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**KEEP CALM AND GAME ON:  
THE SPORT-MILITARY PARADIGM – WHY SPORT PROMOTES LEADERSHIP,  
MENTAL TOUGHNESS AND A WARRIOR CULTURE IN MILITARY UNITS**

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LEADERSHIP, MENTAL TOUGHNESS AND A WARRIOR CULTURE IN  
MILITARY UNITS**

By Major R. C. Townsend

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## ABSTRACT

This paper seeks to identify the similarities between fitness, sports, and military training. Prefaced by the historical significance of sport to the development of military forces, the paper then analyses current Canadian Armed Forces (CAF) leadership doctrine in order to draw out parallels between leadership characteristics learned through sport and those required for military service. The findings indicate that sports teams, coaches, and athletes echo many of the same principles outlined by the CAF.

The concept of mental toughness is explored using current professional sports data to discuss the value of rituals and habits in sport and their affect on performance. Stress is also incorporated into the discussion on mental toughness as the effects of stress on the soldier are unique to the military profession. Finally, the idea of encouraging a warrior culture in the military through sport is considered in the last chapter. The paper presents many similarities between sports teams, training, and military units and it is the author's hope that leaders will continue to emphasize the value of sport to train and develop soldiers.

## INTRODUCTION

Imagine the characteristics of a spring morning in any Canadian city. The air is crisp. The temperature hovers in the high single digits and a yellow-orange dawn looms in the distance. Line ups are forming at the Tim Horton's drive through as commuters awaken with the help of a large *double double*. Simultaneously – unnoticed by the drowsy commuters – an athlete clad in lightweight clothing and running shoes jogs along the sidewalk. As the runner continues along his morning route, he approaches someone jogging in the opposite direction. Consciously or subconsciously, both individuals acknowledge each other by making eye contact, raising one hand and uttering a polite greeting:

“Morning”.

Most readers of this paper who have undertaken a solitary morning run – for reasons of personal fitness or as part of a more elite training regime – will identify with the scenario described above. Why then, when the same runner approaches an individual dressed in an overcoat – but walking – only a short distance behind the first runner, does either party offer no greeting?

The answer to this question is complex and can be linked to many sociological, physiological, and psychological factors. Was the first greeting between the two runners simply a social convention between people who share a common interest? Did the athletes acknowledge each other in the spirit of athletic gamesmanship or competition? Are the runners motivated to interact based on mutual respect of the discipline to undertake a morning jog? A positive response to any of these questions is plausible. Whatever the reason for the greeting in the first instance, the fact remains that positive interaction will likely be present more often in a situation where both people are running, than when only one or neither individuals are running.

Now imagine that the same camaraderie displayed briefly by two strangers is nurtured within a group of like-minded individuals, working towards a common goal – such as in a military environment. It would not be a stretch to determine that on the surface, the characteristics exhibited in the brief and benevolent gesture between two runners provides a more germane foundation to build group camaraderie, esprit de corps and teamwork than the actions displayed between the athlete and the walker. It is the author's belief that physical fitness and sport is one of the most natural and useful tools for military organizations upon which to build and practice fundamental skills that are the basis for an effective armed force.

The following dissertation will examine how sport enhances leadership, culture, and mental toughness in a military context. Specifically, using sport psychology theory, professional sport data and anecdotes, and *Leadership in the Canadian Forces: Doctrine*, this paper will analyze the aspects of sport that can be leveraged in order to enhance military effectiveness.

The paper will be divided into four parts. First, it will study the historical aspect of sport and military training, exploring the convention of athletic competition as a consistent and enduring facet of training for a professional armed force. Second, important leadership characteristics will be identified that are extant in both military units and sports teams. Third, the concept of *mental toughness* will be examined to identify parallels and significant differences between team sports and military units. Finally, the last section will apply findings of the first sections and discuss unit cohesion and the concept of a warrior culture through sport.

## SPORT IS AN ENDURING TENET OF MILITARY TRAINING

*The battle of Waterloo was won on the playing fields of Eton*

- Arthur Wellesley, Duke of Wellington, circa 1852.

There have been a tremendous number of developments throughout the history of warfare. Information sharing<sup>1</sup>, tactical maturity, and improved technology<sup>2</sup> have enabled combat operations to progress from the spear and shield to remotely-piloted armed drones. Developments in diplomacy and politics have encouraged the creation of alliances that exist for the purpose of international security and human rights rather than the sole pursuit of territorial or economic interests.<sup>3</sup> Armed Forces, including the Canadian Armed Forces (CAF), have ongoing discussions regarding the fundamental composition of armed forces to be based on either conventional or counter insurgency (COIN) theory. Although the military domain will continue to evolve, one aspect of the military fabric that has remained consistent over time is the use of sport in military training.<sup>4</sup>

For over five millennia, physical fitness and sport have been integral to military learning. The Oxford dictionary defines *sport* as “an activity involving physical exertion and skill in which an individual or team competes against another or others for entertainment.” Due in large parts to its comparable qualities to combat, many traditional sports have been naturally intertwined with military training for the purpose of developing the appropriate mindset and physical condition of

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<sup>1</sup> The utilization of a radar network by the RAF in WWII to defeat the Luftwaffe is an example of information sharing and evolved C2 that created an operational advantage.

<sup>2</sup> Strategic bombing during the Kosovo air campaign where allies could operate aircraft beyond the range of Kosovo Air Defence proved to be a superior technology that allowed the allies to dominate the battle.

<sup>3</sup> Wikipedia, “United Nations,” accessed 16 December 2012, [http://en.wikipedia.org/wiki/United\\_Nations](http://en.wikipedia.org/wiki/United_Nations).

<sup>4</sup> Tony Mason and Eliza Riedi, *Sport and the Military: the British Armed Forces 1880-1960* (Cambridge: University Press, 2010), 1.



soldiers and officers.<sup>5</sup> This chapter will discuss the role of sport in training and warfare. In this section, historical accounts where sport was used as a training mechanism for combat forces will support the notion that the relevance of sport to warfare remains apposite notwithstanding significant evolutions in military tactics, techniques, and technology. The physical, psychological, and sociological factors that link physical activity and team sports to military effectiveness will be introduced, and will be expanded upon in subsequent chapters.

### **Historical Significance of Sport and Warfare**

*Serious sport has nothing to do with fair play. It is bound up with hatred, jealousy, boastfulness, disregard of all rules and sadistic pleasure in witnessing violence. In other words, it is war minus the shooting.*

- George Orwell

Today, sport is widely publicized, organized, and largely understood. This was not always the case. Ancient sports focused on useful physical skills of the time. While humans were sustaining life in a primitive existence, the ability to hunt and defend a territory or group was primordial. Archery, sprinting, and jumping were basic abilities that required practice in order for people to survive. To encourage proficiency in such skills, competitions were introduced as the catalyst for improvement.

Competitions could be undertaken between groups, individuals, or by oneself. Archery targeting practice, dated as early as 6000 BC,<sup>6</sup> is an example of solitary competition. Such training was directly related to the ability of a man to hunt and defend his interests with a bow and arrow. Granted, the sporting activities of individuals during this ancient time period were not

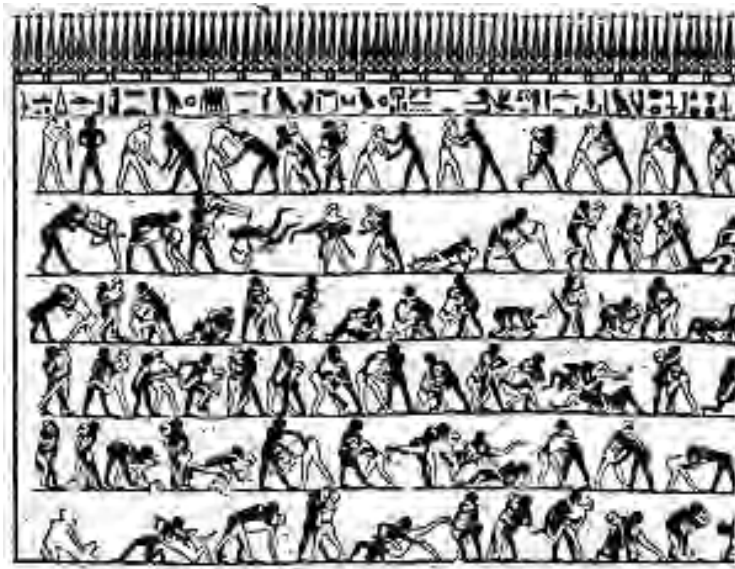
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<sup>5</sup> Department of National Defence, *Promoting and Sustaining a Healthy and Fit Force: A Holistic Model* (Ottawa: Chief Military Personnel, 2009), 1.

<sup>6</sup> Wikipedia, "History of Sport," accessed 20 December 2012, [http://en.wikipedia.org/wiki/History\\_of\\_sport](http://en.wikipedia.org/wiki/History_of_sport).

linked to formal military training; however, proficiency in archery would enable an individual to effectively perform functions that would be expected of a soldier in the following centuries.

Wrestling figures on the tombs of Amenemhet, Khnumhotep, Khety and Baqet III at Beni Hasan in ancient Egypt from approximately 2050-2000 BC illustrates the close link between sport and training for military operations.<sup>7</sup> On those tombs, images of wrestlers are depicted in rudimentary drawings above images of soldiers. The chronology of the drawings – traditionally read from top to bottom – supports the concept that wrestling (indicated in the top registers of the tombs) was essential training and contributed to success in combat (illustrated on the lower registers of the tombs).



**Figure 1: Wrestling scenes from the tomb of Khnumhotep and Niankhkhnum dating to around 2400 BC<sup>8</sup>**

*Source: Wikipedia, "History of Wrestling"*

<sup>7</sup> W. J. Hamblin, *Warfare in Ancient Near East* (New York: Taylor & Francis, 2006), 433.

<sup>8</sup> Wikipedia, "History of Wrestling," accessed 20 December 2012, [http://en.wikipedia.org/wiki/History\\_of\\_wrestling](http://en.wikipedia.org/wiki/History_of_wrestling).

In ancient Europe and China, the individual sport of martial arts became an indispensable component of military training.<sup>9</sup> Ancient Chinese martial arts incorporated the term *jiangwu*, which translates literally to “teach military matters”<sup>10</sup> and focused on both physical and mental military preparedness. Archery, spear fighting, and wrestling was practiced in the late fall and winter, when soldiers were not involved in farming activities. This type of individual exercise was easily implemented, economical, and convenient. Today, individual *bodyweight* training continues to prove relevant to the modern military environment.

The methodology of bodyweight training has a long and storied history, particularly in military settings. From the Spartans to the Romans to the Navy SEALs, bodyweight only training has been a consistent component of the methods of nearly every military organization from antiquity to the present.<sup>11</sup>

In addition to individual training, team sports have long been organized – at least in part – to provide economical and relevant training to units involved in combat. One of the earliest documented team sports, lacrosse, originated in Canada circa 1100 BC. The game itself had many different purposes that ranged from toughening young warriors for battle to settling inter-tribal disputes to spiritual healing.

... sometimes the sick man himself will have dreamed that he will die unless the whole countryside organized lacrosse matches to be played for his health. And no matter how little they may believe him, you will see them in a beautiful field, village contending against village, as to who will play lacrosse the better. And betting against one another beaver robes and porcelain collars, so as to excite greater interest.<sup>12</sup>

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<sup>9</sup> As early as 480 BC, and later influenced by Sun Tzu, martial arts had emerged as a training tool for opposing states in Asia.

<sup>10</sup> Thomas A. Green and Joseph R. Svinth, *Martial Arts of the World: An Encyclopedia of History and Innovation*, (Santa Barbara: ABC-CLIO, 2010), 92.

<sup>11</sup> John Romaniello, “Your Body is All You Need: The World’s Oldest Training Method (and a 1% Workout),” last modified 20 July 2012, <http://www.schwarzenegger.com/fitness/post/your-body-is-all-you-need-the-worlds-oldest-training-method-and-a-1-workout>.

<sup>12</sup> Thomas Vennum, *American Indian Lacrosse: Little Brother of War*, (Baltimore: The Johns Hopkins University Press, 1994), 13.

Lacrosse games that served to prepare young men for battle often involved hundreds of men. The fields were simply flat pieces of land between tribes and could stretch for many kilometers. The native Iroquois sport has continued to enjoy popularity in Canada over 3000 years later.

The sport of hurling is a similar *war-like game*,<sup>14</sup> native to Ireland, and pre-dates both Christianity and the recorded history of the country.<sup>15</sup> Fueling the notion that sport is intrinsically tied to warfare, the Statute of Kilkenny forbade hurling in the 13th century “... due to excessive violence, stating further that the English settlers of the Pale would be better served to practice archery and fencing in order to repel the attacks of the Gaelic Clans.”<sup>16</sup> As team sports developed in the ensuing centuries, it was found that the mentality of sports teams so closely mimicked that of military units that, during the “first conscriptions of World War I, whole British football teams would go to war together, banded in the same regiment.”<sup>17</sup>

When military forces modernized near the end of the nineteenth century, team and individual sports competitions evolved in concert. Football, rugby and cricket leagues, as well as athletics and boxing contests were arranged for officers, soldiers, and civilians. Such detailed planning encouraged discipline,<sup>18</sup> promoted regimental pride<sup>19</sup>, and facilitated the growth of *esprit de corps*<sup>20</sup> through the creation of healthy rivalries.

Training for sports competitions provided an outlet by which soldiers could spend time that would otherwise be difficult to fill when operations were not ongoing.<sup>21</sup> Military teams in

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<sup>14</sup> Amy Hackney Blackwell and Ryan Hackney, *The Myths, Legends and Lore of Ireland*, (Avon: Adams Media, 2011), 129.

<sup>15</sup> *Ibid.*, 129.

<sup>16</sup> Wikipedia. “Hurling.” accessed 6 January 2013. <http://en.wikipedia.org/wiki/Hurling>

<sup>17</sup> Leo Braudy, *From Chivalry to Terrorism: War and the Changing Nature of Masculinity*, (New York: Alfred A. Knopf, 2003), 342.

<sup>18</sup> Tony Mason and Eliza Riedi, *Sport and the Military: the British Armed Forces 1880-1960* (Cambridge: University Press, 2010), 5.

<sup>19</sup> *Ibid.*, 17.

<sup>20</sup> *Ibid.*, 49.

<sup>21</sup> *Ibid.*, 7.

the late 19<sup>th</sup> and early 20<sup>th</sup> century, who had significant leisure time to devote to training, quickly became the elite athletes of the sporting community. In the Royal Canadian Air Force alone, representative teams have won the Grey Cup (1942, 1943) in football and Olympic gold in ice hockey (1948). Other national military forces accomplished similar feats. Notably, the British Army's excellence in football, rugby, and boxing in the late 19<sup>th</sup> century encouraged development of those sports and increased spectator attendance significantly.

Critics of the value of sport in society argue that in the process of achieving *self-improvement* and *social control* through competition, societies risk teaching “unquestionable obedience ... ideological conformity, nationalism, (and) militarism”<sup>22</sup> to the population. Of course, for military purposes, such traits fit rationally within the established culture. Nonetheless, several international events in the past century have blurred the line between pure athletic competitions and a “surrogate for ideological and military superiority”<sup>23</sup>.

The Berlin Olympics (also known as the *Nazi Olympics*) in 1936 represented a German athletic program designed to display Aryan superiority, a thriving German culture, and the strength of the military. The image of US track and field star Jesse Owens atop the podium beside a saluting German athlete illustrates the vivid contrast between ideologies at those games.

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<sup>22</sup> Peter Donnelly, "From War without Weapons to Sport for Development and Peace: The Janus-Face of Sport," *The SAIS Review of International Affairs* 31, no. 1 (2011): 66-67.

<sup>23</sup> *Ibid.*, 68.



**Figure 2: Jesse Owens saluting the American flag after being awarded a gold medal in 1936.<sup>24</sup>**

*Source: AP/Time Magazine.*

Anti-Soviet riots resulted after the World Hockey Final in 1969 when Czechoslovakia defeated Russia just a year after Russia had invaded Prague. Even Canada has a history of fighting international battles through sport. The *Summit Series* between Canada and the USSR in 1972 stimulated sentiments of nationalism in both countries at the height of the Cold War. The hockey series was as much a political statement against communism as it was a source of national pride for Canadian hockey fans. Even though sport has often been the backdrop for discussion of uncomfortable or aggressive ideologies, it remains an infinitely preferable activity to warfare.<sup>25</sup>

### **Enduring Utility of Sport in Warfare**

*Midshipmen and cadets remain stronger and more aggressive than their male counterparts at civilian schools. They eagerly play sports such as rugby, boxing, karate, lacrosse, and football. They drive fast cars, usually sports cars. They play*

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<sup>24</sup> Hodges, Miles M. "The Rise of Hitler." Photo credited to AP/Wide World *Time* - 75 Years, p. 42. Last updated 2011. [http://www.kingsacademy.com/mhodes/03\\_The-World-since-1900/06\\_Dictatorship/06b\\_Rise-of-Hitler-2.htm](http://www.kingsacademy.com/mhodes/03_The-World-since-1900/06_Dictatorship/06b_Rise-of-Hitler-2.htm)

<sup>25</sup> Peter Donnelly, "From War without Weapons to Sport for Development and Peace: The Janus-Face of Sport," *The SAIS Review of International Affairs* 31, no. 1 (2011): 68.

*hard. They drink hard. They are physical, often abusive among each other. They are not trying to prove their manhood: they are celebrating their masculinity. They are competitive, often vulgar, and tough, and every citizen who may someday send a friend or relative into war should rejoice, because combat is competitive, vulgar, and tough, and they will be leading men in combat.*

- James H. Webb, Former Secretary of the US Navy

According to Leo Braudy, ancient warfare relied on several stalwart physical and mental traits.<sup>26</sup> Physical strength was critical to battle the enemy in close proximity when the military technology of the day was not available and a learned psyche to achieve a dominant *masculine identity* were the two critical areas that ancient militaries nurtured in order to win victory in war. Although technological and social evolutions have rightfully seen an increase in the number of female soldiers, the need for physical competence and a virile, conquering mentality endures.

Sport training provides military units the opportunity to nurture what academics such as Thomas Hobbes would state is a natural tendency of humans and animals to pursue power and dominance.<sup>27</sup> Anthropological studies suggest that the humans have been consistent throughout history in the quest to achieve influence, authority, and victory..Since warfare was traditionally male-dominated, institutions have looked to leverage those activities which could amplify the desire of soldiers to join together in combat. By the late 1880's, it was formally identified that “personal fitness, team sports, and patriotism formed a virtually unquestionable triad of male definition.”<sup>28</sup> Notwithstanding the chauvinist tone of the previous statement, it implies that sports and physical activity, combined with ideological influences are instrumental to creating a dominant mindset – regardless of gender. It can be expected that the aspirators for power – especially within an armed force – will continue to utilize training methods such as sport and

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<sup>26</sup> Leo Braudy, *From Chivalry to Terrorism: War and the Changing Nature of Masculinity*, (New York: Alfred A. Knopf, 2003), 341.

<sup>27</sup> Robert Arp, *1001 Ideas That Changed the Way We Think*, (New York, Atria Books, 2013), 365.

<sup>28</sup> Leo Braudy, *From Chivalry to Terrorism: War and the Changing Nature of Masculinity*, (New York: Alfred A. Knopf, 2003), 341.

physical fitness to strengthen a mentality of camaraderie, perseverance, and teamwork within a combat unit.

Over the past fifty years, the recommended exercises and method of delivery have evolved as a result of scientific studies; however the requirement for adequate physical capability remains important. In fact, as technology continues to evolve, physical conditioning remains fundamental for optimal use of new equipment. A CF-118 fighter airplane has a flight envelope that can exceed 9 G and maneuver at sustained 7.5 G. The capabilities of the airframe itself exceed the physical capabilities of the human operator. Even though G-suit technology can increase the physical stamina of the pilot, additional training such as anaerobic and aerobic exercises tailored specifically for fighter pilot operations can enhance the physical performance of the pilot during close air operations.<sup>29</sup>

Some soviet forces in Afghanistan in January 1987 “made the mistake of relegating the physical fitness of some units to a *secondary discipline*”<sup>30</sup> due to dependence on advanced technology and the use of motorized sub-units. When the commander that held this belief became extremely fatigued and unable to direct subordinates after an unexpected climb, the mission became compromised,<sup>31</sup> proving that physical fitness remained critical to success on operations.

Today, occupational specific training is being emphasized so that military members can train to increase their effectiveness during specific operational tasks. The new ‘Fitness for Operational Requirements of CAF Employment’ (FORCE) test was developed considering six

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<sup>29</sup> K. P. Kovach, "Physical and Pharmaceutical Enhancement of Fighter Pilots" (Command and Staff Course New Horizons Paper, Canadian Forces College, 1996), 2.

<sup>30</sup> Department of National Defence, *Fighting Fit* (Ottawa: Chief Intelligence and Security, 1989), 3.

<sup>31</sup> *Ibid*, 3.



common military tasks essential to ensure universality of service for all CAF members.<sup>32</sup>

Adjusting the physical testing of CAF personnel from traditional activities such as push-ups and sit-ups to sand bag lifts represents a significant shift in the mindset of CAF members and fitness evaluators as additional resources are required for testing and non-traditional fitness exercises are imposed upon CAF members. Yet, while traditional exercises are being replaced by the FORCE test, the underlying need for a common fitness standard remains – it is simply being refined to apply to the demands of the current work environment. Such a minor change in the CAF training philosophy may seem inconsequential, however, it provides evidence that although techniques change and evolve over time, the fundamental reason for physical training and sport remains constant.

Occupation specific training has been in existence for many years. Traditional martial arts concepts remain common in modern military training. *Point shooting* trains muscle memory using the principles of *iaido*<sup>33</sup>. Most modern armies (including the Canadian Army) incorporate hand-to-hand and knife fighting into their training<sup>34</sup> and the British Army has applied bayonet fighting techniques to operations as recently as 2004 in Iraq.<sup>35</sup> The variety of sports and infinite variations in training that can be applied to the physical domain of the military provides a beneficial and flexible tool for leadership to use in the development of soldiers.

Sport has also been recognized as an effective tool for training for the psychological challenges of warfare. While it has been described earlier in this paper as way to achieve a virile

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<sup>32</sup> Canadian Forces Morale and Wellness Services, "About the FORCE Program," last modified 19 August 2013, <https://www.cfmws.com/en/AboutUs/PSP/DFIT/Fitness/FORCEprogram/Pages/About-the-FORCE-Program.aspx>.

<sup>33</sup> Iaido is a modern Japanese martial art associated with the smooth, controlled movements of drawing the sword from its scabbard or saya, striking or cutting an opponent, removing blood from the blade, and then replacing the sword in the scabbard. (Source: <http://en.wikipedia.org/wiki/Iaido>)

<sup>34</sup> Wikipedia, "Martial Arts," accessed 15 December 2012, [http://en.wikipedia.org/wiki/Martial\\_arts](http://en.wikipedia.org/wiki/Martial_arts)

<sup>35</sup> Sean Rayment, "British battalion 'attacked every day for six weeks'," *The Daily Telegraph*, 12 June 2004. Accessed on 11 December 2012. <http://www.telegraph.co.uk/news/worldnews/middleeast/iraq/1464411/British-battalion-attacked-every-day-for-six-weeks.html>.

identity, there is noteworthy evidence that sport can be used to promote restraint and sophistication of primal desires and as a method to control violence. In 1894, the re-establishment of the Olympic Games was envisioned partly as a truce to stop war and an idealistic competition to encourage a *politically purified masculinity*.<sup>36</sup> In South Africa (SA), sporting events played a significant role in the elimination of apartheid and limiting military action. The International Olympic Committee (IOC) and nations sympathetic to the cause of Black African countries forced SA to reassess its mixed race athletic policy and consequently examine the problem of racism in the country.<sup>37</sup> The pressure of the international sporting community proved to be a catalyst for political and social change in this regard. Famously, the Rugby World Cup final in 1995 saw the SA Springboks face off against the New Zealand All Blacks one year after apartheid had been dismantled in SA. The actions of the victorious Springboks and political leader Nelson Mandela surrounding that game had an immeasurable effect on the attitude of the nation.<sup>38</sup> The sentiment of the SA people was changed through the soft power of sport without having to resort to military power.

The underlying dedication, strategy, and spirit of competition present in Olympic contests and amateur sport are characteristics which are present in many military leaders. Such ideals are emphasized in modern leadership training and formalized in doctrine for “the quality of leadership, more than any other single factor, determines the success or failure of an organization.”<sup>39</sup> Leadership is nurtured through experience, education, and particularly when

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<sup>36</sup> Leo Braudy, *From Chivalry to Terrorism: War and the Changing Nature of Masculinity*, (New York: Alfred A. Knopf, 2003), 347.

<sup>37</sup> Wallace Irwin. *The Politics of International Sport: Games of Power*. Headline Series 286 (New York: Foreign Policy Association, 1987), 45.

<sup>38</sup> Levermore, 77.

<sup>39</sup> Fred Fiedler & Martin Chemers, *Improving Leadership Effectiveness*, accessed 10 January 2013. <http://www.nwlink.com/~donclark/leader/leadqot.html>.

required to respond to severe challenges<sup>40</sup> such as armed combat. For military personnel, sport offers refinement of these leadership skills “with all of the pure moves of combat but little of the fear, chaos, and death.”<sup>41</sup>

From antiquity to present day, sport has been proven useful to train soldiers in both the physical and mental capacities of warfare. In today’s technological battlefield, it is possible to overlook the value of muscular strength and endurance given extremely powerful weapons and equipment. Smartly, military leaders have remained committed to physical training as technology evolved over the past several thousand years, and will likely continue to train soldiers using sports, albeit using different methods than in the past. It should be remembered, that physical training through sport allows leaders to manipulate those activities which apply most directly to the expected tasks, all the while stimulating teamwork, reliability, and leadership skills that remain critical for mission success. Military organizations simply cannot afford to limit the development of these abilities to only operations and exercises. They need sport.

### **Physical, Psychological, and Sociological Benefit of Sport**

*Winning means you're willing to go longer, work harder, and give more than anyone else.*

- Vince Lombardi

Sport is generally measured by the number of wins and losses. Anyone who has played sports will likely admit that winning is generally more fun – both results can have some value. In fact, even before the result of a sporting contest is determined, simple participation in sport has likely already proved beneficial in the physical, mental, and social realms. Many Canadian minor sport associations downplay the importance of winning and losing in order to encourage

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<sup>40</sup> Roger Jackson (Leadership and Sports, RMC Young Memorial Lecture, Kingston, Canada, January 30, 1990).

<sup>41</sup> Leo Braudy, *From Chivalry to Terrorism: War and the Changing Nature of Masculinity*, (New York: Alfred A. Knopf, 2003), 343.

participation, sportsmanship, and fundamental skill development.<sup>42</sup> Both the Ontario Minor Soccer Association and the Nova Scotia Minor Hockey Association have eliminated scoring for younger children. The idea is part of a long-term plan for each organization that hopes to keep children interested in sports and develop healthy and active lifestyle habits.

Within a relatively consistent sample group such as the Canadian Armed Forces, research has proven that the average physical fitness level of the male sports population is higher than that of the average CF male population.<sup>43</sup> A study by the Defence and Civil Institute of Environmental Medicine researched the relative value of sports played by Canadian Forces personnel in 1982. The study looked at physical aspects such as muscular strength, endurance, flexibility, and aerobic fitness to evaluate which sport provides the greatest physical fitness benefit. Those playing Team sports such as volleyball, hockey, and broomball exhibited consistently high levels of physical fitness across all testing parameters.<sup>44</sup> The dynamic nature of team sport, as opposed to sports which emphasize unique or technical training such as marathon running, necessitate a more equitable development of strength, aerobic fitness, flexibility, and endurance.<sup>45</sup> Therefore, in addition to occupational specific training, a balanced fitness training regime is favorable for soldiers who are asked to perform a multitude of challenging and varied tasks on operations. Health-wise, military personnel who are fit will be less likely to suffer from ailments such as heart disease, stroke, colon cancer, type II diabetes, and osteoporosis.<sup>46</sup> There is also a correlation between improved aerobic fitness and reduced levels of depression.<sup>47</sup>

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<sup>42</sup> Dave Dormer, "No-score Proposal for Minor Soccer Shot Down by Parents, Coaches" Calgary Sun, 1 April 2013.

<sup>43</sup> Department of National Defence, *The Relative Fitness Value of Sports Played by Canadian Forces Personnel* (Downsview: Defence and Civil Institute of Environmental Medicine, 1982), 9.

<sup>44</sup> *Ibid.*, 26.

<sup>45</sup> Eric Plaster, *The 100 Year Lifestyle Workout*, (Gilford: Globe Pequot Press, 2010), 32.

<sup>46</sup> Michael Thomas Taylor, "Physical Education at the Royal Military College of Canada: A Case for Academic Accreditation" (Master's Thesis, Queen's University, Kingston, 2001), 44.

<sup>47</sup> *Ibid.*, 45.

The data linking physical activity and fitness to morbidity and mortality are convincing. The presence of cardiovascular disease, diabetes, obesity, hypertension, colon cancer, depression, and psychological functioning have all been shown to be partially caused by sedentary living.<sup>48</sup>

At a corporate level, a physically and mentally healthy workforce equates to decreased absenteeism and increased productivity.<sup>49</sup> Many businesses take significant steps to encourage fitness within the workforce in the interest of their personnel, but also to increase their bottom line.<sup>50</sup>

Multiple studies have been conducted over the past twenty years in an attempt to quantify the value of a physically fit workforce and what it means to a business. Some studies have found a return on investment of \$2 to \$6 for every \$1 spent on fitness programs in the workplace.<sup>51</sup> It should be noted, however, that such findings have generally been observed at the initiation of a fitness program and such returns may vary over time depending on factors such as the commitment of individuals to the training regime. Regularly scheduled physical fitness time for military personnel as part of their standard duties could eliminate the degree of individual commitment that has potential to negatively affect the business community. While it is more difficult to assess the return on investment for a healthy military unit, many deployed operations keep statistics on personnel illness. Those units that have enforced vigorous hygiene policies such as mandatory hand-wash stations, have experienced less illness.<sup>52</sup> It can be reasonably argued that decreased domestic absenteeism due to illness would translate to fewer military flight

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<sup>48</sup> Steven G. Aldana, Nicolaas P. Pronk, "Health Promotion Programs, Modifiable Health Risks and Employee Absenteeism," *Journal of Occupational and Environmental Medicine*, (January 2001), <http://www.aoem.org/Page3Column.aspx?PageID=7351&id=1370>.

<sup>49</sup> Nicholas A. DiNubile, "Exercise and the Bottom Line," *The Physician and Sportsmedicine* 27, no. 2 (February 1999): <http://www.mnrphoto.com/timehealth/exercisebottomline.pdf>.

<sup>50</sup> Ibid.

<sup>51</sup> Jorge Osorio, "The Highest Corporate Fitness Program and Medical Absenteeism in a Mining Company," *Self Funding Magazine.com*, 20 Dec 2012, <http://www.selffundingmagazine.com/article/the-highest-corporate-fitness-program-and-medical-absenteeism-in-a-mining-company.html>.

<sup>52</sup> Information based on personal experience in Kuwait, El Salvador, Afghanistan and confirmed through guest lecturers at CFC Toronto 2013.

cancellations, increased maintenance manpower, less chance of illness present in confined and densely populated spaces such as a ship, and therefore an increase in overall productivity.

The physical benefits to team sport incorporate a number of conscious and subconscious psychological benefits. Practice, repetition, training, and support in a structured environment reduces stress. Athletes rehearse the sequence of events leading up to a race thousands of times in order to avoid stress at the starting line. The establishment of an athletic pre-performance routine “facilitates experiences of familiarity, order, consistency, and control.”<sup>53</sup> A soldier requires a similar amount of experience and familiarity in order to control emotions and thoughts when action is called for in battle. Participation in sports can encourage the habit of a pre-performance routine for the soldier. While not all combat training techniques can be mimicked through sport, basic activities such as performing warm-up exercises before running are relevant for every soldier. At a physical minimum, participation in sport can help to subconsciously condition individuals to properly prepare their body before undertaking a common physical task in combat, such as running.

Research from sports psychologists suggests that stress can be reduced if members of a given small group have similar personae.<sup>54</sup> A rudimentary way to determine (or establish) common personality traits or interests is to promote small group participation in sport. Military groups at the section level and higher have utilized this concept for centuries or more. In addition to reducing stress, the development of common interests among a unit or regimental

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<sup>53</sup> Nicholas T. Gallucci, *Sport Psychology: Performance Enhancement, Performance Inhibition, Individuals, and Teams*, 2<sup>nd</sup> Ed., (New York: Psychology Press, 2014), 117.

<sup>54</sup> R. J. Hillier, "Reducing the Effects of Stress on Soldiers in Operations: A Concept for the Canadian Army" (Command and Staff Course New Horizons Paper, Canadian Forces College, 1989), 23.

sized group through sporting activities and aerobic exercise has been proven to increase self-esteem, self-confidence, and morale.<sup>55</sup>

From an institutional perspective, teams who win are popular; and popularity is generally good for morale. High morale strengthens the victorious attitude of a team and can improve recruiting,<sup>56</sup> the fan base, and the economic situation of the organization. Military groups are no different in their desire for quality recruits, increased public support, and increased funding or enhanced quality of life. The extensive history of propaganda during wartime – which stimulated recruiting, public support, and additional funds – imitate the marketing and fundamental desires of current professional sports teams. In Canada, one needs to look no further than the Toronto Maple Leafs hockey team, who are perennially heroes or villains in the eyes of Torontonians – depending on their standing in the NHL that year. When the team is doing well, they are widely supported, however, when their record is poor, the comments from their fan base can centre around the high cost of tickets rather than the quality of the game on the ice.

The sociological benefits of sport and military training are significant. Throughout militaries of industrialized nations in the latter half of the 19th century, sports and athletic games were emphasized as “both physical and moral preparation for war,” but without the gruesome realities of actual battle.<sup>57</sup> Spectators could therefore engage in sporting events and offer support and encouragement to soldier-athletes without consequence to think about war. Military sport was, (and remains) one avenue for the military organization to present itself to the public in a positive light. Essentially, sporting events were free advertising for the military institution. It

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<sup>55</sup> Michael Thomas Taylor, “Physical Education at the Royal Military College of Canada: A Case for Academic Accreditation” (Master's Thesis, Queen's University, Kingston, 2001), 46.

<sup>56</sup> Patrick Mignon, “Le sport et les valeurs des sociétés démocratiques,” *Sport et Société*, no. 320 (mai - juin 2004): 50.

<sup>57</sup> Leo Braudy, *From Chivalry to Terrorism: War and the Changing Nature of Masculinity*, (New York: Alfred A. Knopf, 2003), 339.

became natural, then, for citizens to remain supportive of popular combat forces when real war broke out in 1914 and again in 1939. The resolute support for allied forces during WWI and WWII in Europe saw people donating their pots and pans to the government in order to recycle the metal for airplane parts. Such a commitment might be less obvious if the population did not have a personal connection to those involved in the war effort – either through blood, involvement in sports, or effective advertisement and marketing of the allied ‘team’ on posters and billboards.

Aside from obvious physical benefits and social influences that are associated with team sports, sport provides the opportunity for individuals to develop the leadership, psychological maturity, and motivation to accomplish an objective. To illustrate this point, consider the following anecdote paraphrased from a speech by Dr. Roger Jackson.<sup>58</sup>

Upon completion of the Canadian Pacific Railway, many Canadians wished to travel across the country. The first organized group to do so, financially supported by the local community of New Westminster, was a lacrosse team. The team was determined to defeat the larger clubs in Toronto and Montreal. The year was 1885.<sup>59</sup>

As indicated in the statement above, one of the principle benefits of sport to military training is teamwork and leadership development. Such an ominous task as travelling across Canada in 1885 was partly enabled through sound leadership, goal-setting, and teamwork nurtured through sport.

At the most basic level, officers are responsible for the health and welfare of the soldiers serving under them. Knowledge of physical fitness and experience in sport has long-enabled officers to promote a healthy lifestyle for their subordinates. Athletic games offer individuals an

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<sup>58</sup> Dr. Jackson (OC, PhD) was an Olympic Gold medal rower (1964), the former Director of Sport Canada, Dean of the faculty of Physical Education at the University of Calgary, and member of the 1988 Winter Olympic Games Organizing Committee.

<sup>59</sup> Roger Jackson (Leadership and Sports, RMC Young Memorial Lecture, Kingston, Canada, January 30, 1990).



opportunity to *lead by example* in a setting unconcerned with combat.<sup>60</sup> This provides valuable education for the officers and enhances group cohesion at all rank levels. The specific characteristics of military leadership that can be enhanced through sport will be discussed in the next chapter.

### **LEADERSHIP CHARACTERISTICS OF SPORT AND MILITARY GROUPS**

*Leaders aren't born, they're made. They are made just like anything else, through hard work. That is the price we'll have to pay to achieve that goal or any goal.*

- Vince Lombardi

Definitions of leadership vary. In general, the variations exist in order to reflect intricacies of specific industries or environments; however, it is generally established that leadership is the “act of motivating people through non-coercive means.”<sup>61</sup> Leaders and managers can motivate workers using intrinsic or extrinsic methods<sup>62</sup> in order to achieve their organizational objectives. As already presented, such actions can contribute directly to productivity and a healthy organizational culture, which is in turn reflected in increased worker motivation. It is therefore incumbent upon any organization, regardless of size or industry, to strive for effective leadership if they are to be successful. Military forces and sports teams are no exception.

In fact, commitment to a military unit requires that every individual has an understanding of basic leadership principles and characteristics. Formalized leadership education for new recruits and on-going professional leadership training for junior non-commissioned members and

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<sup>60</sup> Serge Tremblay, "Is the Canadian Forces Physical Fitness Program Preparing Military Personnel Adequately to Fulfill Duties Anywhere in the World?" (Command and Staff Course New Horizons Paper, Canadian Forces College, 1993), 22.

<sup>61</sup> Francis Amagoh, "Leadership Development and Leadership Effectiveness," *Management Decision* 47, no. 6 (2009.): 989.

<sup>62</sup> J. B. Patnaik, "Organizational Culture: The Key to Effective Leadership and Work Motivation," *Social Science International* 27, no. 1 (2011): 91.

officers is offered to every member of the Canadian Forces at the Canadian Forces Leadership and Recruit School (CFLRS) in St-Jean-sur-Richelieu. The Basic Military Qualification (BMQ), Basic Officer Military Qualification (BOMQ), and Primary Leadership Qualification (PLQ) are examples of the standard leadership training courses that CF members complete. At any moment, a soldier in a military unit can be expected to lead subordinates in the accomplishment of an objective and in the next moment, the same soldier will be expected to follow his superior on a different task. This is why leadership training is important for every soldier in a military organization.

Ongoing education in the leadership domain has also been deemed essential to “sustain long-term effective leadership practices and high organizational performance.”<sup>63</sup> Most businesses, civil administrations, sports groups, and departments subscribe to the same philosophy of leadership development through the use of formal or informal programs. The difference, however, is that a large number of organizations outside of military and sports groups limit the availability of such important programs to select individuals.

Barriers to the availability of leadership development programs in business include economic considerations and self-protection of higher level managers. A survey of 300 leaders in the manufacturing industry in the UK revealed that over half of the respondents experienced significant barriers to their leadership development.<sup>64</sup> Chief among the barriers were organizational politics, failure of individual planning, and lack of time to conduct training. Similar barriers as well as technical, financial, or educational requirements can restrict potential candidates from leadership positions in the civil service, religious groups, and politics. Failure to

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<sup>63</sup> Francis Amagoh, "Leadership Development and Leadership Effectiveness," *Management Decision* 47, no. 6 (2009.): 990.

<sup>64</sup> Roger Gill, *Theory and Practice of Leadership*, (London: SAGE Publications, 2006), 277.

progress within an organization when an individual feels it is merited can result in dissent and competition within the organization while individuals strive to fulfill their professional desires.

Sports teams are an example of an organizational group that encourages leadership development for all members. The logic is strikingly similar to the military mindset in that at some point in a contest, each player will be in a position to lead the team. During the course of a game, it is likely that every player will have the puck on his stick, pass the ball, make a tackle, or direct the play while all of the other players will be functioning in support of his actions. Immediately after such a play, the player will find himself in support of a teammate, receiving instruction from a coach, or motivating and inspiring colleagues through verbal or physical engagements. In this context, the players and coaches involved in team sport are not directly motivated by financial gain, spirituality, or other outside influences. They have been motivated by leaders at various levels to accomplish a goal through competition that is important within their organizational culture. Sports teams and military units at the platoon level share many common traits. The nature of competition, emphasis on physical fitness, reliance on teamwork to accomplish a shared goal, and even the size of the unit are common threads that bind these two fields.<sup>65</sup>

Although somewhat intuitive to the soldier athlete, participation and success in sport can be the antecedent to success in a military environment. The components of a competitive sporting event mimic combat in every physical and strategic sense – save for the controls surrounding the contest and the relative seriousness of the decisions being made. In particular, team sport requires a combination of individual skill, cognitive abilities, social propensity,

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<sup>65</sup> Mark Story, "Sports World Vs. Corporate World: How Much can Real-World Bosses Learn from the Way Coaches Motivate their Players?" *The Gazette*, Jun 28, 1999, C6.

adaptability, and motivation to achieve victory.<sup>66</sup> The most skilled athletes can make rapid assessments of their teammates and opposing players and adjust their actions to the advantage of their team. Motivational leaders in sport are those individuals who can bring the best out of their teammates or players. The same principles are emphasized in CF military leadership doctrine and training.

This chapter aims to identify the congruence between the leadership characteristics of sports teams and military units. Analyzing the connections between these two domains will elicit discussion on using sport as a training method for military leaders at the platoon level and higher.

### **Canadian Forces Leadership Principles and Team Sport**

*Leadership, like coaching, is fighting for the hearts and souls of men and getting them to believe in you.*

- Eddie Robinson

*Leadership in the Canadian Forces: Doctrine* suggests twelve principles that form the basis for leadership within the organization.<sup>67</sup> Each principle will be discussed here as it relates to the sport – military paradigm and the specific aspect of leadership.

#### Achieve Professional Competence and Pursue Self-Improvement

A military pilot needs to be capable of effectively operating an aircraft. More than any other factor, mastery of the technical and tactical skills required to fight an aircraft during combat will determine the success of the mission and the safety of the operator(s). In a crew environment, each member must be proficient in their technical expertise in order to ensure decision cycles can be completed rapidly and accurately. If issues arise that disrupts or confuses

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<sup>66</sup> Debra A. Shogan, *The Making of High-Performance Athletes: Discipline, Diversity, and Ethics*, (Toronto: University of Toronto Press, 2001), 34.

<sup>67</sup> Department of National Defence, A-PA-005-000/AP-003, *Leadership in the Canadian Forces: Doctrine* (Ottawa: DND Canada, 2005), 32.

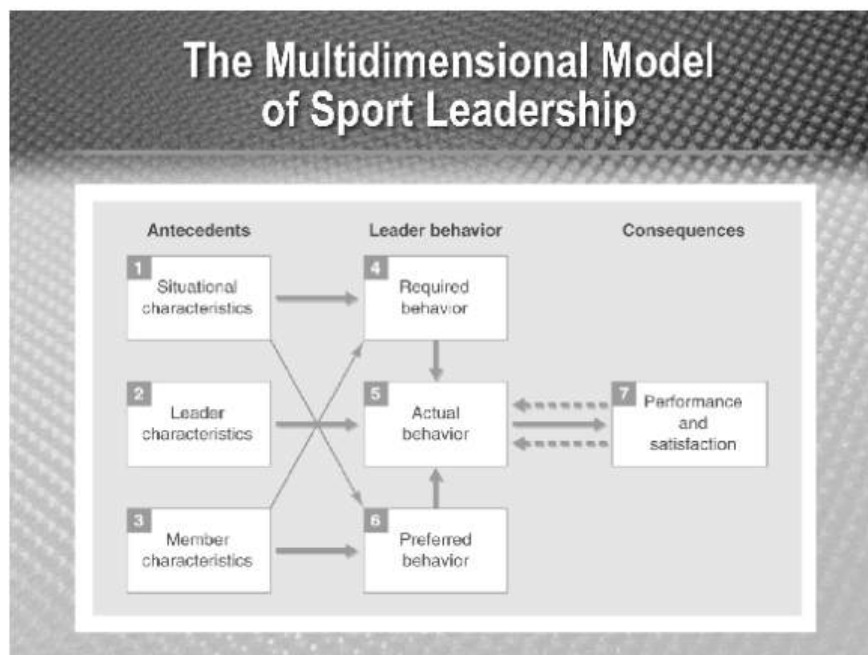
the flow of critical information, the leader needs to have the professional knowledge and expertise to evaluate the situation and rationalize his decision. Proficiency through on-going training, education, self-study, and experience will ensure adroitness of their military specialty.<sup>68</sup> According to the leadership principles embodied by the UMSC, competence in one's primary duty will garner the respect of colleagues and subordinates.<sup>69</sup>

Respect for one's ability or insight into sport is a key issue that motivates athletes to perform well. As the perception of ability – especially that of a coach – can be difficult to quantify, the effect of professional competence and resulting group performance can be analyzed using Chelladurai's Multi-Dimensional Model of Sport Leadership (MML) (Figure 3). The column titled Antecedents represents the characteristics affecting the leader's behavior: 1) environmental conditions; 2) skill / experience / personality of leader; and 3) experience / expectations of the group. The column titled Leader Behavior refers to the leadership method chosen: 4) leadership method most suitable for the situation; 5) method chosen by the leader; 6) leadership method most welcomed by the group. The inputs that the leader receives from boxes 1,2,3,4, and 6 of the MML contribute to the leadership method of the coach. The delivery of the coach's intent and the feedback received from the players in box 7 determines the relative level of performance and group satisfaction of the scenario.

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<sup>68</sup> Department of National Defence, A-PA-005-000/AP-003, Leadership in the Canadian Forces: Doctrine (Ottawa: DND Canada, 2005), 32.

<sup>69</sup> United States Air Force Air War College, "Strategic Leadership Studies: Competencies and Skills," last modified 19 April 2013, <http://www.au.af.mil/au/awcgate/usmc/leadership.htm>.



**Figure 3: The Multidimensional Model of Sport Leadership**

Since group performance and group satisfaction is not mutually exclusive this model allows for three possible outcomes. Firstly, if the leader is technically competent and correctly identifies the required behavior for the situation and given environmental conditions, group performance can be high but understanding of the group will be low. Secondly, a leader can ignore the required behavior and conform to the preferred actions in which case the group may appear satisfied but the objective will not be met. Finally, and ideally, the leader may choose a competent action and acceptable delivery method for the situation that will balance both the group performance and group satisfaction. To adapt a colloquial term to this situation, the MML considers “what you say and how you say it”.

The MML mirrors this military leadership principle well in that the leader must be a skilled operator in order to accomplish the mission<sup>70</sup>, but he must also be perceived as a logical decision-maker in order to earn the confidence of the group.

#### Clarify Objectives and Intent

Clear and concise communication allows a unit to operate in unison or independently towards a well-defined outcome. Current research in leadership behavior and cohesion in sport reveals that if an athlete prefers an outcome that differs from one articulated by the coach, a gap will develop in the expected behavior of the athlete.<sup>71</sup> The conflicting space between what an athlete prefers and what he perceives the coach is providing is termed *value congruence*. The perceptual discrepancies that exist in such a scenario have been associated with numerous types of relationship failures, including some between coaches and athletes. Successful teams accept a common vision and encourage interaction (feedback) which leads to a shared understanding of the preferred behavior and outcome. Shared congruence among athletes and coaches has resulted in better athletic performance.<sup>72</sup>

When no doubt exists regarding the intent and the objective, soldiers are provided with “maximum freedom of action and the capability to operate independently, if necessary”.<sup>73</sup> Extensive research and analysis has been done by Alberts and Hayes in this field, particularly with respect to the concept of an *edge* organization. The Command and Control (C2) approach space (Figure 4) is used to illustrate this model. The closer an organization is able to approach *Edge C2*, the more it should be considered an effective organization.

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<sup>70</sup> Light Shields, et al., "The Relationship between Leadership Behaviors and Group Cohesion in Team Sports," *The Journal of Psychology* 131. No. 2 (1997): 208.

<sup>71</sup> *Ibid.*, 199.

<sup>72</sup> *Ibid.*, 199.

<sup>73</sup> Department of National Defence, A-PA-005-000/AP-003, *Leadership in the Canadian Forces: Doctrine* (Ottawa: DND Canada, 2005), 32.

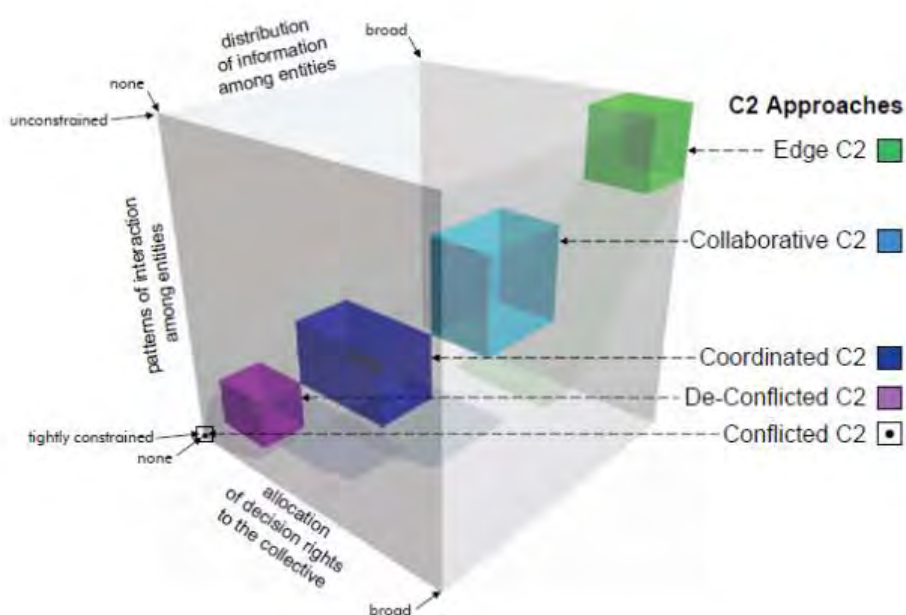


Figure 4: C2 Approaches as regions in the C2 Approach space<sup>74</sup>

Source: Alberts, *NATO NEC C2 Maturity Model*, xvii.

The lower axis of Figure 3 represents *allocation of decision rights to the collective*. A&H explain that participating entities, motivated soldiers in this case, who would sacrifice their respective rights for the benefit of the mission, would move to the right in the C2 approach space. The vertical axis refers to the level of constraint in the *patterns of interaction among entities*. A leader who remains available to explain his intent to subordinates and makes an effort to ensure the intent is understood at all levels moves the C2 approach space towards the top of the model. The final axis is labeled: *distribution of information across participating entities*. The focus of this dynamic is the dissemination of both information and authority. If information is disseminated quickly and clearly, the C2 approach space moves closer to the *edge*, unit effectiveness should increase, and subordinates will be comfortable operating independently to accomplish the objective.

<sup>74</sup> David S Alberts, *NATO NEC C2 Maturity Model*, (Washington: Department of Defense, 2010), xvii.



### Solve Problems; Make Timely Decisions

Solving problems in a combat environment can be difficult to say the least. Often, the problem at hand will not be one that has been encountered before and situational factors can be in a state of flux. Studies have shown that appropriate decisions in such *ill-defined* domains are most often made by *expert* leaders.<sup>75</sup> Expert leaders use strategies based on experience, research, and theory to address unfamiliar problems and accomplish the mission. When time is not a critical factor and circumstances allow, leaders gather as much pertinent information as possible from multiple stakeholders.<sup>76</sup> When time is critical, experience from making considered decisions factors into decision-making strategy and often appears as *instinct*. An experiment by Schunn, McGregor and Saner considered the development of leadership expertise and the use of layered strategies in ill-defined domains. Their findings supported the notion that while multiple strategies may be considered to solve a problem “there are likely to be connections between strategies and chunks or representations”.<sup>77</sup> The *chunks* relate to the cognitive experiences that have been learned by the individual over time. The more chunks that are available to be retrieved, the more effective decision-making can be in ill-defined domains.

Combat situations can only be simulated periodically and at significant expense. Additionally, combat exercise scenarios are likely to remain relatively consistent with learned behavior since such exercises often serve as a confirmation activity.<sup>78</sup> It therefore behooves leaders to explore other avenues by which to gain the experience to solve complex problems.

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<sup>75</sup> Christian D Schunn, Mark U. McGregor, and Lelyn D. Saner, "Expertise in Ill-Defined Problem-Solving Domains as Effective Strategy use." *Memory & Cognition (Pre-2011)* 33, no. 8 (2005): 1377.

<sup>76</sup> Department of National Defence, A-PA-005-000/AP-003, *Leadership in the Canadian Forces: Doctrine* (Ottawa: DND Canada, 2005), 32.

<sup>77</sup> Christian D Schunn, Mark U. McGregor, and Lelyn D. Saner, "Expertise in Ill-Defined Problem-Solving Domains as Effective Strategy Use," *Memory & Cognition (Pre-2011)* 33, no. 8 (2005): 1384.

<sup>78</sup> Most Canadian Army readiness evaluations at the Company or Battalion level are reserved for combat exercises. LRP Sqn crews are also observed during deployed exercises prior to taking on the responsibility of the high readiness crew.

Team sport provides an economical and relevant substitute for leaders to sharpen their decision-making abilities on a sufficiently frequent basis, in an ill-defined domain.

When U.S. Airways pilot Chelsey “Sully” Sullenberger landed his commercial jet in the Hudson River, he attributed his success in part to *intuitive expertise* which was the result of decision-making exercises and experience that he learned outside of the world of commercial aviation.<sup>79</sup> Thirty years as an Air Force fighter pilot and significant glider training certainly played a role in his successful water landing; however, the decision was made so quickly that researchers believe Sully knew in his mind that the Hudson River was a possible emergency landing area. They classify his actions as *intelligence of the unconscious*.<sup>80</sup>

Intelligence of the unconscious is a type of rapid decision-making rooted in pattern recognition, experience, and practice. It often occurs while the situation is under development, therefore limiting the utility of more rigid decision models that rely on hard facts. Decision making exercises which practice problem solving in unfamiliar and evolving situations occurs during sports activities. Research in the area of sports expertise has found that “experts in many reactive sports enjoy a distinct advantage in their ability to extract predictive information from environmental clues”<sup>81</sup> of an opponent. Additionally, while the environmental clues such as the physical motion of an opponent throwing a ball are beneficial for the expert’s sport, recognition of the same type of environmental clues can be carried over to other sports and similar activities.

In the world of sports, the greatest athletes are often considered *students of the game*. They watch video of opponents, explore creative avenues to enhance performance, and have an appreciation for the intellectual aspect of the sport. Athletic professionals understand that game

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<sup>79</sup> Peter J. Fadde, “Expertise-Based Training: Getting More Learners Over the Bar in Less Time,” *Technology, Instruction, Cognition and Learning* 7 (2009): 172.

<sup>80</sup> *Ibid.*, 174.

<sup>81</sup> *Ibid.*, 176.

experience is but one way to ensure that they have all of the strategies available to them when making a decision that could affect the outcome of the game. Time-outs are used in most sports to enable additional analysis and use the perspective of coaches and other players when facing an ill-defined domain. Athletes such as Wayne Gretzky also attribute some of his success and longevity in hockey to learning and cross-training in sports such as lacrosse, where he was able to learn how to avoid contact with bigger and stronger opponents.

The greatest hockey player of all time, Gretzky was often credited with great hockey instinct. When asked about his instinct in a press conference, he attributed his success to his relentless study of the game "... nobody would ever say a doctor had learned his profession by instinct...I've put in almost as much time studying hockey as a medical student puts in studying medicine".<sup>82</sup>

It stands to reason, then, that just as Sully and Wayne Gretzky gathered as much knowledge and experience as possible to be able to make rapid decisions in constantly changing environments, military leaders in combat can benefit from discussions with subject matter experts and exposure to situations outside of their familiar environment.

Direct; Motivate by Persuasion and Example and by Sharing Risks and Hardships

*Leadership is getting players to believe in you. If you tell a teammate you're ready to play as tough as you're able to, you'd better go out there and do it. Players will see right through a phony. And they can tell when you're not giving it all you've got.*<sup>83</sup>

– Larry Bird

When faced with challenging circumstances or obstacles, effective leaders are often motivating and inspirational. Transformational leaders in the business community such as Steve

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<sup>82</sup> Peter Gzowski, *A Peter Gzowski Reader* (Toronto: McClelland & Stewart, 2001), n.p.

<sup>83</sup> Brainy Quote, "Larry Bird Quotes," accessed 10 September 2012, [http://www.brainyquote.com/quotes/authors/l/larry\\_bird.html](http://www.brainyquote.com/quotes/authors/l/larry_bird.html).

Jobs is excellent example of inspirational leadership, yet there are aspects of sports and military activity that create a naturally stronger bond than either community has with the business world or civil groups. In sport "something physical is involved; in most jobs, it's not. There needs to be a certain intensity in athletes. An intensity like soldiers have to have."<sup>84</sup> If a regular person is asked to advance toward an enemy at the risk of injury or loss of life, hesitation or refusal to advance could be considered a natural reaction. If the same request is made to a soldier in a combat environment, the directions are not questioned due to a combination of training, culture, and inspirational leadership. Soldiers will follow a leader into very austere circumstances if they have the confidence in the leader.

In hockey, players do not hesitate to throw their body in front of a slap shot in order to block the puck from reaching the net. There are multiple stories of players being injured during the course of a game – only to return later sporting stitches and a mask to protect the fresh wound. Many players play through pain and minor injury on a regular basis. Their actions display that even through hardship and physical risk, they are still motivated to accomplish the mission. However, given the increased awareness of concussion-related health issues, some hockey players have tried to avoid physical play or taken extensive time away from hockey in order to ensure a complete recovery. In this instance, taking time off can also be inspirational to those players who would otherwise play through the pain to the detriment of their long-term health. Sports and the military are similar in the way that the physical actions, sacrifice, and risk to physical well-being is a constant consideration.

Due partly to reliance on a combination of physical and mental abilities, one could argue that inspirational leadership in sports, military, and professions such as firefighting and law

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<sup>84</sup> Mark Story, "Sports World Vs. Corporate World: How Much can Real-World Bosses Learn from the Way Coaches Motivate their Players?" *The Gazette*, Jun 28, 1999, C6.

enforcement can have a greater impact than in other communities. It can be very motivating to teammates, fans, and bystanders when words are followed up by physical actions. In 1994, trailing three games to two, Mark Messier of the New York Rangers famously guaranteed a win before game six of the Eastern Conference finals. That game, he scored three goals in the 3-2 victory and sparked his team to win game seven and the next series to secure the Stanley Cup championship.<sup>85</sup>

### Train Individuals and Teams under Demanding and Realistic Conditions

If it's not raining, you're not training!

The parameters of combat are wide-ranging. In addition to terrain and weather challenges, soldiers, sailors and airmen routinely operate in a murky *grey area* amidst a plethora of other unknowns. Enemy action can be unpredictable and without warning, which can force soldiers to react to a developing situation rather than take deliberate actions under known circumstances. Realistic training, therefore, requires that units be exposed to unexpected and challenging scenarios. Since previous leadership principles assure that individuals possess the individual technical skill required for combat, conditions-based training simply tests the effectiveness of these skills under duress or pressure.

Exposure to high-stress training situations simulates the soldier's capacity to respond to combat stress. A lack of sleep and physiological strain – characteristic of prolonged military training – decreases testosterone levels and increases cortisol levels.<sup>86</sup> A soldier's body must physically compensate for this deficiency in order to interact effectively with his unit. Studies have shown that there is a direct correlation between soldiers with higher fitness levels and the ability to operate effectively over prolonged operations. A study of nine leaders of the Finnish

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<sup>85</sup> [http://en.wikipedia.org/wiki/Mark\\_Messier#Off\\_the\\_ice](http://en.wikipedia.org/wiki/Mark_Messier#Off_the_ice)

<sup>86</sup> Jarno, Tyyska, *et al.*, "Association with Physical Fitness, Serum Hormones and Sleep during a 15-Day Military Field Training," *Journal of Science and Medicine in Sport* 13, no. 3 (2010): 356.

Army during military field training revealed that, to be effective, the minimum recommended physical fitness index level is 3.0 which also equates to a VO<sup>2</sup> max of 44 ml kg<sup>-1</sup> min<sup>-1</sup>.<sup>87</sup>

Aerobic fitness, therefore, is important to prevent the effects of combat stress in a combat environment. Realistic training exercises allow leaders to test the physical capacity in this regard without subjecting the team to the dangers of a real combat environment.

In addition to the physical benefit of participation in sport, athletic competitions replicate many psychological aspects that leaders endeavor to bring about in training. And like combat, no hockey, volleyball, cricket, or rugby match is the same. Throughout the course of a game, teams will experience the joy of being in the lead, the frustration of being behind, the satisfaction of recovering from a setback to win the game, and the process of rebuilding confidence after a loss. A multitude of situations can be put forth to illustrate psychological stress (penalty kicks) and physical exertion (triple overtime). Training for the stressors of combat through sport can therefore enhance the effectiveness of soldiers and leaders during combat training exercises.

### Build Teamwork and Cohesion

*“Individual commitment to a group effort – that’s what makes a team work, a company work, a society work, a civilization work.”*

- Mike Shanahan, NFL champion football coach

One of the most important duties of the military leader is to promote teamwork and cohesion. The same is true for leaders of sports teams. In fact, the importance of teamwork to both sports teams and military units is one of the main factors that differentiate them from the general population. Athletic competitions and military operations require a comprehensive dependence on all team member’s mental and physical capacities. Other situations requiring group cohesion to accomplish a goal – such as in business – fall short of such comprehensive demands.

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<sup>87</sup> Ibid., 359.

The sentiment behind cohesive units in difficult military and sporting situations has been immortalized in literature and film such as *Band of Brothers*, *Miracle*, *Slapshot*, *Rudy*, and *Saving Private Ryan*. Each of these movies tells a story about hard work and overcoming obstacles through dedication and mutual dependence. The USMC encourages the sharing of hardships to “develop teamwork, improve morale and esprit and mold a feeling of unbounded loyalty as this is the basis for what makes men fight in combat”.<sup>88</sup> In addition to sharing hardships, author Darryl Henderson notes that cohesion at the tactical military is essential. According to his research, “the primary group is essential for the realities of battle. If there is no social cohesion at this level, there is no possibility of secondary symbols accomplishing the task.”<sup>89</sup>

Characterized by extensive training, sacrifice, and physical challenges, the journey of a military unit or team to accomplish their objective is hard – both physically and mentally. In order to inspire followers to: a) get along, and b) accomplish the mission, leaders must consider various behavioral methods including *consideration* and *initiating structure*. While consideration focuses on team building and fostering mutual trust and respect between leaders and subordinates, initiating structure is concerned with the procedures and processes necessary to accomplish the goal.<sup>90</sup> Maintaining a balanced approach of these behaviors is the fundamental leadership challenge.

Similarly, cohesion is essential for success in sport. Very few sports teams become great immediately upon grouping skilled players together. It generally takes a period of time for

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<sup>88</sup> United States Air Force Air War College, “Strategic Leadership Studies: Competencies and Skills,” last modified 19 April 2013, <http://www.au.af.mil/au/awcgate/usmc/leadership.htm>.

<sup>89</sup> William Darryl Henderson, *Cohesion: The Human Element in Combat*, (Washington: National Defence University Press, 1985), 72.

<sup>90</sup> Light Shields, et al., "The Relationship between Leadership Behaviors and Group Cohesion in Team Sports," *The Journal of Psychology* 131. No. 2 (1997): 197.

teammates to build trust and gain respect for each other before they can achieve the highest degree of success in their sport. To an extent, sports teams recognize the importance of cohesion over skill. For Olympic contests, some countries have chosen players of lesser talent, but who have good chemistry together, over more talented players who would theoretically need to build cohesion with teammates prior to reaching peak performance.

#### Keep Subordinates Informed; Explain Events and Decisions

As a leader of other adults, information sharing is critical to ensuring that subordinates in combat understand the intent behind decisions. A ‘thinking soldier’ is expected to analyze a situation and act appropriately and in a timely fashion.<sup>91</sup> Training for such a soldier is intended to be *competency-based* or *comprehension-based*<sup>92</sup> rather than role based, meaning that the soldier would be expected to utilize their experience and general understanding of a situation to determine a course of action rather than relying on specific or technical training. The routine and prompt passage of information contributes to subordinates’ situational awareness and their ability to respond appropriately to a changing situation.<sup>93</sup> When subordinates are made aware of developments that may affect them or the unit, they more likely to trust the person passing the information and less likely to question decisions made for the unit.

Similarly, collegial and professional sports athletes are adults and they should be treated as such. An autocratic approach on its own is rarely effective. Sharing of information with subordinates makes them feel that they are part of the team and encourages feedback. Athletes and soldiers play a critical role as instruments to achieve a goal, but it is important to remember that they are individuals and need to be informed and treated in a certain way to elicit the best

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<sup>91</sup> Allan Akman and John T. Nelson, *The Multi-Skilled Soldier: Concept Considerations for Army Implementation*, (Alexandria: US Army Research Institute for the Behavioral and Social Sciences, 2002), 10.

<sup>92</sup> *Ibid*, 10.

<sup>93</sup> Department of National Defence, A-PA-005-000/AP-003, *Leadership in the Canadian Forces: Doctrine* (Ottawa: DND Canada, 2005), 32.



performance. In the world of athletics, *Athlete Centered Coaching* pertains to the balance between making decisions and providing an environment of trust and open communication that promotes shared understanding.



Figure 5: Coaching Styles and Athlete Needs<sup>94</sup>

Source: *AthleteAssessments.com*

A study by Canadian Olympian Bo Hanson points to the importance of the Coach Athlete relationship as one of the key factors of the success of Canadian athletes at the 2010 Winter Olympics in Vancouver. Figure 5 depicts the four coaching styles of the CoachDISC<sup>95</sup> model. The dotted line indicates the requirement for effective coaches to be able to transition between coaching styles in order to optimize athletic and team performance. Hanson promotes the need for a coach to develop a firm emotional contract with each athlete wherein strong two-way

<sup>94</sup> Bo Hanson, "Success of Coach Athlete Relationships (Canadian Olympic Study)," *AthleteAssessments.com*, Accessed on 10 November 2013, [http://www.athleteassessments.com/articles/success\\_of\\_coach\\_athlete\\_relationships.html](http://www.athleteassessments.com/articles/success_of_coach_athlete_relationships.html).

<sup>95</sup> In CoachDISC, D is for Dominance, I is for Interactive, S is for Steadiness, and C is for Compliance.

communication nurtures trust and aligns values and behaviors.<sup>96</sup> The same principle can be applied to military leadership where it is the duty of the leader to know the intricacies of each subordinate and how to bring forth the best qualities of that individual in any situation. Like the Coach Athlete relationship, open communication and sharing of information is key to reducing tension and building trust.

#### Mentor, Educate, and Develop Subordinates

Most leaders will attribute some of their success to exceptional guidance or mentorship throughout or at a pivotal point in their career. There are very few individuals who are able to rise to greatness without the support of mentors, teammates, coaches, or family ... well, except maybe Reggie Jackson...

Military professionals have a keen understanding that subordinates need to have a healthy understanding of the leader's responsibilities. In combat, it is possible that a subordinate will be forced to assume the role of the leader if they are wounded in battle. Therefore, leaders know that they must encourage and challenge their subordinates to understand the intricacies of the position in order to continue seamless operations when faced with adversity. While senior members in rank generally mentor junior ranks, there are occasions where valuable knowledge can be gained outside of this formal structure. For example, in the case of a junior officer, some of the most relevant mentoring can come from a senior NCO. Although subordinate in rank, the experience of the senior NCO can prove extremely beneficial to the junior officer and help him/her to earn the trust and respect of the unit.

In a more formal sense, there is an expectation that personnel will be posted to a new position or unit after a finite period of time and replaced with someone new. This can be true for

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<sup>96</sup> Bo Hanson, "Success of Coach Athlete Relationships (Canadian Olympic Study)," *AthleteAssessments.com*, Accessed on 10 November 2013, [http://www.athleteassessments.com/articles/success\\_of\\_coach\\_athlete\\_relationships.html](http://www.athleteassessments.com/articles/success_of_coach_athlete_relationships.html).

both Officer's and NCMs. Proper mentoring and information sharing becomes critical in these situations so that a rapid turnover of personnel does not cause a vacuum of corporate knowledge at the unit. Just like sports organizations, military units seek to train subordinates retain is to a comprehensive understanding of the unit / organizational functions and to ensure long term leadership capability.

Professional sports teams recognize the need to mentor junior players as they enter their respective leagues so that they can effectively deal with the emotional and psychological pressures of organizational expectations, team dynamics, and newfound financial commitments. Sidney Crosby lived with Mario Lemieux and his family when he started his career in the national hockey league. Retired NFL head coach Tony Dungy was assigned to specifically mentor Michael Vick of the Philadelphia Eagles when he returned to professional football. Most professional baseball teams have adopted the practice of pairing an experienced player with a protégé of the same position as roommates for the season so that they will have the opportunity to share techniques and experiences relative to their specific positions on the baseball diamond.

#### Treat Subordinates Fairly; Respond to Their Concerns; Represent Their Interests

Communication is a two-way street. The keen military leader is acutely aware of the leader-subordinate relationship and the importance of mutual respect to keep lines of communication open between members.<sup>97</sup> Understanding the concerns of subordinates displays empathy and helps to create a comfortable and supportive environment. A leader who gains the trust of unit members can earn credibility which can allow the leader to influence the actions of unit members.<sup>98</sup> Ignoring the concerns of subordinates runs the risk of isolating the individual and they could become disassociated with the leader and less interested in retaining their

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<sup>97</sup> Bernd Horn and Robert Walker, *The Military Leadership Handbook*, (Kingston: The Canadian Defence Academy Press, 2008), "Counselling."

<sup>98</sup> Ibid, "Counselling."

membership within the unit. In the extreme circumstance where a subordinate's latent discontent manifests itself within other members of the group, efficiency will suffer and the *low-power* group could be motivated contrary to the leader's intentions.<sup>99, 100</sup>

Leaders have moral and practical obligations to know their subordinates' needs, take care of them, treat them fairly, and provide essential support for their families.<sup>101</sup> Officers in the CAF commit to the well-being of their subordinates when they accept their commission. The motto of the USMC, *Semper Fidelis* (always faithful), espouses the commitment of the Marines to colleagues and subordinates for "the mission at hand, to each other, to the Corps and to country, no matter what."<sup>102</sup> Such oaths help to establish and maintain trust, while also enhancing a member's service commitment.

It should be noted that representing the interests of military subordinates goes beyond support for the individual and family during times of need. The responsibility of the leader to address failures of an individual or group is also vital to the concept of fairness. Military units possess a robust disciplinary capability for administrative and behavioral issues. A leader's obligation to a subordinate can sometimes be satisfied through the application of corrective measures if such an action is warranted. Sports teams and military units have historically accepted the responsibility to challenge individuals in some instances, and take action to correct failures of personnel in others. Awarding an athlete the responsibility of team captain or ordering the entire team to run laps after a poor performance can illustrate fairness and show that the

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<sup>99</sup> Morton Deutsch, *The Resolution of Conflict: Constructive and Destructive Processes*, (Binghamton: Yale University Press, 1973), 396.

<sup>100</sup> Albert V Carron, *Group Dynamics in Sport* (University of Michigan: Fitness Information Technology, 2005), 26.

<sup>101</sup> Department of National Defence, A-PA-005-000/AP-003, *Leadership in the Canadian Forces: Doctrine* (Ottawa: DND Canada, 2005), 32.

<sup>102</sup> United States Marine Corps, "Principles and Values," accessed 5 November 2013, <http://www.marines.com/history-heritage/principles-values?nav=LPI>.

leader is prepared to take action that they believe is in the best interest of subordinates and the organization.

#### Maintain Situational Awareness; Seek Information; Keep Current

A lifelong commitment to learning is critical to individual and group success in any profession. Military, sports, business, and government all concede that the best leaders are capable of evolving with the environment. Those leaders possessing an aptitude to adapt to changing situations will be best situated to make difficult decisions for the benefit of their group. It behooves the clever leader to seek out opportunities to expand his/her knowledge about an unfamiliar aspect of their chosen craft.

A military unit's approach to maintain situational awareness and constant learning is structured. Individuals are aware of the expectation to continue their professional studies and are evaluated on their ability to complete such career courses. Promotions offer individuals an opportunity to develop their leadership capacity and acquire knowledge that they did not necessarily require at a junior rank. In the CAF, those military leaders that seek additional knowledge and work towards professional expertise are generally recognized during their annual performance review. Additional points are allocated for post-secondary and graduate level education, fitness, and language skills. A high score on the annual evaluation, combined with consistently strong performance can lead to challenging professional opportunities.

It is common to see accomplished professional athletes maintain ties with an athletic organization when their playing career is over. While they may not be able to physically compete with the younger players anymore, sports leaders can develop themselves in many ways to contribute to the success of a team. John Cribbin and Peter Kennedy point out the need to

“supplement technical skills with management skills”<sup>103</sup> if one is to succeed in a career of recreation and sport. Notable examples of athletes who have achieved success as players and management include Wayne Gretzky, Mario Lemieux, and Steve Yzerman. The difference between the sports community and military units in this respect is that the onus is perhaps more centered on the individual in the sporting community. For many reasons including the capacity to accept all former athletes into management positions, specific programs or classes do not exist in many athletic societies to ease their transition to a position of management. However, some organizations, such as Hockey Canada, have developed initiatives like “Hockey University” which allows anyone who is interested in hockey to sign up for courses and programs that will qualify them to stay involved in hockey on a volunteer basis.

#### Learn From Experience and Those Who Have Experience

*“Our success in some areas could be from something else that we’ve seen other teams do and copied from them.”*

- Brian Billick, NFL champion football coach

The quote from Brian Billick above recognizes the importance of learning from a variety of sources. It is not restricted to learning from individual or group experience. In the athletic world, studies have made a direct correlation between participation in multiple sports and performance. A recent study by Bridge and Toms explored the concept of sport *sampling* among adolescents in the UK to determine if athletic performance was greater among those athletes that participated in more than one sport through the ages of 7-18 compared to those who specialized in only one sport. The results showed that the participants were anywhere from 1.5 to 4 times more likely to play at a *national* compared to *club* level than the athletes who practiced one

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<sup>103</sup> John Cribbin and Peter Kennedy, *Lifelong Learning in Action: A Life’s Work*, (Hong Kong: Hong Kong University Press, 2002), 173.

sport.<sup>104</sup> Reflecting on this study, one can surmise that skills and experiences learned in one sport can be transferred (and beneficial) to another sport.

One of the premier professional hockey scorers of the day is Tampa Bay Lightning centre, Steven Stamkos. While Stamkos has averaged over fifty goals per season over the last two years, not all of his goals have been the result of a traditional hockey movement. At least a handful of his goals each year are scored by batting the puck out of the air or kicking the puck from his skate to his stick in order to take a shot. This means that at least 10% of his offensive production each year is the result of a movement that has been learned through something other than hockey. A look into Stamkos' athletic biography reveals that he was encouraged to play baseball, lacrosse, golf, and soccer - possibly enhancing his hand-eye coordination and athletic prowess.

When it comes to learning from mistakes, the similarities between sports teams and military units is remarkable. Using the example of a long range patrol mission, prior to the flight itself, standard practice requires the Crew Commander to review *lessons learned* material from any similar event undertaken by the same unit or platform. Following the review, the entire crew will undergo a "dry run" which aims to identify any outstanding operational or administrative issues that would negatively affect the success of the mission. If time permits, additional training in simulators or aircraft would enhance the crew's readiness and confidence for the mission. At the completion of the mission, the entire crew will de-brief the positive and negative points of the trip and offer suggestions for improvement. Recordings can also be used to amplify the cumulative learning of the crew. Finally, the Crew Commander is required to prepare a report on

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<sup>104</sup> Matthew W. Bridge and Martin R. Toms, "The Specialising Or Sampling Debate: A Retrospective Analysis of Adolescent Sports Participation in the UK " *Journal of Sports Sciences* 31, no. 1 (2013): 92.

the mission with specific sections reserved for lessons learned. The result of this process allows follow-on crews to benefit from the experience of the unit.

A collegial or professional football team prepares for a game in much the same manner as military air crew. Armed with footage from previous games, coaches and players view the strengths and weaknesses of their opponents before coming up with a game plan of their own. Practices that focus on the intricate plays and strategy that the team will employ hone the skills of all players and increase the confidence level of the team. After the game, players and coaches review video to evaluate the success or failure of their execution with the intention to improve weak areas and capitalize on strong points.

Military sports teams approach competition with other units in a similar fashion, although usually in a much less-sophisticated manner. Information sharing as to what player on the opposite team likes to shoot the puck to the glove side, and which pair of defensemen are slower skaters can give a team a competitive edge. Such similarities in information sharing and lessons learned between sports teams and a military unit adds support the existence of a sport-military paradigm.

#### Exemplify and Reinforce the Military Ethos; Maintain Order and Discipline; Uphold Professional Norms

Finally, the idea of a sport-military paradigm is illustrated in the importance that individuals place on their professional values and ethics. Most military forces appeal to sentiments of patriotism and the importance of national sovereignty to guarantee allegiance to the organization. Within a national service, uniforms, traditions, and symbols further serve to recognize commitment to a specific element of that service. Professional sports organizations share similar characteristics in that uniforms, traditions, and symbols bridge the differences



between individual teams and support the greater value of the sport itself. The national hockey league, national basketball association, and national football league each make a significant commitment to their community through outreach programs, community development, and financial contributions.

Each league is aware of their public image and takes visible steps to ensure that they continue to make a positive contribution to society. If a player or coach displays poor judgment or conduct which tarnishes the reputation of the league, fines and suspensions are issued publicly in order to enforce the notion that the league as a whole frowns on the action and to deter the act from happening again. In 2012, almost 200 fines were issued to players for incidents ranging from wearing socks too low to fighting.<sup>105</sup> Moreover, sports organizations have a reputation of maintaining stalwart values even when faced with very controversial issues. Most major sports have seen various scandals such as the use of performance enhancing drugs and individual intolerance to racism and sexism which test the values of the organization as a whole, however, those issues generally serve as an opportunity for the league to make a positive assertion in favour of accepted social morality and the values of the organization. The continued ban of Pete Rose from major league baseball and the Hall of Fame – even though he holds the record for most career hits, runs, and games played – is testament to that determination.

The Summary Trial system in the CAF has a similar philosophy in that disciplinary proceedings must be seen to be just, are open to the public, and generally dealt with in a swift manner for the purpose of deterring a similar offence in the future. Additionally, military leaders have the flexibility within their command authority to administer corrective measures to individuals without the aid of formal proceedings. Swift actions to correct a deficiency can often

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<sup>105</sup> Zach Kruse, "The Many Inconsistencies in NFL Fines," *Bleacher Report*, 30 January 2013, <http://bleacherreport.com/articles/1507734-the-many-inconsistencies-in-nfl-fines>.

be all that is required to improve individual behaviour. The same possibilities exist within a sporting competition in that the referee can call players for penalties or infractions based purely on their objective assessment of the situation and the player is expected to abide by the decision. Training through sports contests could help to condition military personnel in the acceptance of discipline and subordination.

At the individual level, commitment to a military organization is formally made through the profession of an oath. An officer's commissioning scroll espouses the responsibility of the individual to maintain discipline of subordinates and respect the principles of the organization in which he/she serves.<sup>106</sup> In Canada, the document stresses loyalty, courage, and integrity in service to the nation and to the Queen of Canada. The Olympic Oath is the athletic equivalent of military service oaths.

In the name of all competitors, I promise that we shall take part in these Olympic Games, respecting and abiding by the rules that govern them, in the true spirit of sportsmanship, for the glory of sport and the honour of our teams.<sup>107</sup>

Both oaths represent disciplined and obedient actors whom are expected to maintain a high level of personal conduct within their profession. Sports teams and military units are set apart from businesses and other recognized groups in this respect. In business, for example, greatness is sought for the benefit of the company or individual workers. As indicated in the oaths for the CAF and the Olympics, the results of individual effort focus on the glory of sport and the security of the nation.

Understandably, the CAF leadership principles are consistent with those of other combat forces such as the United States Army (US Army) and United States Marine Core (USMC). Other government agencies and private business see the value in military leadership principles as

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<sup>106</sup> Raymond Townsend, Canadian Commissioning Script, 1 May 2001.

<sup>107</sup> Karel Wendl, "The Olympic Oath - A Brief History," *Journal of Olympic History* (Winter 1995): 4.

well and many successful companies have incorporated the concepts of the CF into their own leadership program. And while the logic behind understanding psychological or sociological considerations when leading a group of people can be applied to a multitude of fields, the practical task of leading a group into a combat-like environment is unique to the military and sport.<sup>108</sup> In both situations, a group is in direct physical competition where the consequence of losing could involve physical and/or moral suffering. The unique aspect of competition, physical and mental demands on the individual, and value of leadership development link participation in sport to members of a military unit and support the existence of a sport – military paradigm.

### **MENTAL TOUGHNESS IN SPORT AND THE MILITARY MINDSET**

Mental toughness is difficult to define. It can incorporate resiliency, ability to deal with stress, and even critical thinking. The perception of mental toughness can also vary depending on the unique characteristics of the individual and the environment. For example, a woman experiencing labour can be considered mentally tough, while mental toughness can also be associated with a wrongfully imprisoned individual confident in his/her eventual liberation. This paper will use Peter Clough's definition of mental toughness:

The quality which determines in large part how people deal effectively with challenge, stressors and pressure ... irrespective of prevailing circumstances.

Challenge, stressors and pressure apply to many aspects of daily life. They are present in business, education, social settings, personal relationships, a combat environment, and on a sports field. With respect to the latter two situations, this section intends to showcase how sport training can contribute to the mental toughness of a unit through development of rituals and stress management.

### **The Importance of Rituals and Habits**

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<sup>108</sup> Mark Story, "Sports World Vs. Corporate World: How Much can Real-World Bosses Learn from the Way Coaches Motivate their Players?" The Gazette, Jun 28, 1999, C6.

*“We are what we repeatedly do. Excellence then, is not an act, it is a habit.”*

- Aristotle, Philosopher

Mark Tewksbury ate a Big Mac© before every swim meet. French soccer defender Laurent Blanc used to kiss the bald head of his goalkeeper Fabien Barthez before every match. Mark “The Bird” Fidrych was famous for grooming the pitcher’s mound before every inning and talking to himself and the baseball throughout the game.<sup>109</sup> The reasons for such strange behaviour prior to a performance are based in both superstition and familiarity. In essence, the two concepts are related. Whether the act is performed out of a superstitious nature or not, people who wish that their performance will be positive could be encouraged to most re-create an environment familiar with past success.

The science behind rituals and familiarity support the concept that “state of mind accounts for 50 per cent of the variation in an individual’s performance.”<sup>110</sup> Rituals in particular enable an individual to *control* some aspects of their surroundings, which can have follow-on positive effects such as reduced stress and increased self-confidence and focus.<sup>111</sup> Many studies support the qualitative improvement in individual performance when placed in a more familiar environment and stress is reduced. For the purpose of evaluating the benefit of ritual and familiarity to a group setting, one can consider the statistics of home-field victories from the four major North American professional sports leagues.

In the most recent National Hockey League season (2012), 12/15 teams in the Eastern Conference had more wins than losses when playing at home. In the Western Conference, 14/15

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<sup>109</sup> Zachary D. Rymer, “The 25 Strangest Rituals in Sports,” *Bleacher Report*, 18 November 2010, <http://bleacherreport.com/articles/521720-the-25-strangest-rituals-in-sports#/articles/521720-the-25-strangest-rituals-in-sports/>.

<sup>110</sup> Peter Clough and Doug Strycharczyk, *Developing Mental Toughness: Improving performance, wellbeing and positive behaviour in others*, (Philadelphia: Kogan Page Limited, 2012), 22.

<sup>111</sup> *Ibid*, 21.

teams had a winning record when playing at their home arena. Out of all NHL teams, only 7/14 teams in each conference had winning records on the road. Throughout the 2012 NBA season, 11/15 teams in the Eastern Conference had a winning record at home, and only 4/15 had a winning record on the road. In the Western Conference, 11/15 teams had a winning record at home, and only 4/15 had a winning record on the road. In the NFL, 12/16 teams in the National Football Conference (NFC) had a .500 record or better at home and only 8/16 had a .500 record or better on the road. In the American Football Conference (AFC), 11/16 teams had a record of .500 or better at home and only 7/16 teams had a record of .500 or better on the road. Major League Baseball also showed a bias for home victories as 9/15 teams in the American League had winning records at home while 7/15 teams had winning records on the road. In the National League, 11/15 teams had winning records at home and only 5/15 teams ended the year with a winning record on the road. In each of the four major North American professional sports leagues, there was a significant correlation between a familiar environment and increased performance.

The statistics for home wins from the NBA, NHL, NFL, and MLB show the success of an athletic group in a familiar / comfortable environment. Home games are generally more predictable in that athletes and coaches are well aware of the common routine that exists for host teams on game day. People do not need to ask questions such as “where is the locker room?” and “what time is warm-up?” and therefore, they can concentrate their focus on the competition. Most military trades attempt to eliminate unnecessary distractions by providing members with tools such as checklists. Pilots of every fleet in the RCAF rely on checklists for the majority of standard procedures and minor emergencies on the airplane. A checklist allows for a predictable method of approaching a situation, largely isolated from the environmental factors. By using a

checklist, pilots are placing themselves in a more familiar context and increasing focus on the task at hand. Some units even paint the name of the Aircraft Captain just below the aircraft canopy in order to increase the level of familiarity and comfort of the pilot before an operational mission. Although the action of painting a name on a canopy is a minor one, it can have the subconscious reassuring effect on a pilot such as thinking, “I’ve been here before, and I know what to do.”

Given that ritual behaviour is evident in sport and a military environment, the question that needs to be asked is “are there aspects of one that can be leveraged in the other?” If one subscribes to the common belief that human beings are creatures of habit, the answer is “yes”. Scientists have studied the phenomena of habits and discovered that the human brain can actually operate very effectively using routine physical actions to aid in performance. During any activity, the brain creates memories from the human senses and stores *chunks*<sup>112</sup> of this information in the basal ganglia portion of the brain. As the physical action is repeated, the brain relies less on human senses and memory and more on the stored chunks of information in the basal ganglia. In effect, when executing an action that has been repeated many times, the brain is working less – reserving its capacity to process unfamiliar information. This theory explains why some people with amnesia can remember basic tasks such as brushing their teeth even when they can not remember the name of their spouse.

More than any other activity, sport provides a convenient and structured atmosphere to develop habits. The habits to make decisions, lead and follow team members, or prioritize tasks in complex situations can be practiced and developed through sport. A regular fitness regime is a healthy habit which is encouraged by military units through daily fitness activities. The ability

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<sup>112</sup> Charles Duhigg, *The Power of Habit: Why We Do What We Do in Life and Business*, (New York: Random House Publishing Group, 2012), 18.

for soldiers to perform physical exercise and think tactically in a combat situation is improved when the physical requirements are second nature. For example, soldiers will not hesitate to rescue an injured soldier on the battlefield because they have trained to be able to lift another person and therefore are confident that they can perform the task. In rugby, players do not hesitate to ruck over other players because they are confident in their physical training. According to habit theory, both scenarios will utilize chunks stored in the basal ganglia to execute common tasks and permit other areas of the brain to focus on unfamiliar environmental factors. The mindset of these two situations is very similar, and contributes to the argument that physical training and sport can contribute to the capacity of soldiers to think tactically in a combat environment and effectively deal with a challenging situation.

### **Dealing with Stress**

*Anyone can hold the helm when the sea is calm.*

— Publilius Syrus

The ability to deal with stress is one of the major determinants of mental toughness. A soldier and a competitive athlete can not avoid stress. Unlike many other professions, it is highly likely one will be exposed to *acute* or *chronic* stressors over the course of their normal activities. For that reason, it is important to be exposed to stress and coping strategies in order to properly manage the affects of a stressor when it occurs. It is therefore incumbent on forward-thinking organizations to train individuals for stressful situations. When individuals are prepared to face stressful circumstances, performance should remain consistent.

Both *acute* and *chronic* stressors can have a negative influence on individual performance. Acute stressors refer to a short-lived exposure, reaction, or condition usually

associated with a violent incident or accident.<sup>113</sup> Chronic stressors refer to an ongoing exposure, reaction, or condition such as a demanding work load. For a soldier, acute stressors can occur at any moment. Surprise contacts with the enemy during a patrol or an engine failure during flight operations are acute stressors that require immediate action in order to avoid a worsening situation. If individuals can not function efficiently in the face of such stressors, lives could be lost. The same risk exists for chronic stressors such as fatigue and worry while on operations. If excessive fatigue and worry retard the individual's ability to react to a dangerous situation, lives could be lost. In sport, the same concepts are present, however, the consequence is rarely as severe. Poor performance caused by stress is more likely to result in a loss or sometimes injury. Since stress has the potential to induce poor performance, military institutions have recognized the need to ensure soldiers are capable of operating in stressful situations. When the Canadian Forces deployed to Somalia, 28 per cent of respondents from one contingent were exposed to multiple deaths before their departure, and approximately one third of those admitted to still being affected by those experiences.<sup>114</sup>

Since the CAF experience in Somalia, the CAF has taken steps to mitigate the effects of stress before, during and after operations. Pre-deployment screening has been designed to identify individuals with pre-existing personal, adjustment problems or unresolved reactions from a previous deployment.<sup>115</sup> The concept that individuals require adequate stress management training before deployments is relatively new and has only been highlighted in Canada and the US after recent operations such as Afghanistan. In 2011, US Army General George Casey identifies that "soldiers can 'be' better *before* deploying to combat so that they will not have to

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<sup>113</sup> Maureen Dollard, Helen R. Vinefield, Anthony H. Winefield, *Occupational Stress in the Service Professions*, (London: Taylor & Francis, 2003), 6.

<sup>114</sup> George E. Kearney and Mark Creamer, *Military Stress and Performance: The Australian Defence Force Experience*, (Victoria: Melbourne University Press, 2003), 12.

<sup>115</sup> *Ibid.*, 12.



‘get’ better *after* they return.<sup>116</sup> It has been widely reported in Canada that the negative effects of stress from a combat environment can be debilitating - depression, hostility, substance abuse, family violence, anxiety disorders and post traumatic stress disorder (PTSD).<sup>117</sup> The considerable rehabilitation costs and individual hardship resulting from cases of PTSD has proven the case for robust pre-deployment stress management training.

During the deployment, significant funding is available for personnel support initiatives such as internet access, recreation equipment, and national television. The deployment length is also considered in order to limit the potential of chronic stressors emerging from isolation or family challenges. Post-deployment, interviews with the mental health staff are normally scheduled for 3-4 months after the soldier returns home in order to be able to assess if there are any lingering effects from the deployment. Such a comprehensive program seeks to identify individuals suffering from stress and offer mechanisms to mitigate the negative affects of stress. Hockey Canada is another forward-thinking organization in the field of stress management and performance. It is currently mandatory for all coaches and parents to follow an online course regarding safety, stress and expectations management. Awareness of the effects of stress and possible stressors is a critical first step to controlling the players in a competitive environment.

In addition to the stress awareness programs, the field of sport psychology offers insight into stress management and performance that pertains equally to a military environment. Unique to physically demanding professions, sport psychologists assess both the mental and physical aspects of anxiety or stress and how it can result in positive or negative performance.<sup>118</sup> In

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<sup>116</sup> Committee on the Assessment on Ongoing Efforts in the Treatment of Posttraumatic Stress Disorder, *Treatment for Posttraumatic Stress Disorder in Military and Veteran Populations*, (Washington: The National Academies Press, 2012), 176.

<sup>117</sup> George E. Kearney and Mark Creamer, *Military Stress and Performance: The Australian Defence Force Experience*, (Victoria: Melbourne University Press, 2003), xiv.

<sup>118</sup> *Ibid.*, 32.

athletics, competition anxiety is not viewed as purely negative with respect to performance, rather it is a “natural process in elite sport”<sup>119</sup>, signifies the importance of the event, and actually helps to increase the levels of endorphins in the body to enhance performance. Coping strategies such as relaxation techniques, breathing control and positive thought control can help to focus the anxious feelings towards positive performance. Military snipers use breathing control as a fundamental technique to focus their actions and enhance performance.

Subconsciously, stress and competition anxiety is managed during any athletic contest. Individual activities such as long distance running require the runner to monitor heart rate and breathing habits in order to find an ideal pace. Team sports such as hockey or soccer can induce competition anxiety many times throughout the game such as during a face-off, break-away or a corner kick. Participation in sport and fitness activities can therefore encourage soldiers to practice stress management techniques which are transferable to the field of battle. Given the similarities between sport and combat outlined previously in this paper, sport can be used to augment military training with very little deviation from doctrinal beliefs. It is then the role of military leadership to utilize sport as realistic training to manage stress, anxiety, and enhance the performance of the group when faced with challenging situations.

### **SPORT AND A WARRIOR CULTURE**

*War is the realm of physical exertion and suffering. These will destroy us unless we can make ourselves indifferent to them and from this birth or training must provide us with a certain strength of body and soul.*

— Clausewitz

This quote from Clausewitz accurately describes the unique characteristics required of a warrior. The warrior culture commits to the physical demands of the task, the hardships that may

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<sup>119</sup> Ibid., 36.

have to be endured, and the necessity to operate in a cohesive unit to achieve success. This culture is motivated by both intrinsic and extrinsic influences. Intrinsic motivation is dependent on the individual experiences, upbringing, and beliefs while extrinsic motivation is derived through socialization and training.<sup>120</sup> This section will focus mainly on the extrinsic motivational benefits of sport which can help to develop a warrior culture.

### **How Sport Creates Cohesion in a Warrior Culture**

Cohesion is a multi-dimensional concept that encourages group performance. Cohesive units have been found to: work harder, appear happier, make sacrifices, and have higher levels of interaction than non-cohesive units.<sup>121</sup> Cohesion contributes to performance by enhancing efficiency, motivation, discipline, flexibility, and the establishment of joint lines of action among group members.<sup>122</sup> There are two types of cohesion: task cohesion and social cohesion. Task cohesion is the degree to which members of a group work together to accomplish a common goal, whereas social cohesion is the degree to which individuals enjoy being members of the group and interacting with each other.<sup>123</sup> Within a warrior culture, both task and social cohesion are extremely important.

Participation in sport contributes to task and social cohesion. Sport mimics military operations in that a good team will see the need to work together to accomplish a common goal. In a game of soccer, players understand that it is impractical for any one individual to try to run down the field with the ball and score all by himself/herself. Naturally then, players will assume

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<sup>120</sup> Christopher Coker, *The Warrior Ethos: Military Culture and the War on Terror*, (New York: Routledge, 2007), 5.

<sup>121</sup> Stewart Cotterill, *Team Psychology in Sports: Theory and Practice*. (New York: Taylor & Francis, 2013), 65.

<sup>122</sup> Thomas W. Britt et al., *Military Life: The Psychology of Serving in Peace and Combat, Volume 1* (Westport: ABC-CLIO, 2006), 199.

<sup>123</sup> Stewart Cotterill, *Team Psychology in Sports: Theory and Practice*. (New York: Taylor & Francis, 2013), 66.

positions on the field that encourage efficient movement of the ball with the objective of scoring on the other team. In this case, the players are exhibiting task cohesion.

Evidence of social cohesion is more difficult to measure due to the unique personal dynamics that can be at play within any group. However, it is important to note that social cohesion is an evolution that relies on leadership and consistent training for maximum development. Group success and familiarity contribute to greater social cohesion. Conversely, cohesion is decreased when the pattern of social relationships is disturbed through excessive turbulence, when there is a change in organizational structure, or if that structure is made less meaningful due to lack of group success in achieving its goals or mission.<sup>124</sup> Activities as simple as intersection hockey can help realize aspects of social cohesion within a military unit.

Sport is especially critical to encourage cohesion during peace time. As indicated above, cohesion requires consistent consideration in order to achieve success. Periods where a military unit is not deployed or field training is absent are perfect opportunities to substitute sport to maintain cohesion in a warrior culture. Cohesion created through sport and cohesion through military training is not exclusive, but they are complementary. Research has shown that the experiences learned from activities such as the soccer game described above can be easily imported into the warrior culture of the unit, thus improving unit cohesion and performance.<sup>125</sup>

### **The Importance of Teamwork to a Warrior Culture**

In *The Sport Psych Handbook*, teamwork is defined as “cooperative or coordinated effort on the part of a group of persons acting together as a team or in the interests of a common

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<sup>124</sup> Thomas W. Britt et al., *Military Life: The Psychology of Serving in Peace and Combat, Volume 1* (Westport: ABC-CLIO, 2006), 199.

<sup>125</sup> J. B. Patnaik, "Organizational Culture: The Key to Effective Leadership and Work Motivation," *Social Science International* 27, no. 1 (2011): 80.

cause.”<sup>126</sup> In a combat environment, precise coordination between artillery, armoured, and infantry soldiers allows for the maximum impact of firepower and ground forces on an enemy position. Failure to coordinate weapons or timings in such a situation can result in death to friendly forces. In peacekeeping operations, it has been found that “mastering interagency cooperation is fundamental”<sup>127</sup> to the successful execution of the peacekeeping mandate. For a military force, development of such essential abilities as cooperation and working with others is so integral to group success that it can not be limited to exercises or operations alone. Luckily, cooperation and coordination can be practiced through sport.

Several studies have proven the link between teamwork and enhanced group performance. One of the earliest studies in this field was by Morton Deutsch in 1949. He challenged two groups of college students to assemble puzzles over a period of five weeks. One group was cooperative and was given the guidance that the team would be rewarded for success. The other group was told that there would be a reward for the individual who assembled the most puzzles. In the end, the cooperative group was found to share information and collaborate on their tasks, which resulted in more puzzles completed than the competitive group.<sup>128</sup> Although puzzle solving is not really considered a sport, the study is a quantifiable result which proves the idea that teamwork results in greater productivity. The same principles can therefore be applied to more physically demanding sports. Most champion professional sports teams will attest to the fact that teamwork and cooperation played a key role in their victories. Those teams with

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<sup>126</sup> Shane Murphy, *The Sport Psych Handbook*, (Champaign: Human Kinetics, 2005), 172.

<sup>127</sup> Shane Murphy, *The Oxford Handbook of Sport and Performance Psychology*, (Oxford: Oxford University Press, 2012), 314. From Mendall and Bradford (p.6)

<sup>128</sup> *Ibid.*, 312.

controversy and jealousy – although they may be talented – rarely win championships.<sup>129</sup> A cooperative group mentality is therefore an asset to a warrior culture.

When properly organized, team sports are inclusive and non-discriminatory. In a military unit, individuals are posted in and out of the unit on a regular basis. Newcomers to the unit will not have the shared experiences of the rest of the group. Good leaders will promote team-building within a unit in order to nurture common beliefs and increase group confidence. Team sports are ideal team-building activities. Sports can be “an opportunity to celebrate human achievement and excellence beyond the narrow boundaries of ethnicity, race or nationality.”<sup>130</sup> The primary goal of team-building is just that – to remove disruptive barriers and allow a group to function more efficiently<sup>131</sup> – laying the ground work for success in future complex situations.

The teamwork that is developed on the sports field is directly transferable to life in a military unit. The principles of cooperation and coordination do not change. Additionally, the expertise in the mental and physical realm that individuals gain from sports activities independent of the military organization can influence the culture of the organization as a whole.<sup>132</sup> Expertise that members bring into a military unit can be easily shared in a cooperative environment where teamwork is emphasized. The opportunity for learning through teamwork is far greater than if learning is limited to instruction or individual experience.

### **The Importance of Sport to Leading a Warrior Culture**

*One man in a field is not a warrior.*

- Russian Proverb

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<sup>129</sup> For example, the 2013 NY Yankees have the highest payroll in baseball and very talented players, yet recent controversy and dissent among the players has prevented them from winning enough games to make the playoffs.

<sup>130</sup> Racism in Sport,

<sup>131</sup> Shane Murphy, *The Oxford Handbook of Sport and Performance Psychology*, (Oxford: Oxford University Press, 2012), 320.

<sup>132</sup> J. B. Patnaik, "Organizational Culture: The Key to Effective Leadership and Work Motivation," *Social Science International* 27, no. 1 (2011): 80.

It has been emphasized in this paper that sport is important for military leaders to use as an instrument for discipline, development, and productivity of a military unit. Writ large, military leaders understand the benefits of sport and will continue to promote the value of within their units. It should also be noted, however, that the structure and delivery of a sport program can have a direct impact on the benefit to the individual soldier. For example, a game of shinny hockey, while fun, mainly serves to reinforce skills and attitudes already exhibited by an individual. Leaders can maximize the cognitive and physical benefit of the game simply by organizing a competitive game with another local unit. If the activity is well-planned and thoughtfully managed,<sup>133</sup> gains can be revealed in multiple domains – physical fitness, discipline, teamwork, and organizational skills.

Ok, so what about the value of sport for the leader in a warrior culture?

For the leader, participation in sport is an occasion to display the hard work, fair play, sportsmanship, and teamwork that is expected from every soldier. Apart from the battlefield, the sports arena is the closest opportunity that leaders will have to ‘fight’ alongside their soldiers and truly lead by example. *Leadership in the Canadian Forces: Doctrine* encourages Officers and NCM leaders to take advantage of leadership roles and professional development opportunities to ensure that they will be ready, confident, and able to lead.<sup>134</sup> There is no better way to improve leadership skills and promote a warrior culture than through practice.

The benefits to participating in team sports for the leader do not stop with leadership training. Leaders who consistently participate in sports with their soldiers will motivate their team by encouraging open lines of communication and demonstrating common goals and

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<sup>133</sup> Peter Donnelly, "From War without Weapons to Sport for Development and Peace: The Janus-Face of Sport." *The SAIS Review of International Affairs* 31, no. 1 (2011): 73.

<sup>134</sup> Department of National Defence, A-PA-005-000/AP-003, *Leadership in the Canadian Forces: Doctrine* (Ottawa: DND Canada, 2005), 19-20.

interests.<sup>135</sup> Leadership through sport allows the leader to develop a more personal relationship with team members and can display social support for the welfare of subordinates in a more social setting. In sport, it has been proven that support aimed at promoting the welfare of athletes leads to enhanced performance.<sup>136</sup>

It is critical that Army leaders be agile, multiskilled pentathletes who have strong moral character, broad knowledge, and keen intellect. They must display these attributes and leader competencies bound by the concept of the Warrior Ethos.<sup>137</sup>

In short, task-oriented<sup>138</sup> leaders of military units should incorporate team sport into their training regiment. The dynamic environment of a sports competition tests the teamwork and cohesion of a unit. An evaluation of the unit can be made, not necessarily as it pertains to their skill, but how the group met and overcame challenges that they were faced with. Finally, it is an opportunity for the leader to provide guidance, control, and motivation in a combat-like environment.

## CONCLUSION

Throughout history, sport has been intertwined with military service and military training. This paper identified the similarities between team sports and military units. The physical, sociological, and psychological benefits of participation in sport were discussed in order to recognize opportunities to leverage sport training for the benefit of a military unit. Many parallels can be drawn from experiences in sport that relate to the Canadian military culture. In

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<sup>135</sup> Caron, Michelle. 2013. "Coaching - Motivating Young Athletes." *Sport Information Resource Centre (SIRC)*.

<sup>136</sup> Charbonneau, Danielle, Julian Barling, and E. Keven Kelloway, "Transformational Leadership and Sports Performance: The Mediating Role of Intrinsic Motivation," *Journal of Applied Social Psychology* 31, no. 7 (2001): 1522.

<sup>137</sup> Department of the Army, FM 6-22, *Army Leadership: Competent, Confident, and Agile* (Washington, DC, Headquarters, Department of the Army: 12 October 2006), Foreword.

<sup>138</sup> Karlene Sugarman, *Winning the Mental Way*, (Burlingame: Step Up Publishing, 1999), adaptation found online at : <http://www.psywww.com/sports/leader.htm>.



particular, the CAF leadership principles compare favorably with lessons learned through amateur and professional sport and the commonalities in the mindset and actions of athletes and soldiers support the concept of a sport-military paradigm.

It is the author's hope that by identifying the similarities in sport and military culture, increased attention will be paid to the ability of sport training to enhance the performance and effectiveness of military groups. As the operational tempo of the CAF slows, and budgets for field training are reduced, it will be incumbent upon leaders to seek economical and pertinent training opportunities. Team sport is an extremely viable option to enhance current military training.

What drives a person to undertake a morning jog on any spring morning in Canada is a fair question, but to athletes and soldiers, the question is simply rhetorical. The morning jog represents discipline, fitness, commitment, and team loyalty. Both athletes and soldiers know that they have an obligation to their colleagues and supporters to improve themselves physically and mentally. The act of a morning jog is simply a physical representation of a deeper commitment to personal growth and development. Perhaps that is why runners wave at each other.

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