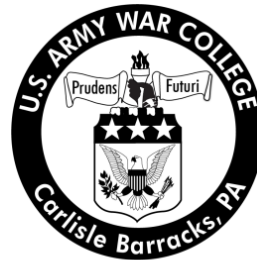


# Strategy Research Project International Fellow

## Leadership in a Culture of Fitness in the Chilean Army

by

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United States Army War College  
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USAWC STRATEGY RESEARCH PROJECT

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## **ABSTRACT**

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Members of a military profession, similar to elite athletes, must strive for and meet high physical standards to maintain their readiness to achieve success when called upon to prevail on the fields of battle or competition. However, while athletes may choose to maintain physical fitness and readiness depending on their next competition, the uncertainty and ambiguity of today's environment demands continual readiness by members of the military. A fitness mentality in any army has wide-ranging implications. In the Chilean Army, the fitness mentality, along with other competencies, allows it to fulfill its maxims of peace and war, "Dissuade" and "Win the War," respectively. In contrast, the lack of physical competence disrupts an army's ability to accomplish its unique mission of fighting wars, as well as creates waste of fiscal resources. In addition to an individual responsibility as soldiers, senior officers within the Chilean military are well positioned to set the tone, through their leadership, for instituting a fitness culture.





## LEADERSHIP IN A CULTURE OF FITNESS IN THE CHILEAN ARMY

Physical fitness is one of the core competencies for any military because the profession of arms requires members who are in good physical and mental readiness to meet its many demands. It derives from the unique role that pertains to any army, deter through strength but stand ready, if called upon, to fight its nation's wars. To successfully fight and win wars, the leaders who are the decision-makers must possess mental, emotional and physical readiness. The United States military's experience with protracted wars in Afghanistan and Iraq are good examples of the importance of maintaining a high level of stamina and endurance in mid-career and senior leaders. These leaders not only have had to maintain their professional competencies but also have had to sustain a high level of readiness in themselves and in the military forces they lead through periodic deployments. Throughout the history of warfare, leaders have had to maintain physical and mental readiness, both individually and organizationally, to successfully overcome the overwhelming and demanding environment and fast-paced timing of events. The physical and mental demands in war that leaders must confront, if not attended to appropriately, become a major contributor to what Clausewitz described as the "fog of war."

Both mid-career and senior officers face a demanding environment not only at war, but also during peace time. At the highest levels of the organization, leaders have to deal with challenging and grueling stressors which are distinctive and often the result of the Volatile, Uncertain, Complex, Ambiguous (VUCA) environment which especially affects senior leaders and their roles as decision- and policymakers. An important

consideration regarding the demands placed on leaders within the military organization concerns the *stage of life* of senior leaders and the physical and mental implications derived from their average age.<sup>1</sup>

While a great deal of progress has been made to promote a culture of fitness within the Chilean Army, a comprehensive policy in this regard is still essential. Leadership constitutes the backbone of any organizational success to implement this policy by taking the appropriate actions to materialize the environment for a culture of fitness. As decision and policymakers, senior Chilean Army leaders should set the tone to create a culture of fitness within the organization.

The potential benefits of a culture of fitness are to enhance leadership by promoting and encouraging more leaders with increased competency in understanding the importance of increasing the health and well-being of their subordinates. These leaders will also understand how to manage fiscal resources more efficiently, for example allocating funds in health care based upon a fitness policy which aims to improve the individual well-being and readiness of the military. This would also help to improve the professional standards of leaders and subordinates in order to fulfill the mission of the Chilean Army at peace and war in a more efficient and effective way.

Therefore, the intent of the following analysis is to propose and validate the need for a culture of fitness within the Chilean Army. The analysis will focus on the following factors:

- The importance of physical fitness from the professional standpoint in the Chilean Army;

- The main implications of a culture of fitness from the perspective of leaders serving as good stewards of professional and managerial resources;
- The role of enlightened leadership to implement a culture of fitness;
- The context and recommendations for the transition from its current status to a culture of fitness in the Chilean Army, with special consideration to selected societal and cultural factors that may affect the organizational end-state of this proposal;
- Reinforcing the position that establishing a culture of fitness is a responsibility of both the leaders and the organization; and,
- Providing recommendations for how to set the conditions for success in transitioning the Chilean Army to a culture of fitness.

### A Profession that Demands a Culture of Fitness

The Chilean Army, as any other army, is a people-oriented organization<sup>2</sup> because its major and most valuable asset is its people.<sup>3</sup> The need to emphasize the human dimension stems in large part from what soldiers are facing in today's conflicts.<sup>4</sup> It is increasingly recognized that the human dimension of war involves the “body, mind and spirit”<sup>5</sup> of military personnel. Understanding this whole human dimension of war is essential for leaders in order to promote the physical and mental readiness of their soldiers.

A physical fitness policy fosters a professional environment. This will allow the military, during peacetime, to have its soldiers focus on improving their readiness by enhancing the physical and mental stamina and resilience required to sustain their combat effectiveness and efficiency in war. This same “strengthening” of the warrior

ethos, approaches readiness from a more holistic human dimension, and also will eventually contribute by reducing the risk for post-traumatic stress disorder rates in military members.<sup>6</sup>

In the case of the Chilean Army, leaders must take into account the physical and mental demands posed by geography. The east border of the principal Theater of Operations comprises more than 500 miles with an average altitude of 12,000 ft. AMSL (Above Medium Sea Level) in the so-called, “High Plateau” region. Two reinforced regiments, with more than 800 soldiers each, live and train in these high altitude conditions every day.<sup>7</sup> This implies the need for leaders to consider both physiological and mental readiness factors that may either positively or negatively affect soldiers’ stamina and endurance and the overall combat efficiency in these settings.<sup>8</sup>

Furthermore, another section of this Theater of Operation is located in the Atacama Desert, considered the world's second driest region in the world, after Antarctica.<sup>9</sup> The conditions of dryness, high altitude and temperature oscillations place high demands on soldiers, especially on their physical and mental qualities. A culture of fitness in the Chilean Army would help improve not only the efficiency for military readiness in combat operations but also enhance the human dimension of war for soldiers during peacetime.

Almost any action during war will require from soldiers a sound mental ability coupled with physical and emotional toughness. A clear example of this was the invasion of Iraq in 2003, during Operation “Iraqi Freedom.” In just twenty-one days of main combat operations, the coalition troops achieved their military objectives in Baghdad, keeping up an overwhelming rhythm of combat seldom seen before. In order

to sustain that tempo, soldiers had to maintain a high level of mental, physical and emotional endurance and a high level of combat stress that was produced by an uneasy sense of uncertainty that is characteristic of war. The efficiency of the units on the battlefield was undoubtedly in part determined by the high level of physical and mental readiness instilled in these soldiers as they prepared for combat. It is during times of peace that we must strive for a culture of fitness in order to maintain our readiness for war.

### Implications of a Culture of Fitness in the Chilean Army

A culture of fitness within the Chilean Army has implications in regard to the high professional standards that the organization has to pursue according to its historical tradition and its prestige within Chilean society. It also has implications for maintaining efficient management of available fiscal resources.

Regarding the professional standards, the Chilean Army, as a public institution, is praised by Chilean society for its efficiency and effectiveness in accomplishing its constitutional role. The Chilean Army has earned a high level of approval in the Chilean society based on its efficiency, its high level of professionalism and proficiency, and for its leadership.<sup>10</sup> This recognition by Chilean society is reflected in a profound sense of pride which is fueled by the recognition that the Chilean Army is a highly-effective institution. By striving for high professional standards, the Chilean Army feeds the sentiment of pride and necessity within Chilean society, which the Army proudly serves.<sup>11</sup> Consequently, one of the actions that is recommended as a way to improve the Chilean Army's professional standards and status is the advocacy for establishing a culture of fitness.

From the resource management perspective, a culture of fitness also implies more efficiency and cost-effectiveness to help reduce institutional health care expenses. In the civilian arena, studies have demonstrated the correlation between individual fitness and corporate profitability.<sup>12</sup> Patrick Rishe, Economics Professor at the George Herbert Walker School of Business at Webster University in St. Louis, Missouri, argues that corporations who focus on developing healthier workers achieve greater energy levels and higher self-esteem in employees which reduces their absenteeism (e.g., sick days), reduces health care costs, and increases worker productivity. This results in a more “ready” and “profitable” work force. The important message to take from these results is that when programs focus on a “culture of fitness” to encourage and promote healthier corporate employees, the result is greater productivity and profitability. In a similar manner, the Chilean Army could enhance its productivity (i.e., its combat capability and capacity) with less cost by augmenting the level of energy and self-esteem of the soldiers which in turn is reflected in the stamina and esprit de corps of the units. To achieve this, leaders must understand their important roles and responsibilities in helping to bring about an increased emphasis on a culture of fitness.

### Leadership in a Culture of Fitness

Leadership in the military profession, especially at the strategic level, implies three important domains: cognitive, in order to apply intellect to deal with complex problems; emotional, because militaries lead people; and certainly, physical, because war is in essence a fight of will and physical strength.

Mid-career and senior leaders are responsible for training their units and also for making the decisions that affect the overall organization. In demonstrating respect for their units, leaders strive to reach the highest level of combat efficiency on the battlefield

and also must develop planning and capabilities to prepare soldiers to deal with the challenging environments any military campaign may require.<sup>13</sup> It is an axiom of command and leadership that the decision of any particular leader will impact on all the subordinate echelons of command. As such, the decision taken at the battalion level will impact within the companies, platoons and squads. But a culture of fitness mindset also must energize and inspire the entire organization and not depend on or result just from the actions of any particular leader. In other words, it must exist as more than a mindset of just a few effective leaders. Indeed, all leaders must place a similar emphasis on building and maintaining a culture of fitness for the strategy to succeed.

Leaders achieve this culture of fitness mindset in part by motivating their subordinates to lead by their presence,<sup>14</sup> thereby inspiring within their subordinates a motivation and desire to lead in the same way. By achieving this emphasis with leaders, a virtuous cycle is created and propagated from within the organization. The ability of leaders to affect this organizational change is in part explained by certain motivational theories which relate the individual performance with the degree of motivation. According to the Expectancy Theory,<sup>15</sup> an individual's performance is viewed as a function of motivation and role perception, among others factors. Theoretically, motivation energizes, directs and sustains behavior and consequently, improves individual performance.

A leader's motivation energizes behavior by attracting subordinates to change their interpretation or determination of the origin of an attitude, thereby activating the individual to then choose a behavior according to what they perceive as a better option. In a culture of fitness, soldiers who do not have the proclivity for a healthy way of living

are stimulated by what they see and perceive from the organization in general and specifically, from their leaders. Likewise, motivation directs and sustains behavior among competing behavioral alternatives with different individual levels of persistence. In a culture of fitness, the degree of motivation transmitted by the leader influences the decision of the subordinates to change their attitude and even to excel in the cultural change. Consequently, a leader's behavior can serve to enhance subordinate empowerment, satisfaction, work unit and subordinate effectiveness.<sup>16</sup>

In the same context, leaders must consider that there are some variables that affect the soldier's "expectancy perception."<sup>17</sup> First, "self-efficacy" is the soldier's conviction about their personal ability to effectively accomplish any mission successfully. Successful leaders build on this perception within the unit by promoting the self-esteem of the soldiers which at the same time enhances esprit de corps of the unit. Secondly, "goal difficulty," also is related to the expectancy perception and occurs when soldiers perceive that the goal set by the leader is beyond their ability to successfully accomplish, resulting in a lowering of both motivation and expectancy. In contrast, if the leader sets achievable goals, the commitment of the unit to the mission is high. Finally, "control perception" in the subordinate's mind is essential to improve or change behavior. Soldiers must perceive that they have a certain degree of control over the expected outcome relative to the effort made. An example of this occurs within the Chilean Army when a reward is given to a unit once they have reached a pre-determined level of physical proficiency in the Annual Physical Test. Soldiers must know that if they reach what is expected from them, they will be gratified. If not, their motivation may wane regarding their continued preparation in order to meet the



standard set by the leader or the organization. By setting conditions and rewards, leaders enhance motivation and create a sense of personal control for the expected outcome in the subordinates.

From another perspective, the *Path-Goal Theory of Leadership* describes how leaders encourage and support their subordinates in achieving the goals set by the organization; clarifying the path that they should take to make it clear and easy.<sup>18</sup> According to this theory, leaders illuminate the way; remove obstacles that are stopping them from accomplishing the mission; and present incentives along the route. This theory is also based upon motivational factors of the subordinates that affect the outcome of the task. It emphasizes situational-leadership, by which leaders adapt their style of command in order to obtain a higher level of efficiency from their subordinates.

The *Path-Goal Theory of Leadership* is flexible and adaptable to any style of leadership, based upon the situation of the organization and the personal preference of the leader. Its components are leadership style, the subordinate preference and task structure. The leadership styles are classified as follows:

*Supportive Leadership.* This style places special consideration on the needs of the subordinates. Concern for their welfare and a desire to create a friendly working environment is crucial. By doing so, the subordinate's self-esteem and motivation are increased. This attitude is more effective when the work is stressful or hazardous, like in a combat environment.

*Directive Leadership.* The leader gives appropriate guidance along the way. Through this guidance, the leader sets the conditions for a determined task with the resulting minimization of ambiguity. Rewards are important. This may be used in low

echelons of command when subordinates are inexperienced. By doing so, the commander increases the sense of security in accomplishing the task.

*Participative Leadership.* This leadership style has leader decisions that are based on consultation with other leaders and subordinates in order to find the best solution or most efficient way to accomplish the task. Information regarding the resolution is shared within the organization.

*Achievement-oriented Leadership.* This style is appropriate for military leaders because they challenge subordinates with high professional standards. A high performance from subordinates is expected and they are encouraged to meet these standards based upon the example of the leader. Confidence is important in the unit's ability.

A subordinate's preference is driven by their perception of the style of leadership under which they operate. For example, a highly proficient subordinate could perceive supportive or directive leadership as de-motivating, while other subordinates may require more support or guidance. The degree of satisfaction and level of motivation are directly related to the leadership style employed.

Regarding the task structure, the leader analyzes and formulates the task in a comprehensible and achievable way to the subordinates. The leader sets the conditions of the environment by removing obstacles so as to increase confidence and willingness to comply within their subordinates.

This theory is highly suitable to implement a cultural change because it combines the current situation of the organization, the adaptation of the leadership style and the expectations of the subordinates. As a main consideration, this theory places more

responsibility on the leader and less on the subordinates, making them more dependent on leadership.<sup>19</sup>

### A Culture of Fitness in the Chilean Army

Ten years ago the Chilean Army began a “transforming and modernization process.” Since then, considerable resources have been invested in defense.<sup>20</sup> The big objectives of this process are based upon an institution adapted to the national and international reality with an efficient Army ready to accomplish its missions in three facets: deterrence, international cooperation and conflict.<sup>21</sup>

The deterrence role of the Chilean Army is especially important based upon historical<sup>22</sup> and geo-strategic considerations. From an exclusively military perspective, the Chilean relationship with its neighboring countries is based upon a position of “deterrence” due to historical territorial controversies. This role has been effective because the Chilean Army is perceived not only as a well-equipped, but also as a well-trained and ready force. Therefore, the physical readiness and fitness of the soldiers is paramount to deter as a well-trained force.

The process of “modernization of the organization” implies something else apart from encompassing new technology into the organization. It entails an adaptation of the minds to operate modern systems and weapons. For this reason, central elements of the process of transformation are denoted as, among other things, the “cultural change” that is required to reinforce some military competencies.<sup>23</sup>

A culture of fitness can also enhance the distinctive military and leader competencies of the Army. It serves to promote esprit de corps within units at every echelon and builds team-work. This is because at war, units face innumerable physical challenges and soldiers often depend on each others’ physical and mental strength for

survival. War is a collective endeavor, and so an army's effectiveness in war is a function of the synergy created by the sum of all the physical and mental efforts of every soldier. And more importantly, it empowers the leadership of commanders who must "lead by presence,"<sup>24</sup> which also helps to build a trustworthy relationship within the unit.

### Societal Factors that Influence a Culture of Fitness in the Chilean Army

There are some important societal factors to take into account that affect the Chilean society, and consequently the transition to a culture of fitness in a public organization like the Chilean Army. These include the consumption of tobacco, remaining sedentary (i.e., a lack of regular physical activity), and obesity.

Chile is one of the countries with the highest rate of consumption of tobacco in the world.<sup>25</sup> Approximately 45% of the men and the 40% of the women in Chile are smokers. This index is almost double that found in the United States of America and significantly higher compared to the observed world index of smokers, which is currently estimated at 30%.<sup>26</sup> Presently in Chile, the consumption of tobacco is identified as one of the seven main causes of premature death in the Chilean population.<sup>27</sup> Furthermore, the risk of developing cardiovascular and cancer illnesses due to the consumption of tobacco is estimated at between 20% and 30%.<sup>28</sup> It also is estimated that the consumption of tobacco results in additional medical and loss of productivity costs for Chile of about \$200 million (US) per year.<sup>29</sup> The trend is likely to continue since in Chile more than 40% of the adolescents between 12 and 18 years of age consume tobacco.<sup>30</sup> If we consider that people who join the Army are mostly between eighteen and twenty-three years-old, this societal phenomenon (and its associated adverse risk to health status) is being inherited by the Chilean Army, among other public organizations. The

48.8% (15,600 soldiers) of the total soldiers of the Army are Conscript Soldiers or Professional Soldiers, who enroll in the institution at this range of age (i.e., 18-23 years).

Regarding the increasing numbers of the population becoming more sedentary, which has been considered “a plague of the contemporary age,”<sup>31</sup> research at the Social Observatory of the University Alberto Hurtado in Chile, revealed that 87% of Chileans older than 18 do not regularly engage in any physical activity, nor do they participate in any sport. Out of the 87% of those reported as sedentary, 74% are totally inactive.<sup>32</sup> The primary behaviors observed in Chilean society related to this disturbing indicator are the excessive use of motor vehicles instead of riding bicycles or walking, too many hours spent sitting at a desk at work, too many hours in front of the TV or the computer, and an increasing inclination for junk food.<sup>33</sup>

It is well known that obesity rates are often linked to being sedentary. In fact, Chile has experienced an exploding rate of obesity. According to the indicators released by the Chilean Health Ministry, 62% of the Chilean population is rated as overweight or obese. Even more concerning is that almost 22% of young students and 25% of adults are obese.<sup>34</sup>

For this reason a culture of fitness within the Chilean Army will contribute to helping reduce these alarming indicators that affect not only the military organization and its ability to find young, healthy recruits, but just as importantly, the Chilean society in general.

Another factor to take into account is that the city of Santiago, where most of the senior officers of the Chilean Army work, is one of the most polluted cities of the world. In fact, Santiago presents similar rates of air pollution as do other major cities such as

Mexico City, Mexico and Sao Paulo, Brazil.<sup>35</sup> High levels of air pollution in Santiago frequently exceed the rates suggested by the World Health Organization.<sup>36</sup> A comprehensive fitness policy in the Chilean Army should comprehensively address all the issues that affect the quality of life of soldiers and ultimately their effectiveness and efficiency in combat operations.

#### A Culture of Fitness: An Organizational Responsibility

To achieve a culture of fitness within the Chilean Army, measures and actions must be taken to encourage individuals to assume the responsibility to explore options and take charge of their health and well being.<sup>37</sup> Actions at the organizational level also are important. Culture is always a collective phenomenon because it is shared by people who live in the same social environment.<sup>38</sup> Therefore, a culture of fitness requires a collective stimulus in this regard. Any group of people can be motivated to behave in a certain way as a response to a determined stimulus. From this perspective, people are inclined toward a mental and physical fitness attitude almost unconsciously because of the atmosphere that helps to create a focus on fitness.

Part of that focus is determined by what individuals view as important. Geert and Gert Jan Hofstede in their book *Culture and Organizations: Software of the Mind*, argue that the behavior of people comes from three levels of mental programming:<sup>39</sup>

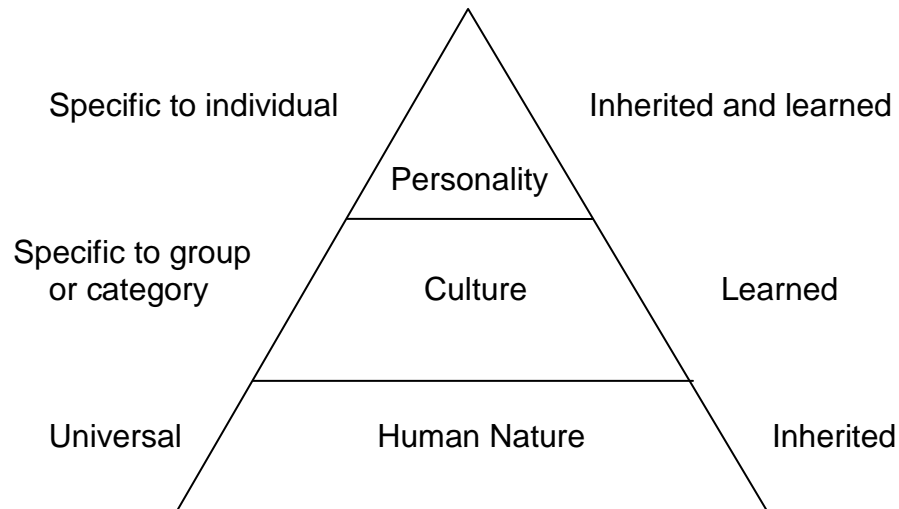


Figure 1: Levels of Mental Programming<sup>40</sup>

Human nature (base of the pyramid) is what all human beings have in common. It is inherited within one's genes. However, our human nature is modifiable by the culture (center of the pyramid). In the personality level (top of the pyramid), each soldier acts according to their "mental programming" which represents the way of using patterns of thinking, feeling and acting acquired mainly during one's childhood and developmental years.

In the personality level, individuals modify their conduct that is influenced principally by their own experiences. Patterns are inherited, but also learned, from interactions within the environment as one encounters and adapts to challenges. This suggests that any organizational emphasis or change, particularly communicated and reinforced by leaders, could influence young soldiers' behavior. This is especially likely in the lowest echelons of command because at this stage of a soldier's life, personality is still susceptible to change by learning from, and adapting to, the environment. The authors of this theory argue that "although the variety of people's mind is enormous, there are common interests that can serve as a basis for mutual understanding."<sup>41</sup>

When this understanding at the individual level is amplified at the organizational level, every soldier perceives and interprets the stimulus of the organization in the same way; patterns of behavior then become more collective in nature.

For this reason, leaders of squad, platoon and company levels have the most opportunities to modify the conduct of young soldiers, most of whom as adolescents are more receptive to imitating behaviors of their leaders. Considering that young soldiers, with different ranks, such as Sub-Lieutenants, Corporals, Conscript Soldiers and Professional Soldiers in the Chilean Army constitute the largest mass of the organization, the accountability and stewardship of leaders is crucial to move forward in achieving the aim to establish a culture of fitness.<sup>42</sup> From the same perspective, professional military education, such as academies for Officers and Non-Commissioned Officers, must also have a prime role in this regard, reinforcing the linkage between leadership and a culture of fitness in our future commanders and leaders of the units and organizations.

In the second level of the pyramid, culture is essentially learned from the environment and embodies a collective learning process. From this perspective, culture “is the collective programming of the mind that distinguishes the members of one group or category.”<sup>43</sup>

Culture in this level is represented by the values that distinguish the organization. Importantly, military culture is based upon a set of values that allow it to accomplish its unique role; such as pride, commitment and esprit de corps. In this level of the mental programming is where the Army sets the conditions to establish collective conduct patterns of change toward a culture of fitness. For example, this would include the



establishment of appropriate facilities to improve personnel physical fitness, rigorous physical standards to meet, and holistic health programs to improve physical and mental resilience of soldiers during post-deployment periods, as well as other related activities.

Since culture at this level is learned, not inherited, it is the environment which makes it possible for individuals to behave in a determined way. For example, in the Chilean Army, there exist several military subcultures that are characterized by their physical toughness such as Commandos, Mountaineers, and Tactical Scuba Divers, among others. Each new soldier who joins any of these subcultures is assimilated by the culture and becomes part of it by learning and assimilating these subcultural values.

This level of mental programming is the most important because it comprises the whole organization, along with the subcultures. Physical fitness at this level represents, for the Chilean Army, a collective value for what is required and who is responsible to promote and achieve a more consistently applied culture of fitness.

### Culture, Actions, and Leaders

Having explained that bringing about the required cultural changes with regard to enhancing physical fitness in the Chilean Army is a leadership responsibility within the culture and organization, it is important to understand the relationship between the elements that compose the culture so that the actions taken by leaders are correctly oriented to bring about the desired change. Edgar H. Schein, a professor and theorist in organizational culture, developed a model to explain the relationship between the basic elements of the culture, artifacts, norms and values, and assumptions. According to his model (Figure 2), these three layers are defined as follows:

*Artifacts.* They represent the first level of the culture. They are behavioral manifestations which can be recognized by people within the organization and by people who are not part of the culture. Examples of artifacts with regard to establishing a culture of fitness would include soldiers who voluntarily engage in physical readiness training every morning and when soldiers prefer a healthy diet.

*Norms and Values.* Norms and values represent the second level of the culture. Unlike artifacts, norms and values are not typically observed.<sup>44</sup> They can be defined and are more conscious than assumptions. They are written and unwritten codes of conduct that soldiers perform according to what is expected from them. In the Army, they normally stem from the leadership, doctrine, history and tradition. They are supported and nurtured by the underlying assumptions.<sup>45</sup> Examples of these may include the strategy and goals set by the leader to materialize a culture of fitness such as a rigorous schedule of physical training in the unit, periodic evaluations of physical proficiency, and other approaches.

*Assumptions.* Assumptions reflect the shared values within the Army. The assumptions associated with the shared values are often ill-defined, and oftentimes are not especially visible to the members of the culture.<sup>46</sup> If norms and values are not associated with assumptions, soldiers experience frustration, lack of morale or decreases in efficiency.<sup>47</sup> For instance, if the battalion commander is not physically competent to lead the unit, his subordinates who strive for achieving a high standard in this regard may feel frustrated because their value of physical fitness is not correlated with the assumption that their commander represents that same value. In a similar manner, in this case the norm of a rigorous schedule of physical training would create

frustration in the soldiers because it is not supported by a connected assumption (e.g., that leaders are also fit). From the opposite perspective, if the leader is highly competent and conveys a clear message about the importance of maintaining good physical fitness, not only with his words but also through his actions and appearance, he is unconsciously validating this assumption in the mind of his subordinates. This results in subordinates internalizing his example and turning it into a value.

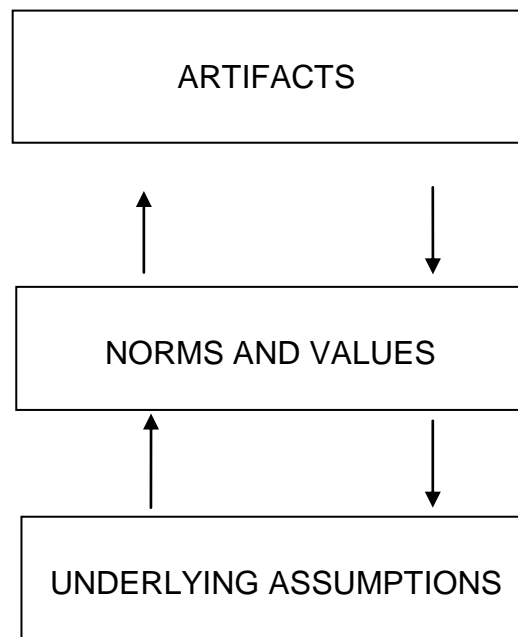


Figure 2. Relationship Between Elements of Culture<sup>48</sup>

As Schein argues in his book: *Organizational Culture and Leadership*, culture is "a pattern of shared basic assumptions that the group learned as it solved its problems of external adaptation and internal integration, that has worked well enough to be considered valid and, therefore, to be taught to new members as the correct way to perceive, think, and feel in relation to those problems."<sup>49</sup> Consequently, if we want to adapt the organization to a culture of fitness, shared basic assumptions need validated

in order to transform these assumptions into values and norms within the culture. By adopting this model, leaders of the Chilean Army will understand the relationship between these cultural elements of the organization, and how to create the values related to fitness and health acting directly over the assumptions in the model.

### Proposals

The following proposals are focused on the implementation of a physical and mental “culture of fitness” program for mid-career and seniors officers in the Chilean Army, and are based upon the experience of the U.S. Army War College’s thirty year program designed and implemented by the Army Physical Fitness Research Institute (APFRI). The senior leaders of the U.S. Army expanded the APFRI mission to mid-career officers and senior enlisted leaders in 2007.

*Recommendations for the Implementation of a Culture of Fitness Program:  
Scope and Conditions.*

- A comprehensive, organizational approach requires the commitment of an interdisciplinary staff, both health and military, in order to establish a comprehensive program that meets the feasibility, acceptability, and suitability criteria for the projected areas of a culture of fitness.
- The program is recommended for implementation in the Chilean Army War Academy (ACAGUE) for officers with the ranks of Major and Lieutenant Colonel. For Colonels, it would be suitable and advisable to carry out the programmed health assessment prior to the designation of Regimental Command. This would serve to complement other criteria and considerations such as geographical location and special characteristics of the unit. In the

case of General officers, the program would also serve as a very important and useful method to sustain the wisdom and experience of senior leaders while reducing the risks associated with age and the responsibilities of senior leader duty.

- The assessment could complement the current psychological evaluation carried out at the Army War Academy and serve as an important addition to the leadership curriculum. The comprehensive assessment results could be considered a prerequisite for unit command designation within the Chilean Army.
- Mid-career and senior officers who are deployed to a Peacekeeping Mission area, especially those who command units, should be evaluated through this program.

*Program Objective and Structure.*

- The objective of the program is to improve the self-awareness of leaders with regard to their health and fitness conditions in order to empower leadership through the enhancement of their professional and operational readiness. Likewise, the program will help identify and minimize any vulnerabilities or risk factors in the health of mid-career and senior officers, offering them strategies to reduce, in the short and the long term, the risk of injury and/or adverse consequences due to a lack of physical stamina that results from protracted military activity.
- The program is divided in two phases. During the first phase, a health and physical fitness assessment is carried out with the aim to improve the self-

awareness and the understanding of the complex relationship of leadership, health and fitness within the profession of arms. In addition, leaders are advised with strategies to minimize a current high risk condition or to mitigate the risk of developing a short- and long-term illness as these relate to their readiness as soldiers and leaders. As risk factors are identified, each leader is referred to one of the leader development and education programs outlined below:

*Executive Health Program.* This program is oriented toward indicators of physiological resiliency and promotes making healthy lifestyle changes that are relevant to the sustainment of leaders within the profession of arms. These risk factors might include a high level of hypertension, glucose, cholesterol, tobacco use, etc., that could eventually impair a leader's readiness to respond to the demands of leadership.

*Executive Nutrition Program.* This program focuses on how leader nutrition improves or degrades a leader's stamina and mental alertness. The program offers nutritional guidance of relevance to leaders and may include dietary guidance, identification of individual high risk factors and recommended interventions to enhance performance and reduce any identified risk.

*Executive Fitness program.* This program provides individualized assessment, training, education, and coaching in the physical domain to improve physical fitness levels in individuals with low aerobic capacity, low strength, and elevated body fat percentage. It also recommends interventions to restore optimal physical performance in those with performance limiting injuries.

During the second educational phase, leaders receive personalized coaching to improve their readiness by reducing their identified risks and vulnerabilities that were found in the initial assessment. Majors and Lieutenant Colonels in the Army War Academy are recommended to complete a reevaluation prior to their graduation to assess their progress to assess and validate the expected improvement of readiness indicators that result from their participation in the program.

- The initial assessment of physiological resiliency, body composition and physical fitness would include the following.<sup>50</sup>

*Physiological Resiliency Indicators.*

*Heart Rate.* Resting heart rate is used as an indicator of the leader's level of cardio-respiratory fitness. That is, as aerobic fitness improves, resting heart rate will reduce since physically fit leaders' hearts are more efficient in delivering oxygen and nutrients to the working muscles during exercise or other physical activity.

*Blood Pressure.* This measure is important for leaders not only because of the risk posed to physical health and readiness, but also to a leader's mental readiness over time. Uncontrolled blood pressure not only impacts physical health, but also can impact on memory, reduce cognitive performance, and provide indirect indicators of one's ability to manage stress appropriately.

*Level of Glucose.* Glucose levels often provide an indication of how the leader is "fueling their system." For example, glucose levels above normal not only indicate a risk for diabetes, but for a leader the impact of high blood glucose may lead to cognitive decline and brain shrinkage.<sup>51</sup>

*Triglycerides.* These represent the most common form of fat that is taken from food and released into a leader's bloodstream. Elevated levels may indicate the leader is not exercising regularly, eating too many fatty foods, drinking too much alcohol too regularly, or have a medical problem or genetic pre-disposition for these high levels.

*Total Cholesterol.* Cholesterol is an important component in the structure of our cells but too much can increase our risk of medical conditions (e.g., heart disease, hypertension, etc.). Educating leaders about how regular exercise helps reduce one's total cholesterol level is key, and helps demonstrate the importance of a culture of fitness for total risk reduction.

*High Density Lipoproteins (HDL).* This is often referred to as the "good cholesterol" and higher levels are associated with protection from heart disease and cognitive decline as the leader ages.

*Low Density Lipoproteins (LDL).* The LDL is often referred to as the "bad cholesterol" which is associated with an increased risk of heart disease, hypertension, stroke, and cognitive decline as we age.

*Prostate Specific Antigen (PSA).* The PSA provides a measure of risk for prostate cancer which is the second leading cause of death by cancer for men in the world. Educating leaders about the interaction of diet, exercise, and changes in the PSA levels over time, are the objectives for this measure.

*Body Composition Risk Factors.*

*Percent Body Fat.* Percent body fat provides leaders important information about the ratio of lean muscle mass to body fat. When body fat begins to exceed 26%, a leader's appearance and/or "command presence" may suffer. In addition, carrying extra



body weight is equivalent to requiring a leader to carry an extra weight throughout the day, without a break. The physiological toll of that extra-demand is obvious.

*Weight.* Since weight will tend to increase as we age, a leader must take care to remain mindful of how their weight enhances or impairs their readiness.

*Body Mass Index (BMI).* The BMI provides a widely accepted indirect measure of body composition by looking at the ratio of body weight to height. BMI tends to have a high correlation with percent body fat.

*Air Displacement Plethysmography (BodPod®, percent body fat measurement).* The BodPod® body composition system provides a leader a very precise measure of percent body fat.

*Waist Circumference.* This provides an estimate of the amount of abdominal fat around the waist. Increased waist size is a strong predictor of an increased risk for heart disease, hypertension and an overall indication of less than optimal overall health and fitness.

*Physical Resiliency and Fitness.* An estimate of physical resiliency, strength, and cardio respiratory fitness is also needed and should include:

*Flexibility (e.g., sit-and-reach test).* As leaders approach their 30's, they are at increased risk to lose functional flexibility around their major joints. Unless addressed, the leader will experience functional losses that may reduce their command presence and/or impair their overall level of readiness.

*Strength (e.g., chest press, leg extension and leg flexion).* Physical strength has long been associated with physical readiness within the profession of arms. Consistent

strength training has multiple benefits for leaders such as weight control and reducing risk of injury.

*Maximal Aerobic Uptake and Aerobic Conditioning (e.g., estimated or maximal V02 Testing).* These measures assess the efficiency with which a leader's heart and lungs work together. This provides an indication of a leader's pattern of physical activity and indicates their physical readiness to engage in aerobically demanding activities (e.g., road marches, high altitude operations, etc.).

*General Considerations.* To ensure an overall level of understanding of the leader's physiological resiliency, other assessments and surveys are recommended to ensure a complete understanding of each leader's overall level of fitness. These should include surveys focused on nutrition, exercise activity (how often and what intensity level for the individual exercises), and Portion Distortion (what portion sizes does the individual consume during meals). In addition, each assessed measure should have an associated preventive measure for increased physiological resiliency (e.g., classes to reduce any identified risk factors). For example, they would include ways for increasing resiliency and managing stress and improving sleep quality (by screening for combat stress related symptoms such as depression, anxiety, anger, sleep issues, and combat stress itself).

In addition to the programs and parameters previously described, it is necessary to empower leaders' physical readiness and resiliency by implementing policies within the organization and taking appropriate actions to reinforce leadership in a culture of fitness:

- Maintain the current emphasis on physical readiness of the force, stressing the importance of the leadership competence in helping to establish a culture of fitness. Emphasize this approach with a policy that increases both the reward and penalty for leaders; holding them accountable and responsible not only for their own physical and mental condition, but also for those they lead in their units.
- Reinforce personal accountability and stewardship with regard to health care fiscal expenses. In addition to promoting and supporting physical fitness, the organization must make every individual responsible when medical care expenses are derived from a lack of accountability in maintaining a culture of fitness.
- Reinforce the institutional anti-drug program, complementing it with the promotion of a healthy lifestyle adoption through leadership emphasis in every echelon of command.
- Maintain the process of physical certification which has demonstrated effectiveness with improving physical readiness of individuals and units.
- Emphasize each leader's responsibility for the physical and mental resilience and readiness of soldiers deployed to UN missions during pre and post deployment, as well as the importance of a proper program for the entire units deployed.
- Reinforce the institutional policy of physical fitness with measures like restricting use of tobacco in military facilities and every enclosed and public space according to current Chilean legislation.

- Improve the conditions of units and headquarters with high environmental stress levels due to long daily working periods, and other stressors like transportation in big cities, highly polluted cities, etc. A proper assessment of these higher risk leaders is needed, along with improved access to physical training facilities and programs.
- Special consideration is needed for physical and mental readiness assessments in conjunction with deployment to garrisons with special conditions of isolation and/or geography. Isolated barracks located in the desert, in the mountains, or in the south of Chile, must have priority to implement a culture of fitness with the proper physical fitness facilities. In addition, for barracks situated over 6,000 ft. AMSL, such as the 24<sup>th</sup> Reinforced Regiment “Huamachuco,” the 1<sup>st</sup> Reinforced Regiment “Topater” and the Army Mountain School, a comprehensive program of physiological resiliency in readiness for altitude demands is recommended for implementation in order to support those soldiers in their daily physical training. In addition, special consideration is needed for those soldiers over 40 years-old, especially in relation to their cardiovascular activity and identification/reduction of risk factors.
- A top-down organizational policy to allocate funds to build physical fitness facilities and improve the current ones. As a result of the policy, all the units and main garrisons, such as Arica, Iquique, Antofagasta, Santiago, Concepcion, Valdivia, Coyhaique and Punta Arenas must have proper

physical facilities where all the soldiers and families can have access and the opportunity to help promote the culture of fitness.

- Promote healthy diet habits in clubs where bachelors and geographical bachelors live.
- Focus the culture of fitness on the family that supports the soldier by integrating each soldier's family into programs and activities related to physical fitness.

### Conclusion

The Chilean Army is always striving to maintain the highest professional standards of any military in the world. Even though the physical and mental resilience and readiness of commanders and subordinates has remained one of the top priorities of the organization, more is needed to help achieve a true culture of fitness. An important first step is the development and implementation of a comprehensive policy in order to improve the resiliency and readiness (and longevity) of our Chilean leaders. It is necessary to empower leadership within the whole organization by enhancing the physical and mental readiness of leaders at every echelon. To achieve this, the program should set as a priority the physical and mental readiness of mid-career and senior officers, since they are the policy and decision makers who will implement the policy within the organization.

A culture of fitness within the Chilean Army is possible and is needed; but it requires a change in the norms and values of every leader and subordinate who must be responsible for their own physical and mental readiness and proficiency. Besides individual accountability, the organization must set the conditions to change its norms

and values, and ensure these correlate with actions and lifestyles of soldiers and their families. The Chilean Army and its leaders very much deserve a culture of fitness. In the end, it benefits not only our soldiers and their families, but the greater Chilean society that will follow this healthier and more sustainable path to health and fitness.

## Endnotes

<sup>1</sup> The average age of senior officers in the Chilean Army according to the rank is 38 for Majors, 43 for Lieutenant Colonels, 48 for Colonels and 55 for Generals.

<sup>2</sup> General Robert W. Cone, "TRADOC," lecture, U.S. Army War College, Carlisle Barracks, PA, October, 2011.

<sup>3</sup> This statement does not imply that the Air Force and the Navy do not take care of their people like the Army does. This idea stems from two main factors: first, the number of people that comprise each institution. Most of the Armies are considerably bigger than Air Forces and Navies because of the role assigned to each one. Secondly, these last two branches have a high dependence on technology as well as the people to accomplish their mission.

<sup>4</sup> The United States Army Home Page, <http://www.army.mil/article/13197/human-dimension-defined-at-ausa/> "Human dimension defined at AUSA, TRADOC," Ms. Carrol Kim. (accessed November 10, 2011).

<sup>5</sup> United States Army, "My Hooah 4 health," Program. <http://hooah4health.com/overview/default.htm> (accessed October 18, 2011).

<sup>6</sup> Ms. Carrol Kim, "Human dimension defined at AUSA, TRADOC." October 9, 2008. <http://www.army.mil/article/13197/human-dimension-defined-at-ausa/> (accessed October 19, 2011).

<sup>7</sup> The 24<sup>th</sup> Reinforced Regiment Huamachuco is located in the city of Putre at 11,950 ft. AMSL; the 1<sup>st</sup> Reinforced Regiment Topater is located in the city Calama at 7,875 ft. AMSL.

<sup>8</sup> Some of the common symptoms that soldiers present at high altitude are mental fatigue; visual sensitivity reduction, especially at night; sleep alterations; and more seriously, cardiovascular and respiratory anomalies.

<sup>9</sup> Matt Rosemberg, About Geography. <http://geography.about.com/od/physicalgeography/a/atacama.htm> (accessed October 17, 2011).

<sup>10</sup> Andres Allamand, Chilean Minister of Defense, "Informacion y Defensa", April 29, 2011, <http://www.infodefensa.com/?noticia=el-ejercito-de-chile-inaugura-la-tercera-brigada-acorazada-en-el-cuartel-bicentenario> (accessed November 10, 2011).

<sup>11</sup> A clear example of the relationship between the Chilean Army and Chilean society is the statement of the former Chilean Commander in Chief, Army General Oscar Izurieta Ferrer, "The Chilean Army belongs to all the Chileans." The Chilean Army Home Page, [http://www.ejercito.cl/detalle\\_noticia.php?noticia=2962](http://www.ejercito.cl/detalle_noticia.php?noticia=2962) (accessed November 10, 2011).

<sup>12</sup> Patrick Rishe, "Enhancing Corporate Productivity," Community with Group Fitness Programs: The Reebok-CrossFit Paradigm, <http://www.forbes.com/sites/prishe/2011/10/22/enhancing-corporate-productivity-community-with-group-fitness-programs-the-reebok-crossfit-paradigm/> (accessed November 11, 2011).

<sup>13</sup> General Robert W. Cone, "TRADOC," lecture, U.S. Army War College, Carlisle Barracks, PA, October, 2011.

<sup>14</sup> Army Physical Fitness Research Institute (APFRI), Edition 8, June 2011, foreword.

<sup>15</sup> Richard W. Scholl, "Motivation: Expectancy Theory", Charles T. Schmidt, Jr. Labor Research Center, University of Rhode Island. [http://www.uri.edu/research/lrc/scholl/webnotes/Motivation\\_Expectancy.htm](http://www.uri.edu/research/lrc/scholl/webnotes/Motivation_Expectancy.htm) (accessed November 28, 2011).

<sup>16</sup> Robert J. House, "Path-goal theory of leadership: Lessons, legacy and a reformulated theory", <http://www.sciencedirect.com/science/article/pii/S1048984396900247> (accessed November 26, 2011).

<sup>17</sup> Ibid.

<sup>18</sup> Path-Goal Leadership Theory, Practical management, "Designing a better place to work", <http://www.practical-management.com/Leadership-Development/Path-Goal-Leadership.html> (accessed November 29, 2010).

<sup>19</sup> Ibid.

<sup>20</sup> United States Army, "My Hooah 4 health," Program. <http://hooah4health.com/overview/default.htm> (accessed November 30, 2011)

<sup>21</sup> The Chilean Army Home Page, <http://www.ejercito.cl/fuerza-terrestre.php> (accessed November 11, 2011).

<sup>22</sup> Historically, Chile has had to deal with Peruvian and Bolivian aspirations to recuperate the territories annexed by Chile as a result of the Pacific War in 1879. Due to this controversy, as can be expected, this stance has led to intermittent signs of animosity from both Peru and Bolivia.

<sup>23</sup> The Chilean Army Home Page, <http://www.ejercito.cl/fuerza-terrestre.php> (accessed November 11, 2011).

<sup>24</sup> In this regard, the Training and Doctrine Command of the United States Army defines the three main attributes of the leader which are tightly related to leader competencies: character, intellect and presence.

<sup>25</sup> Revista Medica de Chile, Vol. 134-6 Santiago, Jun 2006.  
[http://www.scielo.cl/scielo.php?pid=S0034-98872006000600008&script=sci\\_arttext](http://www.scielo.cl/scielo.php?pid=S0034-98872006000600008&script=sci_arttext) (accessed December 02, 2011).

<sup>26</sup> Consejo Nacional de Estupefacientes (CONACE), “El consumo de cigarrillos en Chile,” 1994-2004. Mayo 2004. [http://www.conacedrogas.cl/inicio/pdf/Consumo\\_cigarrillos\\_Chile\\_CONACEmayo2005.Pdf](http://www.conacedrogas.cl/inicio/pdf/Consumo_cigarrillos_Chile_CONACEmayo2005.Pdf) (accessed December 17, 2011).

<sup>27</sup> MINSAL, Departamento de estadísticas e información en salud “Mortalidad por 10 primeras causas en Chile.” [http://deis.minsal.cl/ev/mortalidad\\_ge-neral/causas/as.asp](http://deis.minsal.cl/ev/mortalidad_ge-neral/causas/as.asp) (accessed December 17, 2011).

<sup>28</sup> U.S. Preventive Services Task Force, “Counseling to Prevent Tobacco Use and Tobacco-Related Diseases: Recommendation Statement,” November 2003. Agency for Healthcare Research and Quality, Rockville, MD.  
<http://www.ahrq.gov/clinic/3rduspstf/tobaccoun/tobcounrs.htm> (accessed December 18, 2011).

<sup>29</sup> Consejo Nacional de Estupefacientes (CONACE), “Informe especial sobre tabaco.” Ministerio del Interior de Chile. Informativo CONACE. [http://www.conacedrogas.cl/inicio/noticias\\_2.php?id=1413](http://www.conacedrogas.cl/inicio/noticias_2.php?id=1413) January 2005. (accessed December 18, 2011).

<sup>30</sup> Universia, “Los peligros del cigarro en la juventud”, <http://noticias.universia.cl/ciencia-nn-tt/noticia/2006/02/07/334348/peligros-cigarro-juventud.html> (accessed December 03, 2011).

<sup>31</sup> Ibid.

<sup>32</sup> Estilos de Vida: Sedentarismo. <http://www.estilosdevida.cl/2007/09/01/sedentarismo/> (accessed December 12, 2011).

<sup>33</sup> Ibid.

<sup>34</sup> Global Post, “Combating Chile’s exploding obesity rate.” <http://www.globalpost.com/dispatch/chile/100527/obesity-fast-food> (accessed December 19, 2011).

<sup>35</sup> Environmental Health Perspective (EHP), “Assessing the health benefits of urban air pollution reductions associated with climate change mitigation (2000-2020): Santiago, São Paulo, México City, and New York City.” [www.airimpacts.org/documents/local/cifuentes.pdf](http://www.airimpacts.org/documents/local/cifuentes.pdf) (accessed December 20, 2011).

<sup>36</sup> TRED, Chile Air Pollution. Trade and Environment Database.  
<http://www1.american.edu/TED/chileair.htm> (accessed December 23, 2011).

<sup>37</sup> Army Physical Fitness Research Institute (APFRI), Edition 8, June 2011, introduction.

<sup>38</sup> Geert Hofstede and Gert Jan Hofstede, “Cultures and Organizations: Software of the Mind”, <http://westwood.wikispaces.com/file/view/Hofstede.pdf> (accessed December 01, 2011).

<sup>39</sup> According to the Hofstedes’ theory, every person carries within themselves patterns of thinking, feeling, and potential acting that were learned throughout their lifetime, especially



during childhood, because at that time a person is most susceptible to learn and assimilate. By analogy, minds act as computers when they are programmed.

<sup>40</sup> Ibid., 1.

<sup>41</sup> Geert Hofstede and Gert Jan Hofstede, "Cultures and Organizations: Software of the Mind", <http://westwood.wikispaces.com/file/view/Hofstede.pdf> (accessed December 01, 2011).

<sup>42</sup> In the Chilean Army, the average age of soldiers with the rank of "Professional Soldier" is 20 years-old; "Soldier Conscript," 18 years-old; officers at the Military Academy, 20; NCO's Academy, 21.

<sup>43</sup> Geert Hofstede and Gert Jan Hofstede, "Cultures and Organizations: Software of the Mind," <http://westwood.wikispaces.com/file/view/Hofstede.pdf> (accessed December 01, 2011).

<sup>44</sup> Stephen J. Gerras, Leonard Wong and Charles D. Allen, "Organizational Culture: Applying a Hybrid Model to the U.S. Army." (U.S. Army War College, Strategic Leadership, Selected Reading 2012), 87.

<sup>45</sup> Ibid.

<sup>46</sup> Business Mate. Org, "Great Business Resources, Edgar H. Schein's Model of Organizational Culture." <http://www.businessmate.org/Article.php?ArtikelId=36> (accessed December 23, 2011).

<sup>47</sup> Ibid.

<sup>48</sup> Ibid.

<sup>49</sup> Schein, E.H. (1992). *Organizational Culture and Leadership*: Jossey-Bass, page 12.

<sup>50</sup> Army Physical Fitness Research Institute (APFRI), Edition 8, June 2011, Introduction.

<sup>51</sup> Ibid., p. 15.

