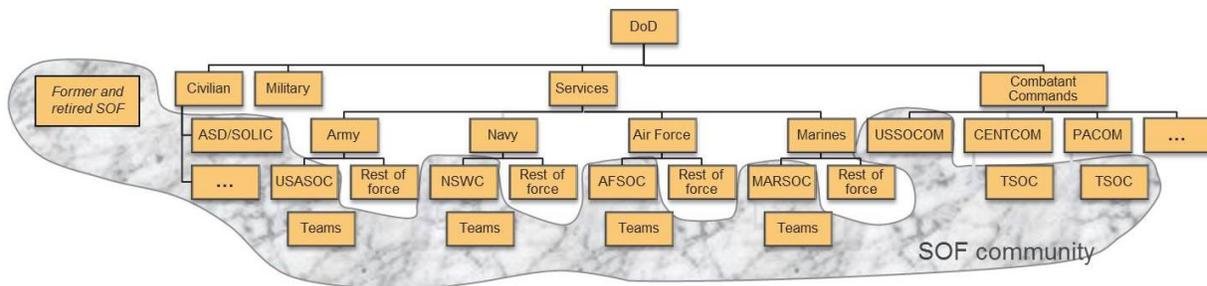


Figure 10: Special operations organizations and the SOF community^u

This complicated personnel and authority structure means that the service personnel, the SOF operators, the members of the elite teams with which this study is concerned, operate at the nexus of several formal and informal communities. The values that drive their day-to-day behavior are most strongly communicated by their operational units—the small teams where membership has historically been defined by sex, operating as a proxy for gender.

^u Although not shown because it would be massive, this figure is conceptually intended to include all organizations associated with special operations and the SOF community such as all of the TSOCs and SMUs. The blocks with the ellipses are intended to reflect other units. The purpose of the chart and section is to reflect the concept of the complexities of trying to define the SOF community.

So the concept of culture is a very messy one, beginning with the very definition of the organization which espouses or holds it. A group can be formal or informal—or both, as is the case with the SOF community. There can be cohorts within the group which hold values more or less strongly, as is the case with (for example), an SFODA and the Army. Even within single formal organizations, values and attitudes are not held homogeneously across the group. Within USSOCOM, attitudes about special operations personnel and organizations will vary between leadership and staff, military services, those with special operations experience and those without, and by other criteria.

Enveloping all the formal organizations of the military and the government is American society. As a formal institution embedded in that society, the military re-presents the value climate of the general society. The military is a highly formalized organization. Social relationships are codified through rank, and behaviors and the presentation of self – down to clothes and hairstyle—are codified in rules and regulations. As formal social structures can be very slow to change, it is not surprising to find that the military has lagged general American society in value changes in areas such as race and gender.

A group's culture is its frame of reference, its understanding of what in its environment is important to it, and how it should engage with those elements. It then sees that meaning in artifacts, and structures and organizes behavior according to those meanings. This study uses Schein's model of organizational culture which considers artifacts (which includes behaviors), espoused values (such as policy statements, formal statements of organizational values, and procedures) and basic assumptions. However, it is important to remember that while this disaggregation is useful for analytic purposes, it is dangerous for operational and implementation purposes to separate 'levels' too sharply when speaking of the cultural dimension. Behavior (and artifacts) is only interesting as representations of shared assumptions. Espoused values may or may not have a strong relationship with both (or either) behavior or basic assumptions. And since an organization's culture is the product of the interaction of the individuals who compose it at any given time, that culture is constantly changing.

8.3 Changing organizational culture

Organizational culture change is a term used for an integrated, deliberate organizational change program. The target is the organization's values and attitudes. However, directly addressing the attitudes and values is the most difficult path to take through a formal organizational change system, largely because of the intangible nature of the target.^v Therefore,

^v It is interesting to note that almost all the literature in organizational development (which is the management application of organizational change theory) targets large, private sector organizations. There is some literature looking at entrepreneurial firms, but very little analyzing public sector organizations. For a useful overview of theories of organizational change see Demers, C. (2007). *Organizational change theories: A synthesis*. Sage. For a

related instrumental dimensions include policies and procedures, changes in reward structures, changes in technologies, and the like.

Discussions of organizational culture change are predicated on definitions of the system (the organization) and of the nature of the change, and on assumptions about the relationship between (and the relative strength of) organizational structure and the agency of participants, or the ability of organizational participants to overcome the effects of their environment.

The culture change with which this study is concerned is a change in the historic gendered nature of a set of occupations in military units controlled to some degree by USSOCOM. However, as described earlier, any social organization is a complex, quasi-open system. Change in a complex, quasi-open system is not discrete and it is not linear. As Weick and Quinn put it, “The distinctive quality of continuous change is the idea that small continuous adjustments, created simultaneously across units, can cumulate and create substantial change.”²⁴² Change is always occurring in organizations and often occurs in very small ways which cumulatively can have very large consequences.

At times, an organization may appear to be highly dynamic, at others, rather stable—but it is always evolving. The punctuated equilibrium model of evolution is a useful analogy.²⁴³ Change (natural selection) is always happening, although often with no visible consequences to species. A species may reach a tipping point however due to internal population dynamics or external environmental changes, with significant consequences to the species as a whole. By the same token, an organization may appear relatively stable. However, changes are happening within the organization as new people move in and out, generational values change, new policies and programs are instituted—and changes are happening in the organization’s environment with new laws and requirements, new assigned missions, and the like.

The opening of combat positions to women in the U.S. military is an example of this model of change. Changes did happen within the military itself over time. Women moved out of auxiliary positions into the regular military. Women moved into support positions that engaged them on a battlefield. Although women were officially banned from combat units until January 2013, the performance of females in combat support and other positions in the last two decades has made it clear that women are quite capable of meritorious performance on a battlefield. In 2007, Sergeant Leigh Ann Hester was awarded the Silver Star, a military honor given for “gallantry in action,”²⁴⁴ providing evidence of a bottoms-up change by officially recognizing a case in which a woman did perform on a battlefield.

decomposition of the organizational development field by dimension (e.g. cultural, political, structural) see Burke, W. W. (2010). *Organization change: Theory and practice*. Sage.

At the same time women were engaging in different behaviors in the military, changes were happening in the larger American society. Social mores began to require equal opportunity for women in all walks of life. The kinds of fights in which the United States are engaged is changing from large, discrete conventional wars to the ongoing low-level conflict found in insurgencies, and unconventional conflicts for which special operations is particularly suited. The kinds of technology used on a battlefield changed, making many activities which formerly required significant strength to require other skills instead. All of these and other changes occurred over decades—and culminated in the 2013 policy decision to open combat positions to women.

Golembiewski, Billingsley and Yeager identified three different types of organizational change that are useful to examine.²⁴⁵ The first, which they call ‘alpha,’ uses a comparative measure to assess organizational performance before and then after an intervention. In the case under study here, that would be SOF mission effectiveness before and after the introduction of females to SOF teams. Note that this type of change assumes that everything else in the organization stays constant other than the inclusion of females on teams and that the ‘change event’ is a discrete event. The system is assumed to be a relatively simple system, and there must be base-line data on relevant aspects of unit performance pre-change event. The second type of change, beta, assumes that the measurement dimension may change after the organizational intervention. To continue with the SOF example, the ways in which a team accomplishes its mission may change after the introduction of females. This type of change can characterize a ‘learning organization,’ where change is not an event but a process. As examples, recall the female firefighters in the discussion of tokens in Chapter 6.3 who learned to handle a fire hose in ways other than with brute strength, and the female high-altitude climbers discussed in Chapter 9 in the section on analogous units who overcame the problem of the weight of the gear by never climbing in two-person teams as did men, but only in three-person teams or adopting a different climbing style.

The participation of females on an elite team in an austere, dangerous environment may lead to different ways of addressing tasks, planning missions, or coping with the stress of missions. Finally, ‘gamma’ change reconceptualizes or reframes the domain in question. The addition of females may change the implicit or explicit definition of special operations activities or what it ‘means’ to be a special operator. If the activity is de-gendered through a vocabulary which talks about it as performance to standards rather than as performance to aspects of masculinity, what it means to ‘be a SEAL’ or ‘be a Ranger’ may, in fact, change. And it is here that the strongest challenge to organizational values and attitudes will be found.

In all cases, if the change is to be a true change in values and not simply a change in numbers, the organizational culture needs to be assessed pre- and post. For example, does the success of a female in meeting the standards for selection and assessment constitute ‘women in

SOF'? Or is it her contribution to a successful mission? If the latter, how would that be measured?

Note that this discussion does not argue that the introduction of females or the reframing of the job as performance to standards rather than as 'a job that only men can do' will make special operations easier, less risky or require less physical strength or capabilities. As will be seen in Chapter 9, the addition of females to Everest summiting teams did not make the mountain any lower or the weather any better. It did, however, change the ways in which some of the teams summited. The men working the offshore oil rigs, also described in Chapter 9, did not feel 'de-masculinized' as they learned to incorporate safety procedures into their regular work procedures. What it meant to 'do the work' had been re-defined.

An organization's culture is, almost by definition, resistant to radical or discontinuous change. As an embodiment of 'the way we do things around here' an organization's culture communicates the behaviors and patterns that have allowed the organization to be successful in the past. As a result, organizations run the risk of investing in what *did* work rather than what *will* work. Audia, Lock and Smith call this 'strategic persistence.'²⁴⁶ They point out that "when the environment changes, the success-persistence relationship may prove detrimental."²⁴⁷ Christensen called it the 'innovator's dilemma,' noting that firms put large investments into perfecting that which made them successful and often neglect to scan the environment for market demand discontinuous with their current position.²⁴⁸ Although these analyses primarily address discontinuous change and usually neglect the evolutionary type of change that is continually happening within organizations, they are worth highlighting as they underscore the strong investment organizations make in establishing and maintaining 'the way we do things around here'—the prism or perspective that organizational culture provides, the strong values that underlie behavior.

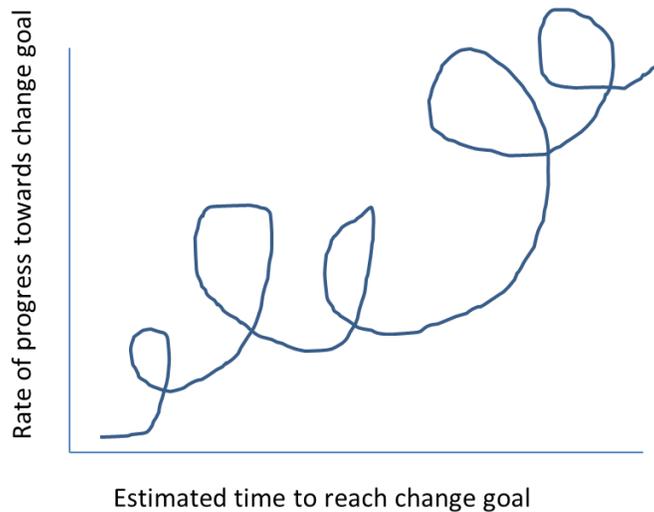
Almost all scholars and practitioners of organizational change agree that without some strong incentive to change, the strong values imbued by an organization's culture will reinforce past behavior. And if a discontinuous change does occur in an organization's environment, it can take a minimum of five and up to as many as ten or more years for internal values (the organization's culture) to change.²⁴⁹ The 2003 investigation into the Air Force Academy sexual assaults revealed a climate inhospitable to women 27 years after the Academy graduated its first mixed-gender class. Racial discrimination is still a concern in many organizations (including the military), half a century after major civil rights legislation made a national statement about a change in values.

So what does it take to effect a change in an organization's culture? Kotter developed eight steps he felt were critical for implementation of fundamental cultural changes in any organization, based on years of empirical work with several large organizations.²⁵⁰ Although

there are other formulations of change processes in the organizational development literature, they generally are not that different from these eight. They are:

- 1). establishing a sense of urgency by relating external environmental realities to real and potential crises and opportunities facing an organization,
- 2). forming a powerful coalition of individuals who embrace the need for change and who can rally others to support the effort;
- 3). creating a vision to accomplish the desired end-result;
- 4). communicating the vision through numerous communication channels;
- 5). empowering others to act on the vision by changing structures, systems, policies, and procedures in ways that will facilitate implementation;
- 6). planning for and creating short-term wins by publicizing success, thereby building momentum for continued change; and,
- 7). consolidating improvements and changing other structures, systems, procedures, and policies that aren't consistent with the vision; and
- 8). institutionalizing the new approaches by publicizing the connection between the change effort and organizational success.²⁵¹

Note that these steps are not necessarily linear nor, as mentioned earlier in the discussion of complex systems, are they necessarily unidirectional. Organizations change in non-linear fashions, moving forward, backwards and sideward along almost all dimensions. As change occurs in one dimension, it stimulates change in another, which may stimulate a reactionary response in the first. Because of the complex nature of an organization, unintended consequences of an action might move the change effort back instead of forward. Figure 11 provides a notional illustration of the movement of an effort. This inconsistent forward motion, combined with the duration necessary to change deep-seated values, requires a firm, long-term commitment on the part of senior leadership to the change effort. This can be difficult in a military environment where personnel are rotated into and out of positions for two- to four-year terms.



Source: Burke Fig.2.1²⁵²

Figure 11: Depiction of the nonlinear nature of organization change

For the particular organizational culture change the special operations community now faces, Kotter's first two steps have been accomplished. These are the sense of urgency and the formation of a coalition of powerful individuals invested in the change effort. The sense of urgency has been established by the order from the SecDef to integrate females into combat and combat enabler OS. A coalition of senior leadership has formed to address the question of the appropriateness of females on special operations teams.

Early in the change process, the organization must create and communicate a compelling vision. This study and its sister studies that are taking place in and commissioned by USSOCOM are early steps in the creation of a vision. If there are no defined and supported objections submitted to the SecDef and USSOCOM proceeds with the integration of women into all SOF OS, a clear and persuasive description of a force that is benefiting from and can provide benefit to the females on the teams will need to be developed. This description can take visual form in iconography (posters, graphics, uniforms), behavioral form in the jobs and tasks the females who qualify are allowed to perform, and formal form in the policies and procedures that describe the desired behavior from all special operations personnel, establish rewards for those who act according to those behaviors, and penalize those who do not. The use of language such as 'special operator' and the discouragement of the term 'female special operator' will be important, as will the development of stories of females who performed against mission in laudatory ways—as soon as those stories are available to circulate. The identification of opinion leaders at the enlisted level and early engagement with them will be critical.

The default vision in this case is a change legislated by external forces, forced upon the current population of operators. And since so much of the identity of a special operator is tied up with physical capability, the recognized poorer physical performance of the average female compared to the average male can quickly lead to assumptions that the females in a special operations selection program are not as physically capable as their male counterparts. This, in turn, could lead to a perception by other operators of the females in the OS as ‘tokens’—individuals who are present because of their membership in a group (female), not because of their capabilities or abilities to contribute. This underscores the importance not only of the existence of gender-neutral physical and other standards, but of the connection to mission of those standards.

Changing an organization’s culture means understanding what it is that needs to be changed. This chapter pointed out the importance of defining the target system, of identifying ‘SOF.’ Is it USSOCOM? The components? What role do retired and former SOF operators have, if any? How about the military services that own the components? It also emphasized that the process is non-linear and ongoing (it is truly a process, and not an event). It will be difficult to ‘manage,’ and could take as long as a decade (or perhaps longer) to succeed. However, there are ways in which leadership, from the team level to the command, can guide the process and enhance its possibilities for success.

The final conclusion contains two cautions. First, given the distributed nature of gender-related behaviors, it is likely that there are male special operators that already bring ‘feminine-associated’ skills to the team and these behaviors are ones that already contribute to some mission success. Second, again given the distributional nature of these behaviors, not all women will exhibit them, and some of the women may exhibit strongly masculine behaviors. It would be highly counterproductive both for team morale and for team performance to designate certain types of missions as ‘women’s missions.’ As with all activities, special operations teams must find the best team member for the particular task. That said, it is possible that mixed-sex teams will add new depth to certain gender-associated behaviors that could contribute effectively to all SOF missions.

The empowerment of members of the organization to support the new vision through the provision of policies, procedures and other organizational mechanisms is important. Leadership down through the ranks must be willing to support the incorporation of females but discourage the development of the ‘female special operator’ in favor of a cadre of ‘special operators.’ Leadership must appropriately reward inclusionary behaviors and punish exclusionary behaviors such as sexual harassment and gender discrimination. Note that gender discrimination could be negative – females assigned to ‘feminine’ jobs such as negotiation or advising, and away from masculine activities such as direct action—or positive—females given special attention simply because they are female and not because of performance.

9. ANALOGOUS UNITS

This study reviewed research and lessons from non-military and military organizations on how they have integrated, tried to integrate, or are integrating women into their combat, combat-like, or analogous elite team formations. As such, the parallel question (to the research question) became: *What research has been conducted and what lessons can we learn from others and apply to SOF that have tried to form, formed, or are forming, mixed-gender elite teams?* The Research Team looked at teams in occupations whose mission or performance space has aspects analogous to those found on SOF missions. The following attributes of SOF missions were selected to construct the analogy, noting that not all organizations will have missions that will have all the attributes on the list:

- Conducted in an austere environment
- Require isolation of team members from family or own culture for long periods of time
- Highly dangerous
- Involve a mission perceived as important by team members and others
- Have a clear mission space, but an unclear task definition
- Involve immersion in/contact with foreign community
- Require highly interdependent teams.
- Have missions similar to SOF (e.g., hostage rescue, direct action, FID)

The rationale for selection of each of these attributes is as follows. Bad weather, difficult terrain and lack of resources combine to create an austere environment which strain a team's ability to operate and so affect its performance. Isolation from communities which normally provide emotional support and resource networks, such as family, friends, or institutional support structures, can force a team to turn inwards for such support. The (non)availability of such support from team members can impact cohesion and morale. The dangers a team faces causes team members to be stressed and to operate under pressure. These stressors can significantly impact team dynamics and so team performance. As shall be shown later, the importance of the mission as perceived by the team members can impact team cohesion and morale. Unclear task definition and highly interdependent teams require excellent communication and engagement among team members shown to contribute to task cohesion. Immersion in foreign communities for long periods of time often will throw team members back upon each other for certain kinds of emotional and social support and may stimulate or exacerbate social cohesion. Finally, "missions similar to SOF" reflects a similarity among, and alignment with, SOF mission objectives (from the primary research question).

This chapter is divided into two parts. The first part looked at studies in the literature which specifically focused on the performance of mixed-gender elite teams operating in austere environments, and the impact of sex and gender on high-level performance. The second part reports on interviews conducted by the Research Team with participants on mixed-gender elite

teams in a variety of organizations. During the Initial Review, it became obvious that very few militaries and law enforcement agencies have integrated women into their mixed-gender elite teams, and for those that have, very little information is available to the public; hence, the Research Team used interviews to obtain that information.

9.1 From the research literature

There are research results available from organizations which have specifically addressed the question of the impact of mixed gender team composition on the performance of elite teams operating in austere environments. The National Aeronautics and Space Administration (NASA) performed extensive research over the years on team composition, looking for the optimal conformation for long-duration space flight (for trips to Mars, for example). NASA participates in research conducted at a research station on Devon Island in northern Canada where the Mars Society, a private non-profit organization, has created a simulated habitat and where researchers can conduct fairly controlled experiments. NASA's researchers also studied polar expeditions and parties overwintering in research stations, primarily in the Antarctic. In addition to using NASA's studies, this study looked at other material on polar expeditions (both Arctic and Antarctic) and overwintering parties. Additionally, the author has corresponded with one of the principal researchers on the NASA research projects.

There is some research on gender and performance available on high-altitude mountaineering teams and Himalayan trekking teams. All-female and mixed sex teams are relatively new in Himalayan mountaineering, and have received some special attention. There is a small body of literature on the performance of females on offshore oil rigs which treats the rigs as a strongly masculine (highly gendered) occupation and explores women's performance in these environments. Finally, as part of the more general literature on differences in performances on teams between males and females, studies of the performance of civilians under fire in Haifa, Israel were included.

The studies focusing on astronauts, polar expeditions and Himalayan mountaineering and trekking all required individuals to go through either formal or informal physical, mental, or other type of selection processes before qualifying for the team. Further narrowing the pool and strengthening the analogy with special operations teams, the polar and Himalayan expeditions required individuals demonstrate a level of physical fitness and certain psychological orientations outside of population norms. Thus studies of team dynamics that address gender behavior typical of the general population may not be applicable to those analog teams and to teams of special operators. It was considerations such as these that drove us to look at these particular occupations.

The cross-walk between the identified relevant attributes of SOF missions and the performance space of the literature reviewed is shown in Table 2.

Table 2: Operational attributes of SOF missions and literature reviewed

<i>SOF operational characteristics</i>	NASA–long-duration space flight	NASA research station	Polar expeditions	Himalayan mountaineering & trekking	Offshore oil rigs
Austere environment	Strong analogy	Strong analogy	Strong analogy	Strong analogy	Strong analogy
Isolation from family, own culture for long periods	Strong analogy	Weak analogy	Weak analogy	Weak analogy	Weak analogy
Highly dangerous	Strong analogy	Strong analogy	Strong analogy	Strong analogy	Strong analogy
Important mission	Strong analogy	Strong analogy	Strong analogy	Strong analogy	Weak analogy
Clear mission space, unclear task definition	Strong analogy	Strong analogy	Strong analogy	Weak analogy	No analogy
Immersion in/contact with foreign community	No analogy	No analogy	No analogy	Strong analogy	No analogy
Highly interdependent teams	Strong analogy	Strong analogy	Strong analogy	Strong analogy	Weak analogy
Missions Similar to SOF	No analogy	No analogy	No analogy	No analogy	No analogy

Strong analogy
 Weak analogy
 No analogy

NASA is the most interesting analog here for several reasons. Long-duration space flight is strongly analogous to the environments required by SOF missions in almost all dimensions. Although the danger is not from another human being, the threat of an outer space environment to an unprotected human is indisputable. The astronaut corps began as a gendered occupation, and is now completely open to women. And because certain NASA missions require long-duration space flight for groups of individuals, team composition has been of long concern to and formally studied by the agency. Finally, teams on long-duration space flight cannot be ‘rescued’ or exfiltrated, so positive team dynamics become an important concern.

NASA did not begin to actively recruit women for the astronaut corps until 1976, although astronaut recruitment began for the Mercury program in 1959 when the agency was created. NASA opened the program to women largely because of intense Congressional and media scrutiny of its almost exclusively white, male professional workforce.²⁵³ The first women were not selected for the astronaut corps until 1978. Although NASA claimed that it did not deliberately exclude women, early requirements for astronauts included technical and/or engineering knowledge or degrees and hundreds of hours of flight time, many of which had to be

in military high performance jets. Since these fighter pilot positions in both the Navy and the Air Force were closed to women as they were combat positions, women could not get the requisite experience—although the requirement was for flight hours, not combat experience. Ergo, women could not become astronauts. John Glenn, the first man to orbit the earth, said in Congressional testimony on the absence of women in the astronaut corps,

I think this gets back to the way our social order is organized really. It is just a fact. The men go off and fight the wars and fly the airplanes and come back and help design and build and test them. The fact that women are not in this field is a fact of our social order. It may be undesirable.²⁵⁴

A recent NASA publication on the psychology of space exploration noted that “beyond the size of the crew, the mixture of cultural and ethnic backgrounds, and the blend of professional expertise, the most salient crew composition variable is gender.”²⁵⁵ The same publication goes on to note that, “In the general team literature, for example, findings suggest that men and women do work in slightly different ways that may influence team performance such as leadership styles and reactions to stress. Research also suggests that the unique contributions from each gender often improve team performance in settings such as...extreme environments, thereby supporting the use of mixed-gender teams.”²⁵⁶

Several studies were conducted by NASA in the 2000’s to identify just what these differences between men and women were, and if and how they might contribute to team performance. For many of these studies, the researchers reviewed literature on polar expeditions and Antarctic overwintering groups. In addition, in 2007, NASA was one of several sponsors of a four-month crew test at the Flashline Mars Arctic Research Station (FMARS). FMARS is a “Mars exploration analog research facility”²⁵⁷ established in 2000 by the Mars Society, a private non-profit organization, on Devon Island in northern Canada. The four-month test was the longest personnel had ever spent at the station, and provided an opportunity for formal research on stress and coping. The research will be continued in an upcoming field session.²⁵⁸

FMARS research

Reports of the research conducted during the FMARS 2007 season noted that “in past studies, task coping (problem oriented) styles have been found to positively impact adaptation and health while emotional oriented coping negatively impacts adaptation and health.”²⁵⁹ Cautioning that the small sample sizes at the FMARS site preclude widespread generalization of any results, the FMARS study found that “males persistently relied upon avoidance approaches with social emotional coping generally second in usage...[while] females used avoidance coping the least across all time points with a predominant preference for task coping with social emotional coping a close second.”²⁶⁰ In other words, males were more likely to show emotional arousal when faced with interpersonal conflict and personal stress, but reluctant to confront or address the issue. Females would be more oriented towards ‘fixing’ the social problem, usually

through social engagement, and showed emotional arousal when their efforts to fix the problem failed.

The same research showed that males also showed “a greater willingness to supplant mission schedules with personal preferences” while “women reflected a more pragmatic framing of the mission as a challenge to complete.”²⁶¹ This tendency shows up in mountaineering and polar expedition, usually attributed to a competitiveness found in males but not found in females. Males will be likely to push for individual achievement (to push through pre-established turnaround times in order to summit on an Everest expedition for example) while females will be more concerned with the safety of the expedition as a whole.

The FMARS research project identified noticeable differences between the coping strategies of males and females, with results caveated by the small sample size. The report concludes that “the crew strongly endorsed the inclusion of both males and females on the team...the presence of females normalizes social functioning in groups, allowing males to disclose more easily. This would be a beneficial counter to avoidance coping styles which appear frequently in males,”²⁶² negating the delay in problem resolution which can allow issues to fester and grow.

Polar expeditions and Antarctic overwintering teams

Several papers have looked at the literature on psychosocial adaptation in isolated and confined extreme (ICE) environments, focusing on polar expeditions and simulated and actual space crews.²⁶³ In perhaps one of the most complete, Sandal, Leon and Polinkas (2006) note that

studies in ICE environments have identified a number of factors that impact the efficiency and quality of interpersonal relationships, including crew structure and cohesion, leadership style, gender and cultural background of crew members, and intergroup relationships.²⁶⁴

This supports the complexity illustrated in Figure 1 where it was argued that gender is only one of many factors influencing an individual’s contribution to team performance and so that team’s performance against its mission.

That said, several of the studies of the polar and over-wintering expeditions did address gender. Rosnet et al. found that the presence of women would reduce rude behavior on the part of men, but would add to stress by stimulating the development of rivalry and sexual harassment.²⁶⁵ Several of the studies showed that the members of all-male expedition teams exhibit significant competitiveness and do not share personal concerns, while all-female teams and the women in mixed-gender groups show a much more cooperative orientation and exhibit concern about the welfare of their teammates.²⁶⁶ Studies of all-male dogsled teams found that “intellectualization, repression and denial” were common coping strategies,²⁶⁷ in contrast to the

sensitivity to emotional concerns Kahn and Leon found in their study of an all-women Antarctic expedition team.²⁶⁸

Kahn and Leon do heavily caveat their findings on the all-woman Antarctic expedition team, noting that it is a sample of one, and the findings may be peculiar to this particular group. However, Leon did conduct numerous other studies evaluating the role of gender in polar and Antarctic expedition teams with an eye to suitable team composition for space travel. The following statement gives a concise summary of this body of research:²⁶⁹

Studies of all-male expedition teams have shown patterns of strong competitiveness and little sharing of personal concerns among members. In mixed gender groups, women sometimes assumed the role of peacemaker, reducing competition and tension among the men while not becoming directly involved in the differences of opinion. Women in mixed gender as well as all-female groups exhibited considerable sensitivity to and concern about others' interpersonal problems. They were more likely to report that the most significant stressors experienced involved concerns about the welfare of other team members. This stress is compounded in mixed-gender groups; while men confided problems and concerns to women in the group, there was not a reciprocal expectation of or encouragement for women to share their concerns with their male teammates. Men were more likely to report task-related problems as the most significant stressor experienced; sharing of feelings with others as a way of dealing with stress was rarely reported. All-female teams report a much stronger cooperative orientation and supportive relationships with each other, and a greater tendency for mutual decision making.²⁷⁰

Finally, studies reported the importance of assigning a role to females that marks them as full members of the team (assuming that females are a minority of team members), avoiding the stigmatism of tokenism²⁷¹ or second class status.²⁷²

Mountaineering and trekking

Himalayan or high-altitude mountaineering can be considered a reasonable analog to SOF mission-directed activity for the purpose of this study. High-altitude mountaineering is conducted in an austere environment, and is highly dangerous. It is considered by many to be the most dangerous sport in the world. One analysis of an authoritative body of statistics on Mount Everest summit attempts looked at 20,041 individuals who intended to summit, spread across 2,756 non-commercial expeditions of 3 persons or more from 1950-2010. Of that group, 24 percent of the expeditions experienced at least one climber injury or death, and 4.7 percent of the mountaineers were injured or killed while climbing.²⁷³ (Note that this does not include, for example, the 15 deaths of the disastrous 1996 commercial season chronicled by Jon Krakauer.²⁷⁴) Of those who attempted, only 26 percent of the climbers successfully reached the summit, with an average of 18 percent of the climbers in any given expedition doing so.²⁷⁵

Although the definition of the importance of an Everest summit attempt differs from that of SOF mission, the national attention paid to climbing teams and their summiting attempts does provide an external motivator for climbing teams on the major peaks. The use of Sherpas as porters and for other support functions, and the need to obtain permits from sometimes hostile governments can immerse all members of Himalayan climbing teams in foreign communities.²⁷⁶ Teams are highly interdependent for safety and logistical reasons, although final summit pushes (the push for full mission success) are often taken by individuals. High-altitude mountaineering used to require isolation of team members from their families and home communities, but the advent of satellite and electronic communication has mitigated this separation somewhat. In short, high-altitude mountaineering requires superb physical conditioning, significant mental fortitude, and a high appetite for risk.

Research looking at gender differences (the behavioral differences between men and women) in high-altitude mountaineers is scarce. A study of an all-woman Himalayan trekking team focused on group dynamics but did not control for gender.²⁷⁷ Personality data on the first all-women team to climb Annapurna, perhaps the closest this study found to research on gendered behavior, showed similarities between women's scores and the average responses of a group of exceptional male climbers.²⁷⁸ There is a body of research on *sex* differences, looking at the differences in physiological performance of males and females at high altitudes. While some of these sex-based studies do look at the psychosocial consequences of the impacts of performance at high altitudes, the focus is on the physiological impacts.²⁷⁹

High-altitude mountaineering has long been considered a gendered sport.²⁸⁰ When summiting, mountaineers will claim to be “the first American on the summit.” Consistent with gendered occupations, the assumption is that this declaration means that the climber was a male. Supporting this assumption, almost all statements about female climbing achievements are marked as such: “the first American woman on the summit.”

Almost all of the literature on female climbing—much of which is biographical or anecdotal—focuses on women's struggles to break the informal but strongly felt gender exclusion of the sport. High-altitude climbing did not see much female participation until the 1970's, although there were occasional expeditions which included women.²⁸¹ (The British Alpine Club did not admit women until 1974.²⁸²) A rejection letter written in 1969 to American climber Arlene Blum, denying her request to join a mountaineering expedition in Afghanistan, included the following which captures the gendered nature of the pre-1970's sport:

One woman and nine men would seem to me to be unpleasant high on the open ice, not only in excretory situations but in the easy masculine companionship which is so vital a part of the joy of an expedition.²⁸³

As a consequence of the exclusionary attitude in the sport in the 1970's as well as a perceived paternalism, many women responded by “taking the position that the only way to

maintain leadership and independence for women in mountaineering was by not climbing with men at all.”²⁸⁴ In 1978, for example, Blum led the first American—and first all-female—ascent of Annapurna, considered by many the most dangerous mountain in the world.²⁸⁵ Ortner’s look at Mount Everest quotes Stacy Allison, the first American woman to reach the summit of Everest. Allison said, “We didn’t avoid climbing with men, but climbing together [with her female climbing partner] meant that we didn’t have to . . . worry that one might question our strength or ability to climb where only men had gone before.”²⁸⁶ This is despite the fact that numerous studies show that men and women perform similarly in hypoxia and cold,²⁸⁷ and studies which have shown that the percentage of female climbers in a group is not associated with the group’s summiting propensity.²⁸⁸

Today women constitute an increasing (although still small) percentage of all Everest climbers—about 10 percent of all those who climbed between 2000 and 2005 (including those whose intention was only to climb to base camp, and including commercial expeditions).²⁸⁹ Molly Loomis’ 2005 interviews with “nearly two dozen” female alpinists showed that women climbing today are ambivalent about the continued gendered nature of the sport.²⁹⁰ Loomis said,

We women may have proven we’re capable, but many of those I contacted argue that our capability is still struggling for recognition. Many women seek all-women’s expeditions to remind themselves and others of the female’s capacity for climbing hard, without the shadow of doubt that a man in the team may cast on their abilities, either inadvertently by his own doing or by critical peers.”²⁹¹

She also reports that “Several of the women from Blum’s era (she just turned 60) and earlier whom I contacted viewed “manless climbs” as a thing of the past—no longer a necessity, since women have proven they are capable of climbing at the same level as men.”²⁹² Ultimately, Loomis concludes that

The bottom line, as [female climbers] Wirtz, McNeill, and many others agreed, is that the ideal composition of a team comes down to what works best for the individual. Beth Rodden, . . .told me, ‘Women can achieve their potential in any atmosphere depending on how hard they push themselves with their partner. If the individual believes that she can only be pushed with other women, then there is the answer. Most of the time I climb better with men because they are stronger and therefore push me to aim higher.’ ”²⁹³

Loomis went on to ask the women climbers why there were such a small number of female mountaineers. Their replies identified “heavy loads, lack of exposure to successful role models, acceptance of risk, and motherhood.”²⁹⁴ However, Loomis’ respondents noted that the factors cited (the need to carry heavy loads, the absence of role models, levels of risk aversion, and motherhood) are not necessarily showstoppers. “Climbing in teams of three to spread out the loads or . . .adopting the ‘fast-and-light’ approach”²⁹⁵ can address the physical differences between males and females. As Melissa Arnot, the only woman to summit Mount Everest five

times, put it, “Being a big, strong, tall dude gives you zero advantage compared to a small, petite woman.”²⁹⁶ Women thus redefined the way in which the physical requirements of the sport could be met. The continued and publicized successes of women in mountaineering are developing a cadre of role models. Motherhood is a personal choice which female mountaineers have addressed in different ways— not having children at all, having children and developing shared caregiving patterns with a partner, or having children and giving up the sport.

Risk aversion, however, is an interesting factor, particularly when combined with the competitiveness that Ortner and others saw as the most consistent element of the masculine presence on the mountain.²⁹⁷ Research on the general population has shown that women tend to be more risk averse than men – but the findings are highly caveated. As Eckel and Grossman’s review article tells us,

The findings from field studies conclude that women are more risk averse than men. The findings of laboratory experiments are, however, somewhat less conclusive. While the preponderance of laboratory evidence is consistent with field evidence, there is enough counter-evidence to warrant caution. For example, both field and lab studies typically fail to control for knowledge, wealth, marital status and other demographic factors that might bias measures of male/female differences in risky choices.”²⁹⁸

Risk attitude or risk aversion thus may be highly time, space, and person-specific.²⁹⁹ As with other attitudes and propensities normally associated with gender, a particular woman at a particular time and place may be more willing to take risks than a man standing next to her.

In short, women’s mountaineering achievements demonstrate that there are women – albeit fewer than the number of men – who are physically able to manage the task, have the mental fortitude necessary, and will take the personal and family risks associated with high-altitude mountaineering and succeed at what had historically been considered a male-only sport. *How* they accomplish that and if those methods are different than those of their male counterparts remain to be determined.

Israeli citizens under fire

This section closes with a very brief look at the coping patters of Israelis when they were under military attack (the Persian Gulf War of 1991, specifically the missile attacks by Iraq on Haifa and Tel-Aviv), and under daily routine stressors.³⁰⁰ It is included because it directly addresses gender differences in coping with a military attack, sample sizes were large enough to generate statistical results, and the study compared the coping behavior during the attack with a baseline of ‘normalcy’ to identify the influence of the stressor on coping mechanisms.

The study found that during the stressful situation, “women were more likely than men to report on active, problem-focused coping, while men tended towards relatively higher emotion-

focused coping,” although the women also reported higher anxiety during this time.³⁰¹ The authors did note that women were responsible during this time for the safety of the family (arranging for sealed rooms, buying food, etc.) while men, unless they were actively engaged in the military, were removed from their normal roles and had fewer responsibilities during the missile events which could have accounted for the differences in coping strategies.³⁰²

9.2 Interviews with members of existing teams

Research from secondary sources was supplemented with interviews with members of teams in organizations which had made a transition from single-gender (male) teams to mixed-gender teams. As with the secondary research, interview targets were from organizations which operated in environments analogous to SOF. The targeted organizations were the Canadian Special Operations Forces (CANSOF), Federal Bureau of Investigation (FBI) Special Weapons and Tactics (SWAT) teams and hostage rescue teams (HRTs), and Smokejumpers. Interviews with the Smokejumpers and Canadian Special Operations Regiment (CSOR) were conducted in person during the fall of 2013. FBI interviews were conducted in the fall of 2013 and early 2014 and were a combination of face-to-face and telephonic. The crosswalk between attributes of the SOF operating environment and the environments in which these teams operate is shown in Table 3.

Table 3: Operational attributes of SOF missions and organizations to which interview respondents belong

<i>SOF operational characteristics</i>	Canadian SOF	FBI HRT/ SWAT	Smoke-jumpers
Austere environment	Strong analogy	Weak analogy	Strong analogy
Isolation from family, own culture for long periods	Strong analogy	Weak analogy	Strong analogy
Highly dangerous	Strong analogy	Strong analogy	Strong analogy
Important mission	Strong analogy	Strong analogy	Strong analogy
Clear mission space, unclear task definition	Strong analogy	Strong analogy	Strong analogy
Immersion in/contact with foreign community	Strong analogy	No analogy	No analogy
Highly interdependent teams	Strong analogy	Strong analogy	Strong analogy
Missions Similar to SOF	Strong analogy	Strong analogy	Weak analogy

Strong analogy
 Weak analogy
 No analogy

Canadian Special Operations Forces (CANSOF)

The following information was derived from a literature review and interviews with three members of the Canadian Special Operations Regiment (CSOR) holding leadership positions.

The 1970 Royal Commission on the Status of Women and the Canadian Human Rights Act in 1978 provided the catalyst for opening the Canadian Military Colleges and the two-thirds of the all the Military Occupational Careers (MOC) to women in the CF. In 1987 the CF initiated the Combat Related Employment of Women (CREW) trials to investigate the impact of opening combat occupations—infantry, artillery, armored, signals, and field engineer units—to women. The trials were scheduled for three years, the first year designed to integrate women into the units and the second and third years to evaluate the impact by comparing the mixed-gender units to all-male units. However, CREW was ended in 1989 by a Human Rights Tribunal order before the units could be evaluated. The Tribunal had received four complaints against the CF policies on women, three from women who claimed they were denied the opportunity to train or occupy closed positions because of their gender, and one by a male. He claimed that, as a result of those closed positions, he was being placed at greater risk than women. It's interesting to note that during the two years of the trial, only 1 of 60 women recruited for the infantry had successfully completed the course. The lack of volunteers and the completion rate caused some to question the cost of opening those MOCs.³⁰³ Today, women comprise 2.4 percent of personnel in combat arms. Within the infantry, one woman has attained the rank of major and, according to her peers, is highly competitive for infantry battalion command.

In 1989, the Canadian Human Rights Tribunal directed all OS and positions in the Canadian Forces (CF) be open to women (with the exception of submarines, which opened in 2001). As of January 2013, there were approximately 15,300 women in the CF (active and reserve) representing about 14.8 percent of the total force.³⁰⁴ Women have been represented in all the OS including the infantry, as an operator in the Canadian Special Operations Regiment (CSOR) and a former coxswain in Joint Task Force 2 (JTF-2). No women occupy positions as assault operators in JTF-2; however, that is due to a failure to qualify, not closure of the position.³⁰⁵

Although CANSOF existed in some form since the colonial days, its modernized form was created in 1986 with the development of a hostage rescue capability in the Royal Canadian Mounted Police. That capability was transferred to the military in 1992 with the creation of JTF-2, CANSOF's Tier 1 SOF organization. Lessons learned from the 2001-2002 mission in Afghanistan identified the need for a Tier 2 SOF capability. In 2006, a command element, Canadian Special Operations Forces Command (CANSOFCOM), was created as was JTF-2, the Canadian Special Operations Regiment (a Tier 2 unit), the 427th Special Operations Aviation

Squadron (SOAS), and the Joint Nuclear, Biological Defense Company (JNBCD).³⁰⁶ The two units of interest to this study are JTF-2 and the CSOR.

JTF-2's primary mission is counterterrorism; "however, the unit is employed on other high value tasks such as special reconnaissance, DA, and Defense, Diplomacy and Military Assistance (DDMA)."³⁰⁷ Although no women have qualified as Special Operations Assaulters, one woman (out five) who completed the assessment and selection process but was not selected, later qualified as a Category B, Special Operations Support Personnel, specifically as a coxswain.³⁰⁸

The CSOR is responsible for conducting DA, SR and DDMA. In 2006 the first enlisted female completed assessment, selection and qualification course and became a badged operator. According to a member who attended the course with her and later, knew her as a member of the team, she was as physically fit and as qualified as the men.

The female operator later deployed to Afghanistan as a team member. She primarily performed interdiction missions and on one of the missions she was a vehicle commander and performed to standard. According to one of the interviewees, it was definitely advantageous having a woman on the team for a quick reaction force or "even in a direct action role where people had to be searching buildings." In addition to her ability to engage with the indigenous female population (a role culturally precluded for male operators), assigned female operators were familiar with SOF team tactics, techniques and procedures (TTP) and standard operating procedures (SOP) and did not have to go through additional training in order to accompany the SOF team. This was in contrast to female enablers, such as members of 'cultural teams' who did not know the SOF TTPs and SOPs. (It is worth noting that local cultural restrictions work two ways. The female operator did not accompany the team on one Foreign Internal Defence operation as the team leader felt that an all-male team was more appropriate as the mission required instructing at the company and sub-unit level.

The interviewees also offered some general comments about experiences with women in SOF, primarily their experience with enablers. They reported that the primary difficulties were other men who treated the women differently and so affected the team dynamics. Women who apply to be an operator can be desirable candidates – they are focused, Type A personalities and are normally in very good physical condition. Respondents pointed out that developing gender-integrated teams is as much about males as it is about females. But they all agreed that the bottom line is professional competence and output.

The interviews also covered other topics. Respondents did believe that there never would be a 'critical mass' of females in CANSOF, making acceptance that much harder. They spoke of the importance of gender-neutral standards, concerns about standards violations and double standards, and pointed out that quotas would mean disaster. Fraternalization and sexual

harassment were discussed. Privacy was on the table as the mission allowed, but as with quotas and double standards – no special privileges. Respondents were clear that the women would not want it that way.

Federal Bureau of Investigation (FBI)

Seven people were interviewed from the FBI. They included two psychologists, two female agents (both of whom were SWAT team members, one of which was a SWAT team leader), and three trainers with deep experience as team leaders.

The FBI is an intelligence-driven and a threat-focused national security organization with intelligence and law enforcement responsibilities.³⁰⁹ The FBI organizations that appear to be most relevant to the SOFMET research are the:

- Counterterrorism Division
- Weapons of Mass Destruction Directorate
- Critical Incident Response Groups
- Human Resources Division
- Training Division³¹⁰

Of those organizations, the Critical Incident Response Group, or CIRG incorporates tactical operations which include HRTs and SWAT teams. HRTs and SWAT teams seem to be the most relevant for further discussion because of their similarities to the SOF core activity of direct action (see Table 3). Other activities that have application are special reconnaissance and counterterrorism.³¹¹ According to some of the interviewees (some of whom were prior military SOF) the conditions experienced by an HRT or a SWAT team are not as severe as those experienced by SOF teams. For example, the teams are not deployed for long periods of time in austere locations.

The FBI started accepting female applicants for special agent positions on 12 May 1972.³¹² As of 12 May 1972, all positions in the FBI were open to women. On 17 July 1972, two women were sworn in as FBI special agents.³¹³ Today the FBI employs 36,074 people of which 15,649, or 43.3 percent are women. Special agents comprise 13,913 of FBI employees and 2,707, or 19.5 percent are women.³¹⁴

Women are permitted to apply for both HRTs and SWAT teams. Selection standards for these teams are gender-neutral, and have been validated to ensure that they can reflect mission requirements and can be audited to mission-essential tasks. As of this report, two women have attempted HRT assessment and selection; one was eliminated early in the process for medical reasons and the other did not pass the board selection at the completion of the course. As one

respondent said, “It is an intense two weeks that may have 40 candidates and end up with ten. But they can board select one, ten or none—it’s not a quota system.”

Privacy for the FBI SWAT teams was not an issue and mission dependent. Respondents gave examples during the interview. A common example: if they were required to quickly change to meet a mission and the only facility available was an open team room, they did it. Another example: The team (the men and a woman) adapted to a situation where they were kept in a van for hours (were not allowed to leave the van) and they had to relieve themselves. They provided as much privacy and courtesy that a van allowed and did it. “It’s not a big deal if you don’t make it one,” said one of the respondents.

Sexual harassment has not been a problem. There were a couple of potential situations, but those situations were quickly preempted by the female SWAT team members. The respondents attributed the quick preemption to the female operator personality: Type A, very direct disposition. Several factors also contributed to such a low rate of potential incidents: The females were there for the mission and not sexual relationships, and the quick preemption sent that same signal (they were there for the mission and not sexual relationships) so the situation never occurred a second time. Additionally, FBI agents and SWAT team members in particular generally have higher education levels, greater breadth and depth of experience, and better judgment (i.e. greater maturity) than one would find in the military in general or even among SOF.

It appears that the FBI has successfully, despite the small numbers, integrated women into their SWAT teams. Although no woman has yet qualified for HRT, if one should the organizational climate seems receptive, assuming her performance is up to standards. Having said that, it is important to note two things. These interviews were conducted 40 years after the teams were opened to women so problems encountered at inception of the policy may not be visible now. And although women are performing successfully on SWAT teams, their numbers are small. There are only 11 females out of 1,220 serving SWAT team members and zero female HRT members. While it may be the physical standards that are the barrier (recognizing that many males fail to pass selection and assessment also), these low numbers do have implications for training, policy, and general organizational culture and climate.

Smokejumpers

Smokejumpers are an elite group of wildland firefighters who parachute into remote areas to fight wildfires. These teams are overseen by the U.S. Forest Service and the Bureau of Land Management (U.S. Department of Agriculture and Department of the Interior respectively). There are seven Forest Service and two Bureau of Land Management Smokejumper bases employing nearly 550 jumpers.³¹⁵ Women make up approximately five percent or less of the total Smokejumper population with the exact number always in flux.

Interviews were conducted with 19 Smokejumpers: 5 women and 14 men. Experience levels of respondents ranged from rookie to more than 30 years. Of the women interviewed, one was a base manager with more than 20 years of experience.

The U.S. Army has a historical connection to the Smokejumpers. The 555th Parachute Infantry Battalion was activated as a result of a recommendation made in December 1942 by the Advisory Committee on Negro Troop Policies, chaired by the Assistant Secretary of War, John J. McCloy. In approving the committee's recommendation for a Black parachute battalion, Chief of Staff General George C. Marshall decided to start with a company, and on 25 February 1943 the 555th Parachute Infantry Company was constituted. The battalion did not serve overseas during World War II. However, in May 1945 it was sent to the west coast of the United States to combat forest fires ignited by Japanese balloons carrying incendiary bombs. Although this potentially serious threat did not materialize, the 555th fought numerous other forest fires. Stationed at Pendleton Field, Oregon, with a detachment in Chico, California, unit members courageously participated in dangerous firefighting missions throughout the Pacific Northwest during the summer and fall of 1945, earning the nickname "Smoke Jumpers."³¹⁶

Smokejumper units were male-only until 1982. After 1982 women were allowed to try out to be Smokejumpers and there have been successful women Smokejumpers since that time. For this study, Smokejumpers also represent living memory of the gender integration process in an elite and highly competitive organization, which operates in remote and austere environments. Although early female Smokejumpers encountered suspicion and some hostility, thirty years later women are "just one of the bros"³¹⁷ – fully integrated into the teams. There are no female Smokejumpers – just Smokejumpers.

Kim Maynard, one of the first women Smokejumpers who started as a firefighter and worked as a smokejumper in Missoula from 1982 to 1984, recalled the atmosphere of anxiety when she and Wendy Kamm arrived for smokejumper training: "[T]hey had a sexual harassment class . . . and they discussed, 'Well, fellas, things are changing. Now when you have to take a pee, you have to go behind the bushes. . . . And you have to watch out for sexual harassment because you could easily get sued. . . .' And people were just scared of us. Nobody would talk to us. . . . They thought, any second, that we were going to sue them."³¹⁸

"I don't think of them that way [as females]," said Wayne a recently retired Smokejumper with over 30 years' experience. "We don't answer every request. Sometimes it's just not safe. But if the decision to send a team is made, they're all Smokejumpers and assignments are made by the jump list. At the beginning of the season we pull names from a hat to determine who's going to be with who. After that, it's just a question of rotation. We don't think 'this fire's too tough' [when making assignments] or anything like that. That's all baloney." This attitude of male Smokejumpers illustrates the degree of organizational change that the Smokejumper community

has undergone. As each interviewee was asked if they had ever experienced “mission failure” due to the team being mixed gender, the answer of every interviewee was specifically “no.”

Interviews conducted with male and female Smokejumpers led to the conclusion that mission success has not been compromised through gender integration. Interviews supported findings noted in previous academic research, such as the potential for “higher level of maturity and responsibility to be exhibited by males in presence of women.” An identified benefit of gender integrated teams was that “different perspectives offer different possibilities and courses of action.”³¹⁹

Summary

The Research Team’s review of the literature on analogous occupations found little formal research on the impact of gender on the performance of elite teams in high-stress, austere environment. What research that did exist was caveated by small sample sizes and the confounding variables found in any social field research. The Research Team’s search for organizations with missions more directly analogous to SOF (e.g. hostage rescue) led to primary data collection through interviews with both male and female members of mixed-gender teams.

A review of the research, combined with anecdotal evidence, case studies, and the interviews shows that mixed-gender teams can perform well in these cases, although sexual harassment can be a problem. Mixed-gender teams seem to use both masculine and feminine coping strategies, engaging with relational issues more than single-gender teams, experiencing less individual competitive behavior and more team-focused behavior. The primary issues women face on mixed-gender teams in high-stress environments seem to originate in the gendered nature of the environment, not in their contribution to the team’s success. This was most visible in the highly gendered sport of high-altitude mountaineering where the women were vocal about their felt need to prove themselves, particularly in the early days of female participation in the sport (in the 1970’s). The sport also provided examples of ways in which females redefined task-based strategies to accommodate their physical limitations yet still summit. (Note: Mount Everest did not get shorter nor the weather better because women were not as strong as men. The climbing challenge remained as difficult as it ever was: some of the strategies women used to overcome it changed.) Some of the interview respondents also suggested that problems become problems only if team members (both male and female) let them. Others commented on the sexual dynamic stimulated by the masculine (gendered) environment, and its influence on team dynamics.

This chapter emphasized that, just as males who are selected as special operators are ‘special’ along many dimensions, so will be the females. In fact, since the selection criteria in several of the dimensions, most notably the physical, will pick only females who are far at the tail of a normal distribution, the female special operators will be highly exceptional. The

Research Team tried to account for exceptionalism in this study by looking at research on females who participate in activities that also require extreme physical fitness as well as mental fortitude and focus, but could not find exact analogs. To fill this gap, the Research Team spoke directly with both male and female participants in a few organizations with missions similar to SOF. The interviews showed that although there are recorded instances of negative behaviors directed toward early female participants in some of these organizations, decades after positions were open to women, the Research Team did not find one instance of mission failure attributed to the presence of a female on the team. However, in no case were the percent of females at or even near the structural requirements (15-20 percent) that Kanter identified in her early work on minority populations.

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10. CONCLUSIONS AND RECOMMENDATIONS

There are a number of factors that affect team dynamics such as gender/sex conflation, leadership, working conditions, attitudes of team members towards gender integration, and organizational/culture pressures. However, the existing data does not support the contention that the integration of females (who have met gender-neutral validated standards and qualifications for assignment to a SOF elite team) in and of itself, will adversely impact team dynamics and subsequently impact mission effectiveness. Having said that, the results of the study must be heavily caveated due to the general lack of data on mixed-gender SOF teams, reliance on studies based on mixed-gender combat service and combat service support units and non-military organizations, and small sample sizes. Additionally, it is expected that those women that would have the desire to be part of, and might qualify for SOFMET, would do so in very small numbers.

The limitations on available information, the size of the sample and expected number of women candidates may be, in the opinion of decision-makers, insufficient upon which to base a decision. If that is the case, then the USSOCOM leadership may consider expanding the research methods to allow a more focused effort through tests, a pilot program, or experimentation with control and experimental groups.

Conclusions

In the long term, including females on SOF elite teams is about building mission-capable teams. This research has NOT supported the contention that SOF mixed-gender elite teams cannot effectively accomplish SOF mission objectives (this study's null hypothesis). The review of analogous teams showed mixed-gender teams performing effectively in high-stress, austere environments similar on many dimensions to those U.S. SOF will face. Again the number of mixed-gender teams available for review was very, very small, and there are difficulties isolating gender as an independent variable. Although the research showed the desired future is possible, there are areas to which SOF leadership will need to attend as gender integration goes forward.

Recognizing the differences between sex and gender is critical to successful integration. The establishment of mission-validated sex-neutral standards for selection and assessment will ensure that all operators who pass will be physically and mentally capable for the demands placed upon special operations elite teams. However, team members, team leadership, and special operations leadership up through the ranks must be aware of and account for the behaviors generally expected from males and females—the gendered nature of social interaction. For integration to be successful, all operators must be engaged on the basis of actual, not expected capability. Females must not be assigned to particular jobs or kept away from others on the basis of their femaleness, only on the basis of capability. And quotas which require accommodation of females who may be of lesser capability than males will create tokens. The

females likely will experience ostracism, role typing and hostility. As much as possible, enhanced scrutiny of females and their units should be avoided.

Team cohesion is as much about the dynamics of men working with and for women (and the associated changes in conceptions of gender identity that entails) as it is about women working with and for men. Assessment and selection criteria may need to consider the willingness and aptitude of candidates for working in a mixed-gender environment. This will help minimize the potential sex- and gender-harassment. Maturity of the force and a focus on professionalism are key to mitigating adverse team dynamics, including sexual assault.

Changing conceptions of gender identity and any values or attitudes that preclude females from being perceived as full players must start with a strong vision of a force enhanced and improved through integration. Leadership at all levels is critical to changing organizational values. The changed organization, where women are treated as equal to men (neither more nor less special) must be modeled at top levels and supported through iconography (posters, recruiting materials, etc.), rituals (awards ceremonies and the like), language, and other important venues. (Note that women must not be made more special—simply treated equally.) USSOCOM must recognize that it has indirect or no control over many of the individuals who hold the values it seeks to change, and must work through others to influence them. Finally, leadership must realize that the complex, dynamic nature of social organizations means that there will be unintended negative consequences of many actions taken for all the right reasons. Organizational culture change can take decades (note some of the problems in the military academies which have had women students for up to 30 years) and can be a very difficult process.

Sustaining a professional force through the promulgation and support of mission-validated, gender-neutral standards will be critical to the integration of the SOF elite teams. If this professionalization is supported by a clear and compelling vision of a gender-integrated force constructed around improved professional capability, the SOF community will begin the journey towards gender-integrated, fully effective elite teams.

Recommendations

SOFMET should be constructed and managed within an environment that will allow them to function professionally and accomplish the wide variety of missions encountered by these teams. To increase the likelihood of this happening, the research covered in this report leads to the following recommendations:

- Develop and promulgate a clear vision of a force improved through the inclusion of females on SOFMET
- Separate successful mission performance from the presentation of gendered behaviors or attributes. Do not allow gender-defined behaviors to dominate team dynamics

- Focus on validated performance standards and mission requirements
- Take advantage of the skill-sets women are more likely than men to bring to the table; but exploit those attributes when found in any SOF personnel
- Recognize that sexual harassment and gender discrimination may happen: Work to actively prevent through degendering activities and inculcation of respect for full-performing professionals. Do not tolerate any incidents ranging from language to physical violence
- Shape and mature the future force through training, education, and policy development
- Prepare for the long term; the effort may take as long as a decade; there may be initial transitory negative responses—be prepared to manage them.

Given the exceptionalism of the women who will be selected for SOF and their potentially extremely small numbers, it will behoove leadership to treat each as a special case, at least initially, assigning her to a team that can best take advantage of what she brings to the game just as one would expect is done for the men. Although examples found in occupations such as mountaineering say that early years may be difficult, NASA's research showed that the addition of females can add dimensionality to a team, and cases like the Smokejumpers and the FBI SWAT teams that have decades of experience with mixed-gender teams give evidence that females can be well integrated into these teams, perform to standard, and have no negative influence on team dynamics. The maturity of the force as expressed through their professionalism and respect for qualified operators regardless of gender will be key to mitigating adverse gender-related team dynamics. The special operations community needs to evolve to a culture where there are no female special operators – where all qualified team members are known as special operators, a gender-free term referring to a member of an elite team. All SOF leadership must be involved in this change, recognizing that full acceptance of females on any and all teams may be as far away as ten years in the future. Leadership must be prepared for problems in the short term—but there is no reason to believe that they cannot look forward to long-term institutional success.

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APPENDIX A: SURVEY OF RETIRED SOF SENIOR LEADERS ON DCAR ELIMINATION

On January 24, 2013, the Secretary of Defense (SecDef) rescinded the 1994 Direct Ground Combat Definition and Assignment Rule (DCAR) that excluded women from assignment to units and positions whose primary mission is to engage in direct combat on the ground. In doing so, his memorandum directs the opening of all occupational specialties (OS), positions and units to women; the validation of gender-neutral standards; and establishes milestones for implementation.

USSOCOM is working closely with the Services and its Components to address implementation for all SOF occupational specialties and positions that may be affected, including Special Forces, Ranger Regiment, SEAL, SWCC, AFSOC Special Tactics, Combat Controllers, SO Weather Officer and Enlisted, and MARSOC Special Operations specialties. The milestones for implementation of the elimination of DCAR elimination are/were:

- 15 May 2013, Military Departments must submit their detailed plans
- July 2015, any requests for exceptions presented to SecDef
- September 2015, validated gender-neutral occupational standards must be completed and used to assess and assign personnel
- 1st Quarter FY 2016, all studies completed
- 1 January 2016, women must be integrated into newly-opened positions and units

To aid in implementation, CDR USSOCOM also asked the Joint Special Operations University's Center for Special Operations Studies and Research to study the social science impacts of introducing women into small elite teams, the SOF Mixed-Gender Elite Teams (SOFMET) study. As part of their preliminary work, the SOFMET study team produced an initial literature survey for USSOCOM-FMD on the introduction of women into small elite teams. Shortly after, the team conducted a brief survey of retired SOF senior leaders (RSSL) on the subject, as a target of opportunity, in conjunction with the annual RSSL Conference, held by JSOU on 13-14 May 2013, the results of which are discussed in this document.^w The survey instrument is included as Attachment 1.

Survey Participants

The survey group consisted of 34 RSSL with experience ranging from former USSOCOM, TSOC, and Component commanders and senior enlisted leaders to ambassadors. 85% of the survey participants were SOF operators at one point in their careers, including Special Forces, SEALs, and AFSOC/160th pilots. Figure 1 shows the branch of service for the

^w There are a multitude of unique, but significant groups that may provide interesting and useful perspectives as SOCOM looks at integrating women into SOF.

participants. Of the participants, 44% had deployed with women at the tactical level at some point in their career. All participants were male, ranging in age from 56 to 83. The survey was conducted following a USSOCOM briefing on the Command's DCAR elimination efforts. After completing a consent form, participants were given the survey instrument, asked to complete it at their desks, and return it to the workshop organizers.

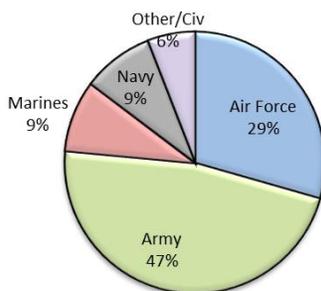


Figure 1 – Armed service branch distribution for RSSL survey participants.

Survey Results

Mission Effectiveness

The purpose of the SOFMET study is to address the question: Can mixed-gender SOF teams effectively accomplish SOF mission objectives? When asked the general question of the effect an assigned female would have on mission effectiveness at the tactical level, 39% of the respondents felt SOF teams would experience a decrease in effectiveness. When asked why, the most common concern was an assumed deficiency in the physical capability of women team members. Some of the respondents that expected a decrease in team effectiveness commented that they might change their opinion if current SOF selection standards did not change for women. A few believed that the different perspective brought to the team by women would in fact increase overall effectiveness, again with the caveat that they be fully qualified through assessment and selection.

With regard to SOF mission effectiveness, the participants were also asked more specifically which SOF core activities would be more difficult as a mixed-gender team and which would be the most challenging. The prevailing opinion was that direct action missions would be the most difficult for mixed-gender teams, believing that physical capabilities (e.g., carrying a wounded team member) are most critical in this mission area. A few respondents also voiced concern over men on a team treating women differently while under fire. To a smaller degree, the group also showed concern for negative impacts in the special reconnaissance, unconventional warfare, and counterterrorism activities.

Retention

When asked about effects on retention within SOF, 61 % expected little to no effect and no one indicated that they expected a strong effect, positive or negative. Some of those that expected a negative effect thought that it would be transient in nature. For example, “I think it would be negative [effect on retention] in the short term but neutral over the long term.”

Team Cohesion

The majority of respondents (55%) expected unit cohesion at the SOF team level to decrease with the assignment of women; another 36% expected little to no impact, while a small portion anticipated a positive effect (9%). While the survey instrument did not explicitly separate the issue into task vs. social cohesion, written comments by the respondents indicate that those who expected a negative effect saw social cohesion as primary (e.g., “The sexual element is in play.” or “Mix boys and girls under stress and close together and humanity will cause issues – it is not performance, it is human nature.”), while those with a neutral to positive expectation saw task cohesion as primary (e.g., “The mission is the priority and if they [women team members] make the team based on talent and capabilities, they will be accepted.”).

Family support

When asked whether their spouse would have supported deploying as part of a mixed-gender team, the majority of participants answered ‘unsupportive’ (22%) or ‘very unsupportive’ (34%). The remainder either expected ‘neutral’ (31%) or ‘supportive’ (13%). No respondents expected spouses to be ‘very supportive’. No follow-up questions were given on this topic, so it is unknown how this factor might connect to team effectiveness, cohesion, or retention. USSOCOM-FMD-J9 plans to conduct focus groups with wives of current SOF operators, providing a much better window into this topic.

Leadership attitudes

While not specifically addressed by the survey instrument, written responses from some of the RSSLs indicate that, if the currently closed SOF occupations and positions are opened to women, attitudes of SOF in senior leadership positions may present an obstacle to implementation. For example, some comments included: “If this were really a good idea, ask why we haven’t considered the questions years ago”, “I believe most think this is not a good idea and we need to say so....Let’s call it what it is and have the courage to resist fixing something that isn’t broken”, “Assigning women to ODAs, SEAL teams, SWC boat teams, etc. for the sake of just doing it is wrong”, and “How does the military overcome female hygiene needs in long-term, dirty environments”. Support at all levels of leadership is necessary to successfully integrate women into SOF teams. While the data are from a small group of former, not current, senior leaders in SOF, senior-level support is an issue to remain aware of as DCAR elimination moves forward.

Summary

The survey given to RSSLs in May 2013 provided a window into the perspective of this unique group on opening SOF teams to women. Many share the opinion that any chance of success requires no compromise in the assessment and selection standards across the SOF enterprise (e.g., “Do not lower the standards for physical and mental endurance”, “Keep the standard!”, and “Do not lower the standards on any test, mental or physical”). This follows the group’s concern with the ability of mixed-gender teams to effectively perform direct action missions, perceived to require the highest level of physical capabilities. The participants also exposed the importance of understanding the contribution and value of task and social cohesion to the effectiveness of small elite teams. During a group discussion following the survey, one participant brought up the generational schism in attitude towards homosexuals in the Marine Corps, and recommended being cognizant of the potential for similar disconnects in attitude toward integration of women into SOF. Though comprising a relatively small sample size, the results of this survey may be useful to compare with the results of a planned survey of current SOF operators, possibly revealing differences in attitude due to generational and experiential factors.

Attachment 1: RSSL Survey Instrument

Survey: DCAR Elimination in SOF

Joint Special Operations University

May 2013

Your input is very important to us. Please check the appropriate response and write in the spaces provided. Ensure all responses are **UNCLASSIFIED**. Thank you for your participation.

1. State your level of agreement: Women are capable of passing current screening and selection for currently closed SOF MOS.

Strongly Disagree..... Disagree..... Neutral..... Agree..... Strongly Agree.....

Why?

2. What effect would an assigned female have on mission effectiveness at the SOF tactical team level?

Strongly Negative..... Negative..... Little to No Impact..... Positive..... Strongly Positive.....

Why?

3. What effect would an assigned female have on unit cohesion at the SOF tactical team level?

Strongly Negative..... Negative..... Little to No Impact..... Positive..... Strongly Positive.....

Why?

4. Which SOF Core Activities would provide mixed-gender teams significant challenges relative to all-male teams? (Check all that apply)

Direct Action..... <input type="checkbox"/>	Foreign Internal Defense..... <input type="checkbox"/>	Civil Affairs..... <input type="checkbox"/>	Counterinsurgency..... <input type="checkbox"/>
Unconventional Warfare..... <input type="checkbox"/>	Information Support Ops..... <input type="checkbox"/>	Special Reconnaissance..... <input type="checkbox"/>	Counterterrorism..... <input type="checkbox"/>
Psychological Operations..... <input type="checkbox"/>	Security Force Assistance..... <input type="checkbox"/>	Counter WMD..... <input type="checkbox"/>	

5. Which SOF Core Activity would provide mixed-gender teams with the MOST challenges relative to all-male teams? (Check only ONE)

Direct Action..... <input type="checkbox"/>	Foreign Internal Defense..... <input type="checkbox"/>	Civil Affairs..... <input type="checkbox"/>	Counterinsurgency..... <input type="checkbox"/>
Unconventional Warfare..... <input type="checkbox"/>	Information Support Ops..... <input type="checkbox"/>	Special Reconnaissance..... <input type="checkbox"/>	Counterterrorism..... <input type="checkbox"/>
Psychological Operations..... <input type="checkbox"/>	Security Force Assistance..... <input type="checkbox"/>	Counter WMD..... <input type="checkbox"/>	

Why?

6. How would opening all SOF occupational specialties affect retention?

Strongly Negative Negative Neutral Positive Strongly Positive

Why?

[Empty text box for response]

7. Would you feel comfortable deploying to an austere environment as part of a small, mixed-gender team?

Very Un-comfortable... Un-comfortable... Neutral Comfortable.. Very Comfortable..

8. Would your spouse have been supportive of you deploying with a mixed-gender team?

Very Unsupportive Unsupportive Neutral Supportive Very Supportive

9. Have you deployed with a female directly in your team/unit at the tactical level?

Yes No

10. Did your support increase or decrease for opening currently closed SOF MOS to females over the course of your career?

Increase Support.... Did not change..... Decrease Support..

Why?

[Empty text box for response]

11. If you had or have a daughter, would you support her pursuing a career in a currently closed SOF MOS?

Yes No

12. Were you a SOF operator at any point in your career?

Yes No

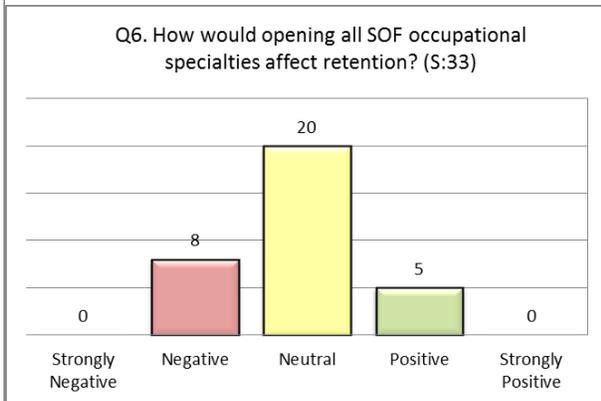
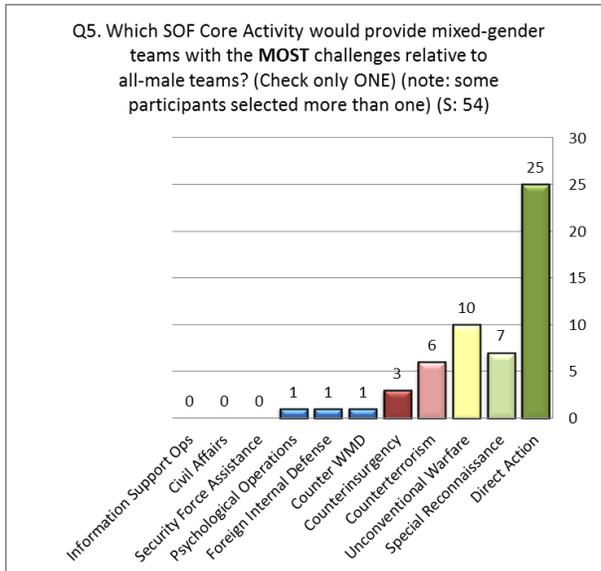
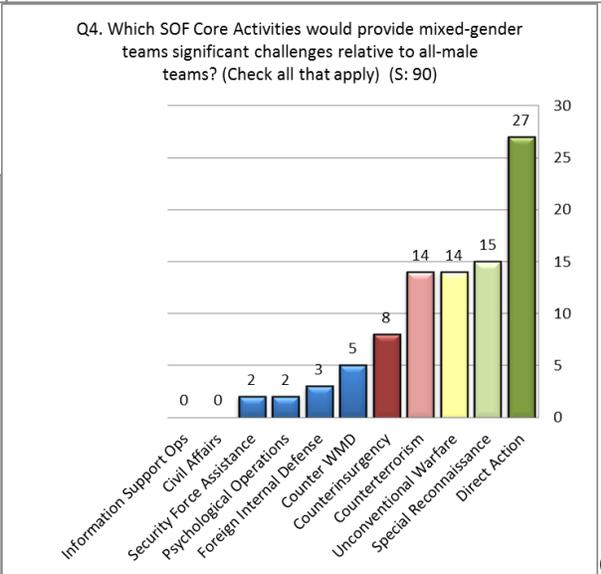
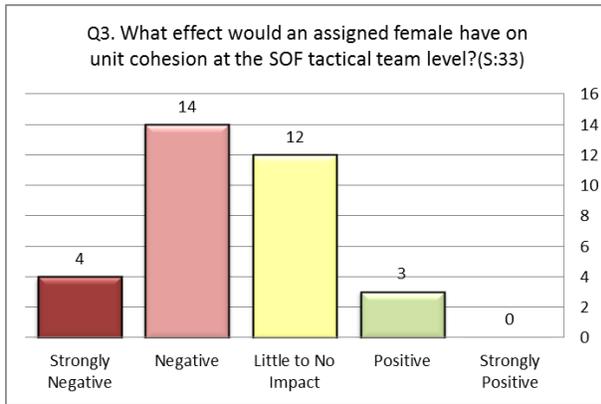
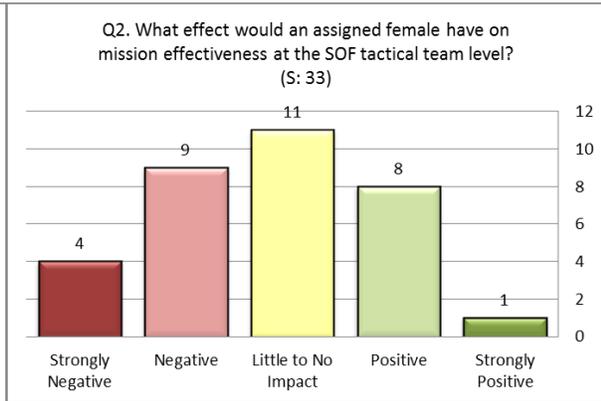
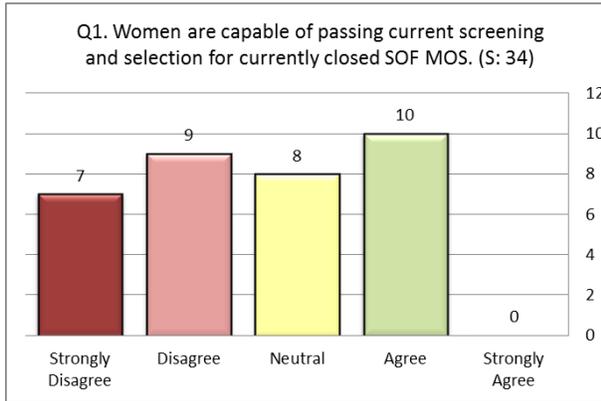
13. What was your branch of service for the longest duration of your career?

Army Navy Air Force Marines Other or Civilian

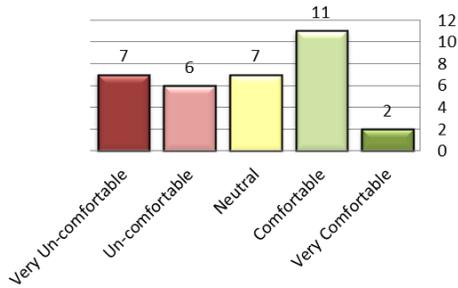
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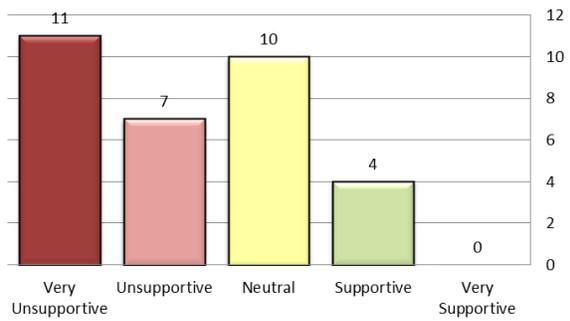
Attachment 2: Quantitative Survey Data



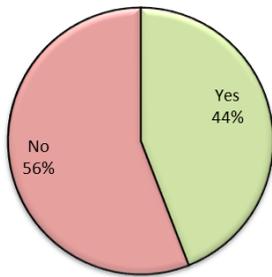
Q7. Would you feel comfortable deploying to an austere environment as part of a small, mixed-gender team? (S:33)



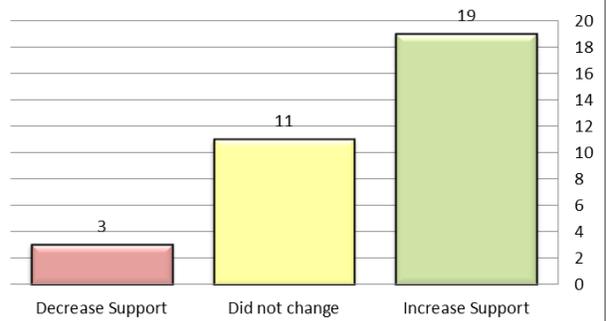
Q8. Would your spouse have been supportive of you deploying with a mixed-gender team? (S:32)



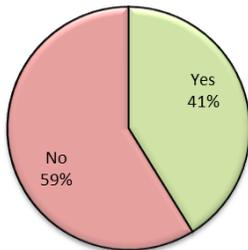
Q9. Have you deployed with a female directly in your team/unit at the tactical level? (S:34)



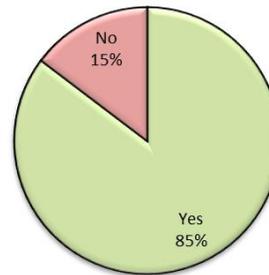
Q10. Did your support increase or decrease for opening currently closed SOF MOS to females over the course of your career? (S:33)



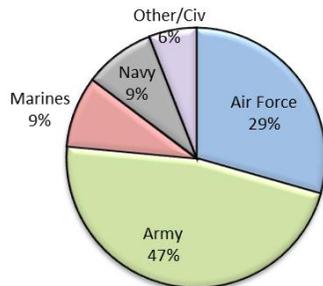
Q11. If you had or have a daughter, would you support her pursuing a career in a currently closed SOF MOS? (S:34)



Q12. Were you a SOF operator at any point in your career? (S:34)



13. What was your branch of service for the longest duration of your career? (S:34)



APPENDIX B. ACRONYMS

ARTEP	Army training and Evaluation Program
ASD(SO/LIC)	Assistant Secretary of Defense (Special Operations and Low-Intensity Conflict)
CANSOF	Canadian Special Operations Regiment
CJCS	Chairman, Joint Chiefs of Staff
COHORT	cohesion, operational readiness and training
COI	community of interest
COIN	counterinsurgency
CSOSR	Center for Special Operations Studies and Research
CT	counterterrorism
DA	direct action
DCAR	Direct Ground Combat Definition and Assignment Rule (DCAR)
DOD	Department of Defense
FBI	Federal Bureau of Investigation
FID	foreign internal defense
FMARS	Flashline Mars Arctic Research Station
HRT	Hostage Rescue Teams
ICE	isolated and confined extreme
IRS	Individual Replacement System
JSOU	Joint Special Operations University
METL	mission essential task list
MFP	Major Force Program
MSOT	Marine Special Operations Team
NASA	National Aeronautics and Space Administration
NCO	noncommissioned officer
NOFEAR	Notification and Federal Employee Antidiscrimination and Retaliation [Act of 2002]
OS	occupational specialties
REFORGER	Return of Forces to Germany
SEAL	SEa, Air and Land
SecDef	Secretary of Defense
SF	Special Forces
SFODA	Special Forces Operational Detachment Alpha
SOF	Special Operations Forces
SOFMET	Special Operations Forces Mixed-gender Elite Teams
SR	strategic reconnaissance
STS	Special Tactics Squadron
SWAT	Special Weapons And Tactics
USSOCOM	United States Special Operations Command
UW	unconventional warfare
WIS	women in service

ENDNOTES

- ¹ “Elimination of the 1994 Direct Ground Combat Definition and Assignment Rule.” Secretary of Defense Memorandum for Secretaries of the Military Departments, January 24, 2013.
- ² “U.S. Special Operations Command Implementation Plan for Elimination of Direct Ground Combat Assignment Rule.” Commander, USSOCOM Memorandum for the Service Chiefs, March 22, 2013.
- ³ Quirin, Jason, William Knarr, Juan Alvarez, Richard Rubright, *Women in SOF – Initial Review*, the Center for Special Operations Studies and Research, 27 March 2013.
- ⁴ There is a tremendous body of literature on the sex/gender distinction. See, for example, West, C., and D. H. Zimmerman (1987). “Doing Gender.” *Gender & Society*, 1(2), 125-151. For additional references, see the full study.
- ⁵ Ridgeway, C. L. (2009). “Framed Before We Know It: How Gender Shapes Social Relations.” *Gender & Society*, 23(2), 145-160.
- ⁶ See Tajfel, Henri. (1982). “Social Psychology of Intergroup Relations.” *Annual Review of Psychology*, Vol. 33, 1-39, for discussion of the formation of social identities.
- ⁷ Britton, D. M. (2000). “The epistemology of the gendered organization.” *Gender & Society*, 14(3), 418-434.
- ⁸ Horwitz, S. K. (2005). “The compositional impact of team diversity on performance: Theoretical considerations.” *Human Resource Development Review*, 4(2), 219-245.
- ⁹ Kanter, R. M. (1977). *Men and Women of the Corporation*. New York: Basic Books; Yoder, J. (1991). “Rethinking Tokenism: Looking beyond Numbers.” *Gender and Society*, 9 (2), 178-192.
- ¹⁰ Siebold, G. L. (1999). “The evolution of the measurement of cohesion.” *Military Psychology*, 11(1), 17.
- ¹¹ MacCoun, R. J., and M. Hix (2010). “Unit cohesion and military performance,” 137-165. In (2010) “Sexual orientation and U.S. military personnel policy: An update of RAND’s 1993 Study.” Santa Monica, CA: RAND (National Defense Research Institute), 140.
- ¹² Task and Social Cohesion are defined and discussed in two RAND studies commissioned by the Department of Defense, and as well as many papers published in peer-reviewed academic journals. See, for example, Harrell, M. and L. L. Miller (1997). “New opportunities for women: Effects upon readiness, cohesion and morale.” Santa Monica, CA: RAND (National Defense Research Institute); (2010). “Sexual orientation in U.S. military personnel policy: An update of RAND’s 1993 study;” Santa Monica, CA: RAND (National Defense Research Institute); Beal, D. J., R. R. Cohen, M.J. Burke, and C. L. McLendon (2003) “Cohesion and performance in groups: A meta-analytic classification of construct relations.” *Journal of Applied Psychology*, 88(6), 989-1004.
- ¹³ MacCoun, R. (1993). “What is known about unit cohesion and military performance,” 283-331. See also “Sexual orientation and U.S. military personnel policy: Options and assessment.” National Defense Research Institute, Santa Monica, CA: RAND (National Defense Research Institute), 330.
- ¹⁴ MacCoun and Hix, “Unit cohesion and military performance,” 143.
- ¹⁵ Hogg, M., and S. C. Hains (1998). “Friendship and group identification: A new look at the role of cohesiveness in groupthink.” *European Journal of Social Psychology*, 28, 323-341.
- ¹⁶ See, for example, Siebold, “The evolution of the measurement of cohesion.”
- ¹⁷ Vaitkus, M. A. (1994). “Unit manning system: Human dimensions field evaluation of the COHORT company replacement model” (No. WRAIR/TR-94-0017). Walter Reed Army Institute of Research, Washington, DC; Mullen, B. and C. Copper (1995). “The relation between group cohesiveness and performance: An integration,” Alexandria, VA: U.S. Army Research Institute for the Behavioral and Social Sciences, 37.
- ¹⁸ (1977). “Women Content in Units Force Development Test (MAX WAC).” Arlington, VA: U.S. Army Research Institute for the Behavioral and Social Sciences, 3 October 1977; Johnson, C. D., B. B. Cory, R. W. Day, L. W. Oliver (1978). “Women Content in the Army–REFORGEN 77” (REF WAC). Alexandria, VA: U.S. Army Research Institute. 30 May; Herres, Robert T. (1992). *The Presidential Commission on the Assignment of Women in the Armed Forces Report to the President, November 15, 1992*. Washington, DC: The Commission; “Women in the Military: Deployment in the Persian Gulf War.” Washington, DC: General Accounting Office, July.
- ¹⁹ See, for example, Rosen, L. N., K. H. Knudson, and P. Fancher (2003). “Cohesion and the culture of hypermasculinity in U.S. Army units.” *Armed Forces & Society*, Spring, 325-351.
- ²⁰ Schein, E. H. (1990). “Organizational Culture.” *American Psychologist*, 45(2), 109-119.
- ²¹ Ibid.
- ²² Demers, C. (2007). *Organizational change theories: A synthesis*. Thousand Oaks, CA: Sage.

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- ²³ Kotter, John P., and James L. Heskett (1992). *Corporate Culture and Performance*. The Free Press. New York, NY.
- ²⁴ Flashline Mars Arctic Research Station home page. Accessed at <http://arctic.marssociety.org/home>; Bishop, S. L., R. Kobrick, M. Battler, and K. Binsted (2010). "FMARS 2007: Stress and coping in an arctic Mars simulation." *Acta Astronautica*, 66(9), 1353-1367. See also Binsted, K., R. L. Kobrick, M. O. Griofa, S. Bishop, and J. Lapierre (2010). "Human factors research as part of a Mars exploration analogue mission on Devon Island." *Planetary and Space Science*, 58(7), 994-1006.
- ²⁵ For a summary of and references to several studies, see Leon, G. R. (2005). "Men and women in space." *Aviation Space and Environmental Medicine*, 76 (Supplement 1), B84-B88.
- ²⁶ See, for example, Kahn, P. M., and G. R. Leon (1994). "Group climate and individual functioning in an all-women Antarctic expedition team." *Environment and Behavior*, 26(5), 669-697.
- ²⁷ See, for example, Kramer, P., and B. L. Drinkwater (1980). "Women on Annapurna." *Physician and Sportsmedicine*, 8, 93-99; Frohlick, S. (2000). "The Hyper-Masculine Landscape of High-Altitude Mountaineering." *Michigan Feminist Studies* Vol. 14, 81-104; Ortner, S. B. (2001). *Life and Death on Mt. Everest: Sherpas and Himalayan Mountaineering*. Princeton University Press.
- ²⁸ For more information, see Ely, R. J., and D. E. Meyerson (2010). "An organizational approach to undoing gender: The unlikely case of offshore oil platforms." *Research in Organizational Behavior*, 30, 3-34.
- ²⁹ January 24, 2013 Memorandum for Secretaries of the Military Departments, Subject: Elimination of the 1994 Direct Ground Combat Definition and Assignment Rule.
- ³⁰ "Dempsey: Allowing Women in Combat Strengthens Joint Force." Article by Cheryl Pellerin American Forces Press Service, Washington, 24 Jan 2013. Posted on Joint Chiefs of Staff web page. <http://www.jcs.mil/newsarticle.aspx?id=1074>.
- ³¹ Memo from General Martin E. Dempsey, Chairman of the Joint Chiefs of Staff to the Secretary of Defense, Subject: Women in the Service Implementation Plan. 9 January 2013. CM-0017-13. http://www.google.com/url?sa=t&rct=j&q=women%20in%20the%20service%20implementation%20plan%209%20january%202013&source=web&cd=1&ved=0CCKQFjAA&url=http%3A%2F%2Fwww.hsdl.org%2F%3Fview%26did%3D729422&ei=9ZLMUtvCcsL0oATmjIH4CA&usg=AFQjCNGP2INGKfCHUyJCS9fuXR5EUvyWQ&sig2=myYfECDpOjT0g4gDtKx_6Q&bvm=bv.58187178,d.cGU.
- ³² Quirin et al., *Women in SOF: Initial Review*.
- ³³ Sandal, G. M., G. R. Leon, and L. Palinkas (2006). "Human challenges in polar and space environments." *Reviews in Environmental Science and Bio/Technology*, 5(2-3), 281-296.
- ³⁴ P.L. 99-661, § 1311 (j).
- ³⁵ Spulak Jr., R. G. (2007). *A Theory of Special Operations: The Origin, Qualities, and use of SOF*. MacDill AFB, FL: Joint Special Operations University (JSOU) Press.
- ³⁶ See, for example, Scanzillo, T. M. (2010). "Influence: Maximizing Effects to Create Long-Term Stability." Joint Military Operations Department, Naval War College. Newport, RI. <http://www.dtic.mil/dtic/tr/fulltext/u2/a538741.pdf>.
- ³⁷ USSOCOM web page <http://www.socom.mil/Pages/SOFTruths.aspx> accessed on 22 April 2014.
- ³⁸ Cole, E.R. (2009). "Intersectionality and research in psychology." *American Psychologist*. 64:170-80
- ³⁹ Sandal et al., "Human challenges in polar and space environments," 281-296.
- ⁴⁰ Dempsey, Women in the Service memo.
- ⁴¹ <http://www.merriam-webster.com/dictionary/diversity>.
- ⁴² West and Zimmerman, "Doing Gender," 125-151, 128.
- ⁴³ Ridgeway, "Framed Before We Know It," 145-160, 148.
- ⁴⁴ West and Zimmerman, "Doing Gender," 126, 127.
- ⁴⁵ Material for this part of the discussion came primarily from Hyde, J.S. 2014. "Gender Similarities and Differences." *Annual Review of Psychology*, Vol. 65: (Volume publication date January 2014).
- ⁴⁶ Sherman, E. L., and J. A. Chatman (2013). "National Diversity Under Pressure: Group Composition and Expedition Success in Himalayan Mountaineering," 28.
- ⁴⁷ Space Studies Board, National Research Council. (1998). *A strategy for research in space biology and medicine in the new century*. National Research Council, Washington, DC.
- ⁴⁸ Tajfel, "Social Psychology of Intergroup Relations."
- ⁴⁹ Hogg, M. A., D. J. Terry, and K. M. White (1995). "A Tale of Two Theories: A Critical Comparison of Identity Theory with Social Identity Theory." *Social Psychology Quarterly*. Vol.58, No.4, 255-269.

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- ⁵⁰ Hogg, M. A. (2006). "Social identity theory." *Contemporary Social Psychological Theories*, 111-136.
- ⁵¹ Connell, R. W., and J. W. Messerschmidt (2005). "Hegemonic masculinity rethinking the concept." *Gender & Society*, 19(6), 829-859, 832.
- ⁵² West and Zimmerman, "Doing Gender," 130.
- ⁵³ Prentice, D. A., and D. T. Miller (2007). "Psychological essentialism of human categories." *Current Directions in Psychological Science*, 16, 202-206, 202.
- ⁵⁴ Carothers, B. J., and H. T. Reis (2012). "Men and women are from Earth: Examining the latent structure of gender." *Journal of Personality and Social Psychology*. Advance online publication http://www.psych.rochester.edu/people/reis_harry/assets/pdf/CarothersReis_2012.pdf.
- ⁵⁵ Hyde, J. S. (2013). "Gender Similarities and Differences." Review in Advance. *Annual Review of Psychology* (2014), 65:3.1-3.26 <http://www.annualreviews.org/doi/pdf/10.1146/annurev-psych-010213-115057>.
- ⁵⁶ Ibid.
- ⁵⁷ Ridgeway, "Framed Before We Know It," 148.
- ⁵⁸ Ibid., 152.
- ⁵⁹ Britton, "The epistemology of the gendered organization."
- ⁶⁰ Ely and Meyerson, "An organizational approach to undoing gender," 30, 3-34.
- ⁶¹ Ibid., 3.
- ⁶² Ibid.
- ⁶³ Ibid., 5.
- ⁶⁴ Ibid., 6.
- ⁶⁵ Silva, J. M. (2008). "A New Generation of Women? How female ROTC cadets negotiate the tension between masculine military culture and traditional femininity." *Social Forces*, 87(2), 937-960, 945.
- ⁶⁶ Barrett, F. J. (1996). "The organizational construction of hegemonic masculinity: The case of the U.S. Navy." *Gender, Work & Organization*, 3(3), 129-142, 140.
- ⁶⁷ Ibid., 133.
- ⁶⁸ Marlowe, David H. "The Manning of the Force and the Structure of Battle: Part 2: Men and Women." *Conscripts and Volunteers*. Fullinwider, Robert K. (ed.) 1983., 193-94. 189, cited in Morris, M. (1995). "By force of arms: Rape, war, and military culture." *Duke Law Journal*. 45, 651-781, 748.
- ⁶⁹ Rosen et al., "Cohesion and the culture of hypermasculinity," 326.
- ⁷⁰ Morris, "By force of arms," 651-781, 756.
- ⁷¹ See, for example, Morris, "By force of arms." Rosen et al., "Cohesion and the culture of hypermasculinity."
- ⁷² Rosen et al., "Cohesion and the culture of hypermasculinity."
- ⁷³ Ibid., 346.
- ⁷⁴ See, for example, Morris, "By force of arms."
- ⁷⁵ Miller, L. L. (1997). "Not Just Weapons of the Weak: Gender Harassment as a Form of Protest for Army Men." *Social Psychology Quarterly*, 60 (1), 32-51.
- ⁷⁶ Morris, "By force of arms," 738.
- ⁷⁷ The Ender et al. study used the Biannual Attitude Survey of Students, or BASS. The BASS is a longitudinal study of mostly freshmen and sophomore undergraduate students at civilian colleges and universities and military academies. The study used data from surveys administered between 2002-2010 to 5,051 students at 41 different institutions.
- ⁷⁸ Ender, M.G., D. E. Rohall, and M. D. Matthews (2013-12-09). *The Millennial Generation and National Defense: Attitudes of Future Military and Civilian Leaders* (Kindle Locations 1500-1501). Palgrave Macmillan. Kindle Edition.
- ⁷⁹ January 24, 2013 Memorandum for Secretaries of the Military Departments.
- ⁸⁰ Kanter, *Men and Women of the Corporation*, 208.
- ⁸¹ Ott, E. M. (1989). "Effects of the male-female ratio at work: Policewomen and Male Nurses." *Psychology of Women Quarterly*, 13, 41-57.
- ⁸² Kanter, *Men and Women of the corporation*.
- ⁸³ Morris, "By force of arms," 740.
- ⁸⁴ Yoder, "Rethinking Tokenism," 178-192, 185.
- ⁸⁵ Blalock, Hubert M. (1967). "Toward a theory of minority-group relations," cited in Rosen, Leora N., Paul D. Bliese, Kathleen A. Wright, and Robert K. Gifford. "Gender Composition and Group Cohesion in US Army Units: A Comparison across Five Studies." *Armed Forces & Society* 25, no. 3 (1999): 365-386, 366.

-
- ⁸⁶ Rosen, Leora N., Doris B. Durand, Paul D. Bliese, Ronald R. Halverson, Joseph M. Rothberg, and Nancy L. Harrison (1996). "Cohesion and readiness in gender-integrated combat service support units: the impact of acceptance of women and gender ratio." *Armed Forces & Society*, vol. 22, no. 4, 537-553, 540.
- ⁸⁷ Archbold, C. A., and D. M. Schulz (2008). "Making rank: The lingering effects of tokenism on female officers' promotion aspirations." *Police Quarterly*, 11 (1), 50-73.
- ⁸⁸ Yoder, "Rethinking Tokenism."; Zimmer, L. (1988). "Tokenism and women in the workplace: The limits of gender-neutral theory." *Social Problems*, 64-77.
- ⁸⁹ Yoder, "Rethinking Tokenism."
- ⁹⁰ Turco, C. J. (2010). "Cultural Foundations of Tokenism Evidence from the Leveraged Buyout Industry." *American Sociological Review*, 75(6), 894-913.
- ⁹¹ Reviewed in Yoder, "Rethinking Tokenism."
- ⁹² *Ibid.*, 179.
- ⁹³ Yoder, J., and Lynne L. Berendsen (2001). "'Outsider Within' the Firehouse: African American and White Women Firefighters," *Psychology of Women Quarterly*, 25: 27-36, 34.
- ⁹⁴ Stronshine, M. S. and St. G. Brandl (2011). "Race, gender and tokenism in policing: An empirical elaboration." *Police Quarterly*, 14, (4), 344-365.
- ⁹⁵ *Ibid.*, 360.
- ⁹⁶ Yoder, "Rethinking Tokenism," 187.
- ⁹⁷ Yoder and Berendsen, "Outsider Within."
- ⁹⁸ Muir, K. (1992). *Arms and the Woman: Female Soldiers at War*, London: Sinclair-Stevenson Ltd., 312, quoted in Cnossen, L. (1994). "Token or full member of the team?: An examination of the utilization and status of women in the combat arms forces of Canada, the United Kingdom and the United States of America." Thesis for the degree doctor of philosophy, University of Hull.
- ⁹⁹ Ott, E. M., "Effects of the male-female ratio," 48.
- ¹⁰⁰ Yoder and Berendsen, "Outsider Within," 31.
- ¹⁰¹ Yoder, "Rethinking Tokenism," 188.
- ¹⁰² See, for example, De Dreu, C. K. W., and M. A. West (2001). "Minority dissent and team innovation: The Importance of participation in decision-making." *Journal of Applied Psychology*, 86, 1191-1201. doi:10.1037//0021-9010.86.6.1191; Martin, R., and M. Hewstone (2003). "Majority and minority influence: When, not whether, source status instigates heuristic or systematic processing." *European Journal of Social Psychology*, 33, 313-330. doi:10.1002/ejsp.146.
- ¹⁰³ Rosen et al., "Cohesion and the culture of hypermasculinity," 346.
- ¹⁰⁴ Morris, "By force of arms," 751.
- ¹⁰⁵ Britton, "The epistemology of the gendered organization," 418-434, 429.
- ¹⁰⁶ Ely and Meyerson. "An organizational approach to undoing gender," 27.
- ¹⁰⁷ Horwitz, "The compositional impact of team diversity on performance," 219-245, 226.
- ¹⁰⁸ *Ibid.*, 227.
- ¹⁰⁹ Wood, W. (1987). "Meta-analytic review of sex differences in group performance." *Psychological Bulletin*, 102(1), 53-71, 70, cited in Horwitz, "The compositional impact of team diversity on performance," 219-245, 228.
- ¹¹⁰ Dempsey, Women in Service memo.
- ¹¹¹ U.S. Code Title 10 §654 (a) (7).
- ¹¹² MacCoun and Hix, "Unit cohesion and military performance," 137-165. In (2010) *Sexual orientation and U.S. military personnel policy: An update of RAND's 1993 Study*. Santa Monica, CA: RAND (National Defense Research Institute).
- ¹¹³ *Ibid.*
- ¹¹⁴ http://www.dtic.mil/doctrine/dod_dictionary/?zoom_query=&zoom_sort=0&zoom_per_page=10&zoom_and=1
- ¹¹⁵ Manning, F. J. (1994). "Morale and cohesion in military psychiatry." The Office of the Surgeon General's Military Psychiatry: Preparing in Peace for War, 4.
- ¹¹⁶ Forsyth, D. R. (2006). *Group Dynamics*, 4th edition, Belmont, CA: Thomas Wadsworth. 14; Chapter 1 also contains a lengthy review of types of groups.
- ¹¹⁷ Herres, *The Presidential Commission on the Assignment of Women in the Armed Forces*, 80.
- ¹¹⁸ Cota, A. A., K. L. Dion, C. R. Evans, L. Kilik, R. S. Longman (1995). "The Structure of Group Cohesion." *Personality and Social Psychology Bulletin*, 21, 572-580. For a review of conceptual issues and cohesion see

-
- Bartone, Paul T. (2002). "Factors influencing small-unit cohesion in Norwegian officer cadets." *Military Psychology*, 14(1), 1-22 and Beal et al., "Cohesion and performance in groups."
- ¹¹⁹ Vaitkus, M. A. (1994). "Unit Manning System: Human Dimensions Field Evaluation of the COHORT company Replacement Model" (No. WRAIR/TR-94-0017). Walter Reed Army Institute of Research, Washington, DC., 59.
- ¹²⁰ *Ibid.*, 60.
- ¹²¹ See, for example, Siebold, "The evolution of the measurement of cohesion."
- ¹²² Manning, "Morale and cohesion in military psychiatry," 4-5.
- ¹²³ *Ibid.*, 8.
- ¹²⁴ American Psychological Association, "Glossary of Psychological Terms" from Gerrig, R. J., Philip G., & Zimbardo, P. G. (2002). *Psychology And Life*, 16/e. Boston: Allyn and Bacon, Accessed at <http://www.apa.org/research/action/glossary.aspx#s>.
- ¹²⁵ Griffith, J. and M. Vaitkus (1999). "Relating cohesion to stress, strain, disintegration, and performance: An organizing framework," *Military Psychology*, 11(1) 27-55, 31.
- ¹²⁶ MacCoun and Hix, "Unit cohesion and military performance," 144.
- ¹²⁷ Segal, D. R., and M. Kestnbaum (2002). "Professional Closure in the Military Labor Market: A Critique of Pure Cohesion," in D. M. Snider and G. L. Watkins, (Eds.), *The future of the Army profession*, 439-458. New York: McGraw Hill, 439-458, 445, quoted in MacCoun and Hix "Unit cohesion and military performance," 144.
- ¹²⁸ King, A. (2013). *The Combat Soldier: Infantry Tactics and Cohesion in the Twentieth and Twenty-first Centuries*. Oxford: Oxford University Press, 32.
- ¹²⁹ MacCoun and Hix, "Unit cohesion and military performance," 140.
- ¹³⁰ *Ibid.*
- ¹³¹ Dion, K. L. (2000). "Group cohesion: From 'field of forces' to multidimensional construct." *Group Dynamics: Theory, Research, and Practice*, 4(1), 7-26.
- ¹³² Harrell and Miller, "New opportunities for women.;" MacCoun and Hix, "Unit cohesion and military performance." Beal et al., "Cohesion and performance in groups.;" Carless, S. A., and C. de Paola. (2000). "The measurement of cohesion in work teams." *Small Group Research*, 31(1), 71-88, 71; Carron, A. V., and L. R. Brawley (2000). "Cohesion: conceptual and measurement issues." *Small Group Research*, 31(1), 89-106; Casey-Campbell, M. and Martin L. Martens (2009). "Sticking it all together: A critical assessment of the Group cohesion-performance literature." *International Journal of Management Reviews*, 11 (2), 223-246; Chang, A., and P. Bordia (2001). "A multidimensional approach to the group cohesion-group performance relationship." *Small Group Research*, 32 (4), 379-405, 379.; Chiocchio, F., and H. Essiembre (2009). "Cohesion and performance: A meta-analytic review of disparities between project teams, production teams, and service teams." *Small Group Research*, 40 (4), 382-42.; Cota et al., "The structure of group cohesion," 572-580; Kier, E. (1998). "Homosexuals in the U.S. Military: Open Integration and Combat Effectiveness." *International Security*, 23(2), 5-39; Mullen and Copper, "The relation between group cohesiveness and performance."
- ¹³³ MacCoun, "What is known about unit cohesion and military performance."
- ¹³⁴ MacCoun and Hix, "Unit cohesion and military performance," 140.
- ¹³⁵ Rosen, et al., "Cohesion and the culture of hypermasculinity, 332.
- ¹³⁶ Siebold, G. L. and T. J. Lindsay (2000). "The relation between demographic descriptors and soldier-perceived cohesion and motivation." *Military Psychology*, 11(1), 109-128, 126.
- ¹³⁷ MacCoun and Hix, "Unit cohesion and military performance," 140, 156.
- ¹³⁸ *Ibid.*, 155.
- ¹³⁹ For a detailed review of the history of measuring cohesion, especially within a military setting, see Siebold, G. L. (2000).
- ¹⁴⁰ Griffith and Vaitkus, "Relating cohesion to stress."
- ¹⁴¹ For a detailed review of the history of measuring cohesion, especially within a military setting, see Siebold, G. L. (2000).
- ¹⁴² Mullen and Copper, "The relation between group cohesiveness and performance," 15.
- ¹⁴³ *Ibid.*, 36-37.
- ¹⁴⁴ *Ibid.*, 37.
- ¹⁴⁵ MacCoun, R. J., E. Kier, A. Belkin (2006). "Does social cohesion determine motivation in combat? An old question with an old answer." *Armed Forces & Society*, 32(4), 646-654, 647.
- ¹⁴⁶ Siebold and Lindsay, "The relation between demographic descriptors and soldier-received cohesion and motivation," 109-128.

-
- ¹⁴⁷ MacCoun, R. (1993). "What is known about unit cohesion," 330.
- ¹⁴⁸ Stouffer, S. A., et al., (1949). *The American Soldier, Vol. 1*. Princeton, NJ: Princeton University Press, quoted in DeFleur, Lois B. (1985) *Four Years of Sex Integration at the United States Air Force Academy: Problems and Issues*, Colorado: United States Air Force Academy, 23.
- ¹⁴⁹ Moskos, C. C. (1971). "Minority groups in military organizations," 271-289, in R. Little (ed) *Handbook of Military Institutions*. Beverly Hills: Sage, quoted in DeFleur, *Four years of sex integration at the United States Air Force Academy*, 24.
- ¹⁵⁰ Bartone, "Factors influencing small-unit cohesion," 1-22, 16.
- ¹⁵¹ Moskos, "Minority groups in military organizations," 24.
- ¹⁵² See, for example, Grossman, L. C. D. (2002). *On Killing*.
- ¹⁵³ Wong, L. et al., (2003). *Why they fight: Combat motivation in the Iraq War*, Carlisle Barracks, PA: U.S. Army War College, 23, 25.
- ¹⁵⁴ *Ibid.*, 11-14.
- ¹⁵⁵ *Ibid.*, 23.
- ¹⁵⁶ MacCoun, Kier, and Belkin, "Does social cohesion."
- ¹⁵⁷ *Ibid.*
- ¹⁵⁸ Quoted in MacCoun and Hix, "Unit cohesion and military performance," 141.
- ¹⁵⁹ *Ibid.*, 153.
- ¹⁶⁰ Rosen, L. N., P. D. Bliese, K. A. Wright, and R. K. Gifford (1999) "Toward a theory of minority," 2.
- ¹⁶¹ Moskos, C. C. (1966). "Racial integration in the armed forces." *American Journal of Sociology*, 132-148. 138-139.
- ¹⁶² Moskos, "Minority groups in military organizations," 23.
- ¹⁶³ Office of the Inspector General, U.S. Department of Defense. Accessed at http://www.dodig.mil/EEO/2ndQtr_FY2014_NOFEARACT_2014.pdf.
- ¹⁶⁴ MacCoun and Hix, "Unit cohesion and military performance," 143.
- ¹⁶⁵ King, *The Combat Soldier*, 32.
- ¹⁶⁶ Harrell and Miller, "New opportunities for women," 54.
- ¹⁶⁷ See Janis, I. L. (1982). *Groupthink: Psychological studies of Policy Decisions and Fiascoes* (2nd edition), Boston, MA: Houghton Mifflin, quoted in Hogg and Hains, "Friendship and group identification," 28, 323-341, 338.
- ¹⁶⁸ Hogg and Hains, "Friendship and group identification," 28, 323-341, 338.
- ¹⁶⁹ *Ibid.*, 337.
- ¹⁷⁰ Rielley, R. (2001). "The darker side of the force: The negative influence of cohesion." *Military Review*, March-April, 66-72, 67.
- ¹⁷¹ *Ibid.*, 70.
- ¹⁷² Lilienfeld, S., Steven, S. J., Namy, L. L. & Woolf, N. J. (2008). *Psychology: From Inquiry to Understanding*, 2nd edition. New York: Pearson.
- ¹⁷³ Barret, C. (2012). "Finding 'The right way': Toward an Army institutional ethic." Carlisle, PA: Army War College.
- ¹⁷⁴ Toner, J. (1996). "Leadership, community and virtue." *Joint Forces Quarterly*, Spring, 100.
- ¹⁷⁵ Bartone, "Factors influencing small-unit cohesion," 1-22, 17.
- ¹⁷⁶ *Ibid.*, 16.
- ¹⁷⁷ Rosen et al., "Cohesion and the culture of hypermasculinity," 326.
- ¹⁷⁸ Morris, M., "By force of arms."
- ¹⁷⁹ Rosen et al., "Cohesion and the culture of hypermasculinity," 344.
- ¹⁸⁰ *Ibid.*, 344.
- ¹⁸¹ *Ibid.*, 345.
- ¹⁸² *Ibid.*, 346.
- ¹⁸³ (1977). *Women Content in Units Force Development Test (MAX WAC)*. Arlington, VA: U.S. Army Research Institute for the Behavioral and Social Sciences, 3 October, foreword.
- ¹⁸⁴ *Ibid.*, I-2.
- ¹⁸⁵ Johnson et al., *Women Content in the Army*.
- ¹⁸⁶ *Ibid.*
- ¹⁸⁷ Herres, *The Presidential Commission on the Assignment of Women in the Armed Forces*, 81.

-
- ¹⁸⁸ (1993). *Women in the Military: Deployment in the Persian Gulf War*. Washington, DC: General Accounting Office, July, 38.
- ¹⁸⁹ *Ibid.*, 38.
- ¹⁹⁰ Cited in Field, K. and J. Nagl (2001). "Combat roles for women: A modest proposal." *Parameters*, Summer 2001, 74-88.
- ¹⁹¹ Harrell and Miller, "New opportunities for women," 58-59.
- ¹⁹² *Ibid.*
- ¹⁹³ *Ibid.*, 57.
- ¹⁹⁴ Rosen, L. N., P. D. Bliese, K. A. Wright, and R. K. Gifford (1999) "Toward a theory of minority."
- ¹⁹⁵ *Ibid.*, 37.
- ¹⁹⁶ Rosen et al., "Cohesion and the culture," 332.
- ¹⁹⁷ MacCoun and Hix, "Unit cohesion and military performance," 155.
- ¹⁹⁸ Harrell and Miller, "New opportunities for women," 63.
- ¹⁹⁹ Cnossen, "Token or full member of the team?"
- ²⁰⁰ Yoder and Berendsen, "Outsider within," 33.
- ²⁰¹ Meehan, P., O. Gadiesh, and S. Hori (2006). "Culture as a Competitive Advantage." *Leader to Leader*, 1 (1), 55-61.
- ²⁰² Moreland, Juli (2011). "Steve Jobs, Apple and the importance of company culture." *Fast Company*, Nov. 2. Accessed at <http://www.fastcompany.com/1792485/steve-jobs-apple-and-importance-company-culture>.
- ²⁰³ Goo, Sara Kehaulani (2006). Building a 'Googley' workforce, *The Washington Post*, October 21.
- ²⁰⁴ 9/11 Commission. "Final report of the national commission on terrorist attacks upon the United States." Washington, DC: U.S. Government (2004).
- ²⁰⁵ Congress, U.S. "Report of the panel to review sexual misconduct allegations at the U.S. Air Force Academy, September 22, 2003." Washington, DC, (2003), 59.
- ²⁰⁶ *Ibid.*, 59.
- ²⁰⁷ *Ibid.*, 59.
- ²⁰⁸ Schemo, Diana Jean (2003). "Air Force ignored academy abuse." *The New York Times*, September 23.
- ²⁰⁹ Weick, K. E. (1995). *Sensemaking in Organizations* (Vol. 3). Thousand Oaks, CA: Sage; Sackman, Sonya A. (1982). "Culture and subcultures: An analysis of organizational knowledge." *Administrative Science Quarterly*, 37, 140-161.
- ²¹⁰ A review of all the definitions and models of organizational culture falls outside the scope of this study. Schein's model of organizational culture is the most cited. This model, and proposed modifications by other scholars, is the focus of this chapter.
- ²¹¹ Schein, "Organizational Culture."
- ²¹² See Denison, D. R. (1996). "What is the difference between organizational culture and organizational climate? A native's point of view on a decade of paradigm wars." *Academy of Management Review*, 21(3), 619-654. For a good overview of this polarity.
- ²¹³ Geertz, C. (1973). *The Interpretation of Cultures: Selected essays* (Vol. 5019), Basic Books, 93.
- ²¹⁴ Lewin, K. (1951). *Field Theory in Social Science*.
- ²¹⁵ Martin, J. L. (2003). "What Is Field Theory?" *American Journal of Sociology*, 109(1), 1-49.
- ²¹⁶ Schein, "Organizational Culture," 7.
- ²¹⁷ *Ibid.*, 109-119, 116.
- ²¹⁸ Schein, E. H. (2010). *Organizational Culture and Leadership*, 4th edition. Hoboken, NJ: Jossey-Bass, 32.
- ²¹⁹ Bunch, Kay (2007). "Training failure as a consequence of organizational culture." *Human Resource Development and Review*, 6 (2), 142-163, 149.
- ²²⁰ Holland, D.C, W. Lachicolte Jr., D. Skinner, and C. Cain (1998). *Identity and Agency in Cultural Worlds*. Cambridge, MA: Harvard University Press.
- ²²¹ Weitekamp, M. A. (2004). *Right Stuff, Wrong Sex: America's First Women in Space Program*. Johns Hopkins University Press.
- ²²² <http://www.history.army.mil/moh/>.
- ²²³ Dempsey, Women in Service memo.
- ²²⁴ Naylor, Sean D. (2009). "SOCOM chief admits non-SOF forces' help." *Army Times*, August 15.
- ²²⁵ *Ibid.*
- ²²⁶ Weitekamp, *Right Stuff, Wrong Sex*.

-
- ²²⁷ See, for example, Evans-Pritchard, Edward Evan. *The Nuer*. Vol. 940. Clarendon: Oxford, 1940. A structural-functional approach underlay the much-cited local engagement strategies outlined in the recent counterinsurgency doctrine issued by the Army/Marine Corps, FM3-24.
- ²²⁸ See, for example, Hofstede, Geert H. (2001). *Culture's Consequences: Comparing values, behaviors, institutions and organizations across nations*.
- ²²⁹ Helms, M. H. and R. Stern (2001). "Exploring the factors that influence employees' perceptions of their organization's culture." *Journal of Management in Medicine*, Vol. 15, No. 6, 415-429.
- ²³⁰ The term counterculture refers to groups that have values and beliefs in opposition to the dominant group.
- ²³¹ Keyton, Joann (2010). *Communication and Organizational Culture: A Key to Understanding Work Experiences*. Thousand Oaks, CA: Sage.
- ²³² Boisnier, Alicia, and Jennifer A. Chatman (2003). *The Role of Subcultures in Agile Organizations*. In *Leading and Managing People in the Dynamic Organization* edited by Peterson, Randall, and Elizabeth Mannix. Mahwah, NJ: L. Erlbaum, 87-114.
- ²³³ Wilkins, Alan L. and William G. Ouchi (1983). "Efficient cultures: Exploring the relationship between culture and organizational performance." *Administrative Science Quarterly*, 28 (3), 468-481.
- ²³⁴ Martin, Joanne. "Organizational culture." *The Blackwell encyclopedic dictionary of organizational behavior 2* (2004).
- ²³⁵ Martin, Joanne, and Peter Frost (2011). "The Organizational Culture War Games" In Mary Godwyn and Jody Hoffer Gittell, *Sociology of Organizations: Structure and Relationships*, New York: Sage.
- ²³⁶ Boisnier and Chatman, *The Role of Subcultures in Agile Organizations*.
- ²³⁷ Turnley, J. G. (2008). *Retaining a Precarious Value as Special Operations Go Mainstream*, Hurlburt Field, FL: JSOU Press, 4.
- ²³⁸ U.S. Code Title 10, Subtitle A, Part 1, Chapter 6, section 167, Unified combatant command for special operations forces. See paragraph (b).
- ²³⁹ Feickert, A. (2013). *US Special Operations Forces (SOF): Background and Issues for Congress*. Library of Congress, Congressional Research Service.
- ²⁴⁰ See Turnley, *Retaining a Precarious Value*, for a description of this tension.
- ²⁴¹ *Ibid.*, 4.
- ²⁴² Weick, K. E., and R. E. Quinn (1999). "Organizational change and development." *Annual Review of Psychology*, 50(1), 361-386, 375.
- ²⁴³ Gould, Stephen Jay, and Niles Eldredge. "Punctuated equilibria: The tempo and mode of evolution reconsidered." *Paleobiology* (1977), 115-151.
- ²⁴⁴ <http://valor.defense.gov/DescriptionofAwards.aspx>; Tyson, Ann Scott, (2005). "Soldier Earns Silver Star for Her Role in Defeating Ambush." *Washington Post*, http://www.washingtonpost.com/wp-dyn/content/article/2005/06/16/AR2005061601551_pf.html.
- ²⁴⁵ Golembiewski, R. T., K. Billingsley, and S. Yeager (1976). "Measuring change and persistence in human affairs: Types of change generated by OD designs." *The Journal of Applied Behavioral Science*, 12(2), 133-157.
- ²⁴⁶ Audia, P. G., E. A. Locke, and K. G. Smith (2000). "The paradox of success: An archival and a laboratory study of strategic persistence following radical environmental change." *Academy of Management Journal*, 43(5), 837-853.
- ²⁴⁷ *Ibid.*, 837.
- ²⁴⁸ Christensen, C. (1997). *The Innovator's Dilemma: When new technologies cause great firms to fail*. Harvard Business Press.
- ²⁴⁹ Kotter and Heskett, *Corporate Culture and Performance*, 105.
- ²⁵⁰ *Ibid.*
- ²⁵¹ Armenakis, Achilles and Arthur G. Bedeian (1999). "Organizational Change: A Review of Theory and Research in the 1990s." *Journal of Management*, 293-315, 301.
- ²⁵² Burke, W. W. (2010). *Organization change: Theory and practice*. Thousand Oaks, CA: Sage.
- ²⁵³ McQuaid, K. (2007). "Race, Gender, and Space Exploration: A Chapter in the Social History of the Space Age." *Journal of American Studies*, 41(02), 405-434.
- ²⁵⁴ Testimony in front of a special subcommittee of the House Committee on Science and Astronautics, July 1962 in Weitekamp, *Right Stuff, Wrong Sex*, 151.
- ²⁵⁵ Bimm, J. (2012). *Psychology of Space Exploration: Contemporary Research in Historical Perspective*. Douglas A. Vakoch, Editor. (NASA History Series, SP-2011-4411.), 125.

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- ²⁵⁶ Ibid., 130.
- ²⁵⁷ Flashline Mars Arctic Research Station home page. <http://arctic.marssociety.org/home>.
- ²⁵⁸ Flashline Mars Arctic Research Station home page – research projects. <http://arctic.marssociety.org/home/research/projects>.
- ²⁵⁹ Bishop et al., “FMARS 2007,” 2. See also Binsted et al., “Human factors,” 994-1006.
- ²⁶⁰ Bishop et al., “FMARS 2007,” 5.
- ²⁶¹ Ibid., 7.
- ²⁶² Bishop, et al., “FMARS 2007,” 9; see also Binsted et al., “Human factors,” 999.
- ²⁶³ See, for example, Dion, K. L. (2004). “Interpersonal and group processes in long-term spaceflight crews: perspectives from social and organizational psychology.” *Aviation, Space, and Environmental Medicine*, 75 (Supplement 1), C36-C43; Kring, J. P., and M. A. Kaminski. (2013). “Gender Composition and Crew Cohesion During Long-Duration Space Missions.” *On Orbit and Beyond*.”; Psychological Perspectives on Human Spaceflight, 29, 123; McQuaid, “Race, Gender, and Space Exploration.”; “Giant leaps and forgotten steps: NASA and the performance of gender.” *The Sociological Review*, 57(s1), 146-163; Sandal et al., “Human challenges in polar and space environments.”; Leon, G. R., C. McNally, and Y. S. Ben-Porath (1989). “Personality characteristics, mood, and coping patterns in a successful North Pole expedition team.” *Journal of Research in Personality*, 23(2), 162-179.; Leon, G. R., and G. M. Sandal (2003). “Women and couples in isolated extreme environments: applications for long-duration missions.” *Acta Astronautica*, 53(4), 259-267; Leon, G. R. (2005). “Men and women in space.” *Aviation, Space, and Environmental Medicine*, 76 (Supplement 1), B84-B88; Rosnet, E., S. Jurion, G. Cazes, and C. Bachelard (2004). “Mixed-gender groups: coping strategies and factors of psychological adaptation in a polar environment.” *Aviation, Space, and Environmental Medicine*, 75 (Supplement 1), C10-C13.
- ²⁶⁴ Sandal et al., “Human challenges in polar and space environments,” 281-296, 286.
- ²⁶⁵ Rosnet et al., “Mixed-gender groups.”
- ²⁶⁶ Sandal, et al., “Human challenges in polar and space environments,” 296.
- ²⁶⁷ Kahn and Leon, “Group climate and individual functioning in an all-women Antarctic expedition team.”
- ²⁶⁸ Ibid., 43.
- ²⁶⁹ Email correspondence with Gloria Leon by the author of this study pointed me to what she believed were the significant articles.
- ²⁷⁰ Leon, “Men and women in space.”
- ²⁷¹ Dion, “Interpersonal and group processes in long-term spaceflight crews.”
- ²⁷² Bishop et al., “FMARS 2007,” 8.
- ²⁷³ Sherman and Chatman, “National Diversity Under Pressure,” 16-17.
- ²⁷⁴ Krakauer, J. (2011). *Into the Wild*. Pan Macmillan.
- ²⁷⁵ Sherman and Chatman, “National Diversity Under Pressure,” 17.
- ²⁷⁶ For a description of the decades-long relationship between climbers on Mt. Everest and the Sherpa community, see Ortner, S. B. (2001). *Life and Death on Mt. Everest: Sherpas and Himalayan mountaineering*. Princeton University Press.
- ²⁷⁷ Allison, M. T., J. L. Duda, and A. Beuter (1991). “Group dynamics in the Himalayas.” *International Review for the Sociology of Sport*, 26(3), 175-191.
- ²⁷⁸ Kramer and Drinkwater, “Women on Annapurna,” 8, 93-99.
- ²⁷⁹ See, for example, Petiet, C. A., Townes, B. D., Brooks, R. J., and J. H. Kramer (1988). “Neurobehavioral and psychosocial functioning of women exposed to high altitude in mountaineering.” *Perceptual and Motor Skills*, 67(2), 443-452.
- ²⁸⁰ Frohlick “The Hyper-Masculine Landscape of High-Altitude Mountaineering.”
- ²⁸¹ Ortner, *Life and Death*, Chapter 8.
- ²⁸² Moraldo, D. (2013). “Gender relations in French and British mountaineering. The lens of autobiographies of female mountaineers, from d’Angeville (1794-1871) to Destivelle (1960-).” *Journal of Alpine Research/Revue de géographie alpine*, (101-1). <http://rga.revues.org/2027>.
- ²⁸³ http://www.nytimes.com/2012/09/09/magazine/arlene-blums-crusade-against-household-toxins.html?pagewanted=all&_r=1&.
- ²⁸⁴ Ortner, *Life and Death*, 225.
- ²⁸⁵ Blum, A., and C. Walsh (1980). *Annapurna: A woman's place*. Sierra Club Books.
- ²⁸⁶ Ortner, *Life and Death*, 227.

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- ²⁸⁷ Huey, R. B., R. Salisbury, J. L. Wang, and M. Mao (2007). "Effects of age and gender on success and death of mountaineers on Mount Everest." *Biology letters*, 3(5). 498-500, 498.
- ²⁸⁸ Sherman and Chatman, "National Diversity Under Pressure," 22.
- ²⁸⁹ Huey et al., "Effect of age," 498.
- ²⁹⁰ Loomis, Molly (2005). "Going Manless." *American Alpine Journal*, 47(79), 98-115.
- ²⁹¹ *Ibid.*, 101.
- ²⁹² *Ibid.*
- ²⁹³ *Ibid.*, 102-103.
- ²⁹⁴ *Ibid.*, 106.
- ²⁹⁵ *Ibid.*, 107.
- ²⁹⁶ Arnot, Melissa. Accessed at <http://blog.eddiebauer.com/2013/05/15/melissa-arnot-o-breaking-the-high-altitude-ceiling/>.
- ²⁹⁷ Ortner, *Life and Death*, 162.
- ²⁹⁸ Eckel, C. C., and P. J. Grossman (2008). "Men, women and risk aversion: Experimental evidence." *Handbook of experimental economics results*, 1, 1061-1073, 1071.
- ²⁹⁹ Payne, J. W., J. R. Bettman, and E. J. Johnson, "Behavioral Decision Research: A Constructive Processing Perspective." *Annual Review of Psychology*, Vol.43, 87-131, 91.
- ³⁰⁰ This section is taken from Ben-Zur, H., and M. Zeidner. (1996). "Gender differences in coping reactions under community crisis and daily routine conditions." *Personality and Individual Differences*, 20(3), 331-340.
- ³⁰¹ Ben-Zur and Zeidner, "Gender differences," 338.
- ³⁰² *Ibid.*, 339.
- ³⁰³ Randazzo-Matsel, Annemarie, Jennifer Schulte, and Jennifer Yopp. *Assessing the Implications of Possible Changes to Women in Service Restrictions: Practices of Foreign Militaries and Other Organizations*, Center for Naval Analyses, July 2012, taken in its entirety from that study.
- ³⁰⁴ National Defense and the Canadian Armed Forces, *Background: Women in the Canadian Armed Forces*, accessed at <http://www.forces.gc.ca/en/news/article.page?doc=women-in-the-canadian-armed-forces/hie8w7rm> on 17 February 2014.
- ³⁰⁵ Interviews with Canadian Special Operations Regiment leadership on 18 November 2013 at Canadian Forces Base (CFB) in Petawawa, Canada.
- ³⁰⁶ Horn, Bernd (2013). *We Will find a Way: Understanding the Legacy of Canadian Special Operations Forces*, MacDill AFB, FL: JSOU Press.
- ³⁰⁷ *Ibid.* Note: DDMA is the Canadian Forces equivalent of U.S. Foreign Internal Defense (FID).
- ³⁰⁸ Who Dares Wins, International Special Forces Information accessed at <http://www.whodareswins.com/canadian-special-forces-joint-task-force-2-jtf2.html> on 17 February, and Interviews with Canadian Special Operations Regiment leadership on 18 November 2013 at Canadian Forces Base (CFB) in Petawawa, Canada.
- ³⁰⁹ The Federal Bureau of Investigation (FBI) website at <http://www.fbi.gov/>.
- ³¹⁰ *Ibid.*
- ³¹¹ Special Operations Activities from DOD Directive 5100.01, 21 December 2010, *Functions of the Department of Defense and Its Major Components*.
- ³¹² Lydon, Christopher, "On This Day," *New York Times, On the Web* accessed at <http://www.nytimes.com/learning/general/onthisday/bday/0101.html> on 12 November 2013.
- ³¹³ According to L. Patrick Gray, III, Acting Director memorandum, this was required by President Nixon's Executive Order 11478 dated August 9, 1969, relating to nondiscrimination and, at the time, the recently enacted Equal Employment Opportunity Act of 1972 signed into law by President Nixon on March 24, 1972.
- ³¹⁴ Department of Justice, Federal Bureau of Investigation, "Today's FBI: Facts and Figures, 2013-2014." Accessed at <http://www.fbi.gov/> on 23 September 2013. The FBI site or series that focuses on women in the FBI is at: http://www.fbi.gov/news/stories/2012/may/women-agents_051612.
- ³¹⁵ Mason, G. (2011) *A statistical analysis of smokejumper fitness criteria*, unpublished paper. Fort Wainwright, Alaska: Bureau of Land Management, April 20.
- ³¹⁶ Information paper, 55th Parachute Infantry Battalion, Center for Military History, U.S. Army, accessed at <http://www.history.army.mil/topics/afam/555PIB.htm> on 14 May 2014.
- ³¹⁷ http://news.nationalgeographic.com/news/2003/08/0808_030808_smokejumpers.html.
- ³¹⁸ <http://montanawomenshistory.org/work-fit-for-two-fisted-rangers-women-in-the-u-s-forest-service/#more-1391>.
- ³¹⁹ JSOU Smokejumper interviews.

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