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## REALITIES OF BATTLE: FIGHTING POWER, SOLDIER PSYCHOLOGICAL DEFENCE

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**JCSP 37**

**Master of Defence Studies**

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**PCEMI 37**

**Maîtrise en études de la  
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PSYCHOLOGICAL DEFENCE**

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## ABSTRACT

Combat is conducted on both the physical plane and the psychological plane, casualties will occur in both. Through the 20<sup>th</sup> century the understanding of psychiatric casualties as a result of operations evolved, moving from problems of the abnormal mind in normal times to problems of the normal mind in abnormal times. The psychological aspect of operations is at least conceptually understood throughout Canadian Armed Forces doctrine starting with the profession as whole, through the leadership of individuals and into the Army.

To address the challenge the Canadian Armed Forces has turned to psychological resilience. Currently there is no conclusive evidence that ‘resilience’ programs work but nor, however, is there evidence that ‘resilience’ programs don’t work either. Although resilience as a process has a place in military training and education the concept of ‘bouncing back’ is not enough. Psychological hardiness, also known as cognitive hardiness is a personality style or trait that is comprised of related general dispositions that relate to a number of aspects of Canadian military doctrine.

A psychological defence model based on doctrine and supported by psychology would enable soldiers personally and collectively to willingly withstand hardship and danger, overcome fear, and act resolutely against an opponent. So a new approach needs to be considered which looks at resilience and hardiness in a supplementary and complimentary manner and which also includes physical fitness as this is the foundation for the mental and psychological components. A complete Soldier Psychological Defence system, reflective of the realities of battle and supporting Canadian Army fighting power needs to be examined as the doctrinal model for defence in the psychological plane.

## INTRODUCTION

Over the last number of years, certainly since 2008, the Canadian Armed Forces (CAF) and the Canadian Army (CA), in particular have focused on resilience and resilience training to address a leadership concern regarding the number of post-traumatic stress disorder (PTSD) cases or operational stress injury (OSI) cases. 28% of the 6,383 CAF soldiers who were screened after serving in Afghanistan reported that their health had deteriorated over the previous year. With regard to mental health issues, 14% reported symptoms of one or more of 6 common mental health problems.<sup>1</sup> National media attention at the time on CAF mental health and operational stress issues highlighted the perceived importance of psychological resilience as a means of protecting soldiers from injury. Despite the high demands of the contemporary operating environment and the high risk of OSI, there was no deliberate institutionalized psychological resilience training program within the CAF.

It was argued that, in light of high operational tempo and the spectrum of the contemporary operating environment (COE), it will be increasingly important that soldiers be able to deal with high mental and physical demands, stress, uncertainty, and operations in complex environments. High operational tempo, however, is nothing new and what is described here also describes military conflict throughout history. Soldiers' ability or inability to deal with the high mental and physical demands led to the argument that increased resilience was needed. Increased resilience was argued despite the lack of a uniform or accepted definition of Resilience and a lack of sufficient validation and an open acknowledgement that more research was required. As a result, in July 2008 the Army Training Authority (ATA)<sup>2</sup> directed staff to focus

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<sup>1</sup> Dr. Marc A. Zamorski, Briefing Note on the Findings of the Enhanced Post-Deployment Screening of Those Returning From Op Archer/Task Force Afghanistan as of 28 April 2008, 2.

<sup>2</sup> Maj J.M.L. Cyr and Capt J.N. Rickard, *Update on the Improvement of Soldier Psychological Resilience*, (Land Force Doctrine and Training System: Info Briefing Note for ATA, 14 Jul 2010).

their effort on both the deployment cycle and institutional training to improve the psychological resilience of CA soldiers, recognizing that the priority effort would need to be on pre-deployment training initially.

In January 2009, Armed Forces Council (AFC) directed the standardization of Canadian Forces (CF) Mental Health (MH) training, which soon focused all available CF MH training resources in support of CAF operations, particularly CAF land operations. At ATA request, and under the guidance and direction of the AFC-directed the CAF Mental Health and Education Advisory Committee (MH EAC), a pre-deployment training package entitled Road to Mental Readiness (R2MR) was developed in 2009 to increase the psychological resilience, or mental toughness, of military personnel deploying to operational theatres, by focusing on preparation for and mitigation of the stresses of operational deployments. The R2MR program was based on elements of existing training used by the US Navy Seals, United States Marine Corps, Sector Quebec Force Teareste (SQFT) Programme d'Entraînement sur la Résilience Militaire (PERM) and Land Force Central Area (LFCA) First Aid for the Warrior Mind (FAFWM). The main stress coping mechanism of R2MR is based on sports performance psychology. It applies goal setting, visualization, self-talk and arousal control (known as the “Big Four” countermeasures) to mitigate the body’s automatic physiological reactions in situations of extreme stress and fear with view to developing psychological resilience.<sup>3</sup>

This paper will argue that the CAF resilience training program which has been implemented was, and is, a narrow approach to addressing the challenges presented when operating in the COE with its high mental and physical demands, stress, uncertainty, and complex environments. In order to make this argument, the recent history of how Canada, the

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<sup>3</sup> Department of National Defence, *Senior Leadership Guide to Mental Health* (Gagetown: Land Force Doctrine and Training System, 2011), 12.

military in particular, has addressed mental health on operations and in combat will be reviewed. In part, the historical review will demonstrate that the current challenges with respect to soldier psychological wellbeing are not new. This will lead to an examination of current CAF and CA doctrine and the relationship between the application of combat power and human psychology. The examination of this relationship will provide the necessary background and context in which to consider resilience and what we mean when we use the term resilience leading to a defining of resilience. It will be argued that psychological resilience is the focus of “resilience” so one must understand what it and what it is not. Linked to this is the “Big 4” which remains to be validated, thus, the issues with the “Big 4” will be introduced along with the issues surrounding sports psychology upon which the “Big 4” are based. As sports psychology is a narrow focus, challenges with psychology in general will be raised to shape the context of the argument. This will lead back to Army doctrine and how it does, and could, address the human psychological dimension of modern high intensity operations. The concept of psychological hardiness will be introduced and explored further then linked back to doctrine and a new model for dealing with psychological stress will be considered, arguing that the psychological preparations and requirements for participation on operations is broader and deeper than just resilience.

## **CHAPTER 1 – WHY THE SURPRISE?**

The fact the CAF and CA leadership was concerned about the number of PTSD cases or OSI cases is somewhat understandable as they care about the health and welfare of their subordinates, the fact that the conduct of higher intensity operations resulted in a number or higher number of PTSD cases should not come as a surprise. As a result of war, starting with World War One through World War Two and Korea, into peacekeeping including Bosnia, right up to Afghanistan, the Canadian military has a history of dealing with psychological casualties as a result of conflict. Lessons were certainly learned during numerous previous conflicts regarding the management and treatment of psychological casualties so the findings out of Afghanistan should not really have been a surprise. Part of the cause for this may be the CAF and CA leaders do not really understand their own doctrine as illustrated by the view that there was no deliberate institutionalized psychological resilience training program within the CAF.<sup>4</sup> Canadian military doctrine speaks to the psychological elements of operations and conflict which should be taught as part of individual training and professional military education. To address the legitimacy of CAF leadership surprise regarding recent psychiatric casualties we need to look at the history of psychiatric casualties resulting from military conflict and what Canadian military doctrine say about the psychological component of operations in general, and conflict or major combat in particular.

### **Where we have come from?**

Militaries have been aware of the psychological impact of war on those involved for millennia. At least since ancient Greece, there have been attempts to address psychological problems medically. Like other areas of medicine, frequent war provided much opportunity for

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<sup>4</sup> Maj J.M.L. Cyr and Capt J.N. Rickard, *Toward Development of Psychological Resiliency Through Land Warfare Training*, (Land Force Doctrine and Training System: Info Briefing Note for Army Training Council, 2 April 2009), 1.



Greek physicians to witness psychiatric conditions brought about by fear. It is likely that they were quite aware of the range of battle shock psychiatric syndromes which have affected the soldier since the beginning of war.<sup>5</sup> Moving forwards in history, the Romans were no strangers to the psychological impact of war or how to deal with it. Greek medicine passed directly to Rome in later centuries, and when the Romans established the world's first military medical system, they staffed it with Greek physicians.<sup>6</sup>

The professional medical literature had linked war and mental disorders since at least the 17<sup>th</sup> Century, with army camp doctors using the term “nostalgia.” “By the early 1700s, some doctors reported that nostalgia was a prevailing condition in the armies of Europe and it continued to gain prominence in the literature in the wake of the French Revolution.”<sup>7</sup> In the 19<sup>th</sup> century terms used in the United States prior to “PTSD” include “soldier’s heart” during the Civil War era and “railway spine”, a British term, during the late 19<sup>th</sup> century.<sup>8</sup> By World War One, a much greater interest was taken in psychological injuries and there is certainly more recorded information regarding what happened and what was done about it even if today there is disagreement about the thinking at that time and what was being done.

“WWI is certainly the period in history when ‘modern’ warfare coincided with a ‘scientific’ psychiatry the endeavored to define diagnostic entities as we understand them today. Psychiatric casualties were reported very early in the war, in numbers that no one had anticipated.”<sup>9</sup> Quite early in the War, the term “Shell-shock,” became a very serious medico-

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<sup>5</sup> Richard A. Gabriel, *The Culture of War* (New York: Greenwood Press, 1990), 92.

<sup>6</sup> *Ibid.*

<sup>7</sup> Terry Copp and Mark Osborne Humphries, *Combat Stress In the 20<sup>th</sup> Century: The Commonwealth Perspective* (Kingston, ON: Canadian Defence Academy Press, 2010), 1.

<sup>8</sup> Michael P. Fisher and Terry L. Schell, *The Role and Importance of the ‘D’ in PTSD* (Santa Monica, CA: RAND Corporation, 2013), 3.

<sup>9</sup> Marc-Antoine Crocq, MD and Louis Crocq, MD, “From shell shock and war neurosis to posttraumatic stress disorder: a history of psychotraumatology,” *Dialogues in Clinical Neuroscience* 2, no. 1 (2000): 49.

military problem in the British Army as well as in the Armies of all the Allies.<sup>10</sup> Having to cope with and manage psychiatric casualties was a bit of a voyage of discovery for all the Armies in WWI and the Canadian Army was no different. Shell shock was seen as a functional neuroses and common medical opinion was that early treatment was best and that those suffering from it should be separated as early as possible from those suffering insanity.<sup>11</sup> It was also recognized that war neurosis or shell shock was not new but the magnitude of the problem made treatment for all problematic. What made this more challenging, based on thinking at the time, was the view that war neurosis was a highly infectious disease.<sup>12</sup> Treatment was further complicated by the argument that the symptoms could be treated but not the actual condition. If this was not complex enough, there was the issue of exhaustion that was “curable” by rest.<sup>13</sup>

In 1914 in Britain there was a commonly held view that sharply differentiated between madness and sanity and placed a heavy burden of guilt and shame on those who broke down.<sup>14</sup> Based on the experience of WWI, this view was being questioned within Britain as well as elsewhere. The War Office Committee of Enquiry into ‘Shell-Shock’ declared that ultimately shell-shock was no respecter of class or education: in modern warfare every man was liable to break down.<sup>15</sup> During the Committee’s Enquiry a commonly debated theme was the relationship between cowardice in battle and ‘shell-shock.’ After the war, there was a concern that among

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<sup>10</sup> Colin Russel, “The Management of Psycho-Neuroses in the Canadian Army,” *Journal of Abnormal Psychology* 14, no. 1-2 (April-June 1919): 27.

<sup>11</sup> Campbell Meyers, “The Canadian Soldier and Shell Shock,” in *Combat Stress In the 20<sup>th</sup> Century: The Commonwealth Perspective*, (Kingston, ON: Canadian Defence Academy Press, 2010).

<sup>12</sup> H. Goodman, “On the Treatment of Soldiers Suffering from War Neurosis,” *South African Medical Journal* 14 (1918-1919): 450-455.

<sup>13</sup> E.D. Adrian and L.R. Yealland, “The Treatment of Some Common War Neuroses,” *The Lancet* 189, no. 4893 (9 June 1917): 867-872.

<sup>14</sup> Ted Bogacz, “War Neurosis and Cultural Change in England, 1914-22: The Work of the War Office Committee of Enquiry into ‘Shell-Shock’,” *Journal of Contemporary History* 24, no. 2 (April 1989): 232.

<sup>15</sup> *Ibid*, 250.

the 3,000 soldiers convicted for cowardice, desertion or other crimes, of which 346 were executed, a considerable number were suffering from a war-induced mental illness.<sup>16</sup>

After World War One the interest in and study of, mental casualties continued, primarily focused on it from a disabilities perspective. The big question was whether or not mental casualties were truly disabled. “The determination of the cause of the disease in mental cases is a question which is not so easily or definitely answered as in physical disabilities.”<sup>17</sup> The key point here is that there was some form of care for veterans of World War One.

“The Federal government has been justly generous with the returned man, by providing practically unlimited facilities for the treatment of those physically and mentally afflicted. From a total enlisted strength of some half million men, there are at present just over one thousand psychopathic cases receiving hospital treatment, a comparatively small percentage, and Canada may well congratulate herself on this evidence of the stability of her manhood.”<sup>18</sup>

The obvious question arising from this is; were they actually treating all the casualties or just some of them? Regardless, something was be done to some degree for the at least some of World War One’s psychiatric casualties.

The modern understanding of psychiatric casualties resulting from combat can be traced to World War One. The number of articles published during the war illustrates the increase in information on what was done to deal with psychiatric casualties relative to previous conflicts. In addition, greater scientific rigour was applied to addressing the problem and treatment programs evolved throughout the war as the medical community learned more about the nature of psychiatric casualties. After the war, psychiatric casualties were not completely forgotten as the treatment and study of psychiatric casualties continued. Twenty years later, the work from

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<sup>16</sup> *Ibid*, 228.

<sup>17</sup> H. Dover, “Medical Board Work on Psychiatric Cases,” *Canadian Medical Association Journal* 10, no. 6 (June 1920): 544.

<sup>18</sup> R.H. Angrove, “Psychopathic Disorders Among Ex-Service Men,” *Canadian Medical Association Journal* 22, no. 4 (April 1930): 517.

World War One and the continued work and research in the inter-war period, provided a start point for dealing with psychiatric casualties in World War Two. The fact there were psychiatric casualties in World War Two did not come as a surprise to the military leadership.

Colonel Van Nostrand, the senior Canadian psychiatrist overseas had a number of very interesting observations regarding the state of psychiatry based on his experiences and observations of World War Two: “I am not convinced that psychiatry will ever solve the vast problem of the psychiatric breakdown of soldiers during war. It is my opinion that the methods now employed in the British, American and Canadian armies will not materially lower the incidence of psychiatric casualties in a fighting force.”<sup>19</sup> He also believed that there were a number of things the military believed were true but ignored in practice:

- An army’s killing power is not necessarily proportionate to its numerical strength.
- We fight our wars with the human material we have and not with what we think we would like.
- Although there are wide variations in the capacities of normal soldiers to withstand stress, every soldier has his breaking point, and if this is reached, he becomes a liability to his unit.<sup>20</sup>

At the beginning of WWII, George F. Boyer, M.D., presented his views on war neurosis based on his experience from WWI, “Terms that suggest no appeal to the conscious should be discouraged and abandoned and, for this reason, shell-shock, which was based on the presence of organic changes, is a term to be greatly regretted and to be avoided.”<sup>21</sup> It had become understood that soldiers who broke down after extended exposure to battle were neither cowards

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<sup>19</sup> Terry Copp and Mark Osborne Humphries, *Comat Stress In the 20<sup>th</sup> Century...*, 154.

<sup>20</sup> Terry Copp and Mark Osborne Humphries, *Comat Stress In the 20<sup>th</sup> Century...*, 155.

<sup>21</sup> George F. Boyer, “The Psychoneuroses of War,” *The Canadian Medical Association Journal* 43, no. 1 (July 1940): 59.

nor weaklings but normal individuals who could no longer cope with the stresses of war.<sup>22</sup> By WWII controversy surrounded not the inevitability of psychiatric casualties but the extent to which they could be minimized by selection, training, morale, and leadership.<sup>23</sup> By the end of WWII it had been learned that psychiatric casualties were an inevitable consequence of life-threatening hostilities, they could not necessarily be screened out, the number of casualties would depend on the individual, their unit and combat environment factors, and with the proper intervention, most would return to combat duty.<sup>24</sup> One of the most important lessons of WWII was that it required psychiatrists “to shift attention from problems of the abnormal mind in normal times to problems of the normal mind in abnormal times.”<sup>25</sup>

Korea was the first major conflict after World War Two with only a very short gap between the two. As result, the lessons learned regarding the management and treatment of psychiatric casualties had not been lost. “Combat fatigue,” as it was termed by U.S. forces, or “battle exhaustion,” as it was known to Commonwealth troops, proved to be an important feature of Korean War psychiatry.<sup>26</sup> For the U.S. military, the lessons learned from WWII were embodied in a table of organization and equipment (TOE) unit, the mobile psychiatric detachment which were very effective in Korea.<sup>27</sup> Many of those who had combat fatigue or battle exhaustion, once dealt with, quickly returned to duty, as had been the case during World War Two when the medical community also had program for dealing with fatigue or exhaustion

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<sup>22</sup> Hans Pols and Stephanie Oak, “War & Military Mental Health, The U.S. Psychiatric Response in the 20<sup>th</sup> Century,” *American Journal of Public Health* 97, no. 12 (December 2007): 2135.

<sup>23</sup> Edgar Jones and Stephen Ironside, “Battle Exhaustion: The Dilemma of Psychiatric Casualties in Normandy, June-August 1944,” *The Historical Journal* 53, no. 1 (2010): 109.

<sup>24</sup> Franklin D. Jones, “Psychiatric Lessons of War,” in *War Psychiatry* (Washington D.C.: Office of the Surgeon General, 1995), 15-16.

<sup>25</sup> Hans Pols and Stephanie Oak, “War & Military Mental Health...,” 2135.

<sup>26</sup> Edgar Jones, “Army Psychiatry in the Korean War: The Experience of 1 Commonwealth Division,” *Military Medicine* 165, no. 4 (April 2000): 258.

<sup>27</sup> Department of the Army, FM 22-51, *Draft Leader’s Manual for Combat Stress Control* (Washington D.C.: Department of the Army, 2004), 1-4.

so many did not become psychiatric casualties. During the Korean War, the appropriate use of the principles of combat psychiatry resulted in a return to battle of up to 90% of the combat psychiatric casualties.<sup>28</sup>

Probably the most notable post World War Two conflict with respect to mental health was the Vietnam War. Its big contribution to military psychiatry was the introduction of the concept of post-traumatic stress disorder or PTSD. Formal recognition of PTSD resulted in part from years of advocacy and collaboration among psychiatrists and several groups representing victimized or traumatized individuals, including groups representing Vietnam veterans.<sup>29</sup> Prior to the inclusion of PTSD in the *Diagnostic and Statistical Manual of Mental Disorders* (DSM)-III, war veterans encountered substantial difficulty obtaining treatment for problems stemming from exposure to traumatic events. Classifying PTSD as a disorder facilitated the receipt of benefits designed to offset the financial impact of disabilities associated with the disorder.<sup>30</sup>

In 1991 the Canadian Army Command and Staff College, then known as the Canadian Land Forces Command and Staff College, produced a reading package as part of the curriculum titled, *Realities of Battle, Battlefield Stress*. A quick review of the table of contents would strongly suggest that there was a good understanding of the psychological reality of modern or current operations. Reading through the articles and extracts reinforces the fact that intellectually the Army was aware of war's psychological reality. The following is the first paragraph of the introduction to, *Realities of Battle, Battlefield Stress*:

War involves killing and death. In battle men fear both their own death and injury and the act of killing or injuring. Despite the most sophisticated training devices and careful planning, we cannot conduct exercises in which our soldiers try to kill one another and

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<sup>28</sup> Franklin D. Jones, "Psychiatric Lessons of War,"..., 16.

<sup>29</sup> Michael P. Fisher and Terry L. Schell, *The Role and Importance of the 'D' in PTSD...*, 3.

<sup>30</sup> Department of National Defence, A-PA-005-000/AP-001, *Duty with Honour, The Profession of Arms in Canada 2009* (Ottawa: DND Canada, 2009), 5.

therefore we cannot represent fully that key factor in both leadership and morale in war – fear.<sup>31</sup>

For the most part the primary focus of the readings is the prevention of psychiatric casualties rather than the management of them as illustrated by the title of Annex E, “Training for Battle Shock.”<sup>32</sup> Annex A addresses psychological factors in war arguing psychiatric casualties can be prevented through discipline, leadership, man management and a sane attitude towards fear.<sup>33</sup> Annex B reinforces Annex A concluding morale has four basic factors; leadership, discipline, comradeship and self-respect.<sup>34</sup> Annex C is taken from the British Army in 1983 and outlines the management of combat stress identifying three types of combat stress; battle fatigue, battle shock and psychiatric casualties.<sup>35</sup> The bulk of the Annexes (D, G, J, K, and L) look at experiences from WWII regarding the issue of battlefield stress and lessons identified from WWII.

Annex F is about the Soviet realization of the value of exploiting the effects of stress on those they oppose. “The mental resilience of the defender may be reduced still further by the creation of uncertainty and lack of confidence.”<sup>36</sup> At the beginning of the reading package, in the introduction Major-General F.M. Richardson is quoted discussing fear.

It must be TAUGHT that fear is the NORMAL REACTION to danger and is felt by ALL normal men. A brave man is NOT one who feels no fear, but one who though afraid, goes on with his job. Fear, like trench foot and lice, is a normal battle risk to be faced and overcome.<sup>37</sup>

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<sup>31</sup> Canadian Land Force Command and Staff College, “Realities of Battle, Battlefield Stress” (RB/01/P Part 5, October, 1991), 1-1.

<sup>32</sup>*Ibid*, 1D-1.

<sup>33</sup>*Ibid*, 1A-1 – 1A-3.

<sup>34</sup>*Ibid*, 1B-1 – 1B-2.

<sup>35</sup>*Ibid*, 1C-1 – 1C-3.

<sup>36</sup>*Ibid*, 1F-3.

<sup>37</sup>*Ibid*, 1-1.

The titles are very telling in and of themselves and much, if not all, of the material is still applicable today. In fact, some of it will be introduced later in the paper for consideration regarding a different approach than that currently being advocated.

In sum, there is a fairly extensive history regarding the psychological impact of combat on soldiers, and more importantly an awareness of the impact on soldiers. As far back as the Classical Period, the psychological impact of combat was known and was dealt with by both the Greeks and Romans. The psychological impact of combat was addressed in medical literature as early as the 17<sup>th</sup> Century. As conflict became more brutal as a result of technological efficiency in creating death and destruction there is also the development of specific terminology to identify the psychiatric effects of exposure to combat starting with “soldier’s heart” during the U.S. Civil War. With World War One the treatment of psychiatric casualties made significant advancements which carried through the inter-war period to be further refined in World War Two. With the Vietnam War, there is a formal recognition of the psychological impact of combat, distinct to that of other environments, with the adoption of the term PTSD. This was not lost on the Canadian military, in particular the Army, which developed an extensive education package for junior officers focused on dealing with the psychological shock of combat and how psychiatric casualties could be dealt with. So although the people in the military may have forgotten the combat had a psychological impact that would cause psychiatric casualties, the institution itself, in the form of doctrine had not forgotten and many of the lessons learned throughout the history of military conflict can be found embedded in doctrine.



## CHAPTER 2 – WHAT DOES DOCTRINE SAY?

There was, and is, an extensive body of knowledge within the military regarding psychology or aspects thereof, and its importance within the military. We start with *Duty with Honour*. Under ‘Canadian Values’ *Duty with Honour* speaks to what members of the profession of arms are expected to deal with psychologically. “Incorporated in the military ethos, Canadian values mandate members of the Canadian profession of arms to perform their tasks with Humanity. Members of the Canadian Forces understand the inherent violence of armed conflict, characterized at an extreme by death and destruction.”<sup>38</sup> By implication then, they should have been educated about the shock of conflict. Included under ‘Canadian Military Values’ is courage, which speaks to the psychological challenges, and in turn the expectations of the profession of arms. “Courage is a distinctly personal quality that allows a person to disregard the cost of an action in terms of physical difficulty, risk, advancement or popularity.” “Frequently, it is the renunciation of fear that must be made not once but many times.”<sup>39</sup> The language used here is strong and deliberately so if soldiers are to be properly prepared for operations especially combat, speaking to fear, extreme danger, hardship, inherent violence, death and destruction. By implication, in order to operate or function in such an environment one needs to be psychologically strong.

Linked to *Duty with Honour* there are a series of CAF doctrine publications, including a number of leadership doctrine publications. *Leadership in the Canadian Forces – Leading People* speaks to fighting spirit and courage re-emphasizing what is in *Duty with Honour* but it also introduces fear and the emotional plane which ties in with Army Doctrine. Although fear is touched on in *Duty with Honour*, *Leading People* goes into considerably more detail and speaks

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<sup>38</sup> Department of National Defence ... *Duty with Honour*..., 31.

<sup>39</sup> Department of National Defence ... *Duty with Honour*..., 33.

very frankly about it. “In the simplest of terms, fear is an emotion, a powerful emotion that can quickly debilitate individuals, teams and whole units. Fear can become contagious and frequently leads to panic.”<sup>40</sup> This is even stronger language than that used in *Duty with Honour*, and if taught throughout the CAF and CA Individual Training and Education (IT&E) systems, should have gone some way to psychologically preparing soldiers for operations. Despite what is written in doctrine and despite what the military tries to train and educate its soldiers in, not all of the training and education will be understood and applied. This means that, despite all of the understanding of the psychological impact of combat, and even if everyone learned what could be taught, there will still be psychiatric casualties as a result of combat. It is clear that the military leadership have been educated about the psychological impact of combat, in turn they should have been prepared for psychiatric casualties as a result of combat just as they were prepared for physical casualties, yet it still came as a surprise. Perhaps the problem is that existing doctrine tells military leadership what to expect but not how to train and/or educate its soldiers on how to cope with and deal with combat stress. As will be developed later in the paper, there is no magical solution for dealing with the psychological challenges of military operations.

The same message follows through in *Canada's Army*. It starts with the Army's moral and physical components, “Moral components are those spiritual, psychological, intellectual and sociological factors which enable soldiers to overcome fear and defeat the enemy in battle or successfully carry out a mission.”<sup>41</sup> *Canada's Army* goes further about overcoming fear and defeating the enemy, reinforcing the message both within *Canada's Army* as well as in CAF

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<sup>40</sup> Department of National Defence, A-PA-005-000/AP-005, *Leadership in the Canadian Forces – Leading People* (Ottawa: DND Canada, 2007), 10.

<sup>41</sup> Department of National Defence, B-GL-300-000/FP-000, *Canada's Army We Stand on Guard for Thee* (Ottawa: DND Canada, 1998), 38.

doctrine, when speaking about morale and esprit de corps. “A high level of morale among soldiers and *esprit de corps* within units enhances teamwork and enables soldiers personally and collectively to willingly withstand hardship and danger, overcome fear, and act resolutely against an opponent.”<sup>42</sup> Again, this is strong and deliberate language telling the Army what to expect but not necessarily how to deal with it. But the strongest language can be found in the section ‘War and the Professional Soldier’. “Although oriented to arms and the application of violence, in the same way that a physician is not a lover of sickness, the professional soldier is not a lover of war. Rather, the professional soldier is acutely aware of war’s horrors and of the need to be prepared for them.”<sup>43</sup> Based on the reaction to psychological casualties in Afghanistan one has to wonder how well trained and, more importantly, educated this awareness was. Regardless, there should have been no misinterpretation of the message being delivered.

From *Canada’s Army*, next in the doctrinal hierarchy is B-GL-300-001/FP-001, *Land Operations*. *Land Operations* defines fighting power as the ability to fight, consisting of three essential, inter-related components: a physical component: a moral component and an intellectual component. Fighting power is the means through which we resolve conflict. In accordance with *Land Operations*, the object of conflict is the imposition of one’s will on an opponent and to alter the opponent’s behaviour. The organized application of violence by physical force against a target’s capability is one means to that end and may be seen as a traditional application of combat power. However, other activities may be undertaken that engage and affect an opponent’s or another’s will to fight or to support a particular activity, for example, psychological operations.<sup>44</sup> Seen from this perspective, activities and their effects exist on two

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<sup>42</sup>*Ibid.*, 41.

<sup>43</sup>*Ibid.*, 37.

<sup>44</sup> Department of National Defence, B-GL-300-001/FP-001, *Land Operations* (Ottawa: DND Canada, 2008), 5-2.

planes, the physical and the psychological, and activities fall into two categories, physical activities and influence activities.

The physical plane comprises the physical objects, actions and effects in the battlespace. On the physical plane, conflict is often a clash between armed combatants. Activities on the physical plane and their direct effects are tangible and measurable.<sup>45</sup> The area of specific interest for this paper is the psychological plane which is described as:

The psychological plane constitutes the perception, understanding, motivation, conviction, emotions, commitment, and ultimately the will of individuals and groups. It may be referred to as the moral plane or cognitive plane. It represents the will that changes behaviour and enables individuals to overcome fear and adversity, as well as the cohesion that holds them together. It includes psychological aspects such as belief in a cause, indoctrination and judgement, as well as emotive responses such as patriotism, ethnicity, religious zeal, and *esprit de corps*. It also involves issues of self-interest.<sup>46</sup>

So the Army was and is aware of two aspects of combat; physical and psychological. If physical impacts were taken in stride why weren't the psychological?

The psychological environment expected on operations seems well understood in both CAF and CA doctrine. Likewise the psychological expectations are well understood at all levels starting with the CAF. Fighting spirit is defined in *Duty with Honour*.

Fighting spirit requires that members of the Canadian Forces be focused on and committed to the primacy of operations. They therefore strive for high levels of operational effectiveness and readiness, and are willing to engage in or support combat operations. It imparts to individuals the moral, physical and intellectual qualities necessary to operate in conditions of extreme danger, to endure hardship and to approach their assigned missions with confidence, tenacity and the will to succeed. Fighting spirit is especially important to act decisively — including the use of lawful, lethal force against an adversary — during combat operations.<sup>47</sup>

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

<sup>46</sup> *Ibid.*, 5-3.

<sup>47</sup> Department of National Defence ... *Duty with Honour* ..., 27.

The most pointed doctrine on the psychological challenges to be faced on operations in general, and combat in particular, is *Infantry Section and Platoon in Operations*, particularly when addressing leadership in combat.

The demands of combat place great responsibility on leaders. To prepare adequately for these demands it will not be enough to master the techniques of this publication. Leaders must demonstrate mental and physical robustness to mitigate the shock and fog of war. The leader who can consistently remain cool, calm and rational in the face of death is the person who will be turned to and admired the most. This presence of mind must be maintained by commanders in war and cultivated during times of peace.<sup>48</sup>

So *Infantry Section and Platoon in Operations* outlines the expectation of demonstrating “mental robustness” to mitigate the shock of war. It also talks to “presence of mind” and its cultivation. This indicates a clear understanding of the importance of the psychological plane.

*Infantry Section and Platoon in Operations* goes on to describe qualities required to achieve; Courage, Moral Courage, Extreme Determination, Force of Will and Boldness vs Caution or judgement. Force of Will is the most important with respect to the psychological plane. The ultimate aim of battle to destroy the enemy’s courage by annihilating their will to fight, largely facilitated by killing them. Battles can be won and lost in the hearts of men. Soldiers who possess a resilient force of will are going to win.<sup>49</sup> Again, this is strong language that clearly focuses on the psychological plane, in particular the phrase; “annihilating the enemies will,” while “resilient force of will” actually touches on the concept of resilience.

*Infantry Section and Platoon in Operations* also lists and touches on individually those things that will psychologically effect soldiers in combat and on operations; Chaos, Friction, Uncertainty, Loneliness & Comradeship and Fatigue.

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<sup>48</sup> Department of National Defence, B-GL-309-003/FP-001, *Infantry Section and Platoon in Operations* (Ottawa: DND Canada, 2013), 1-8.

<sup>49</sup>*Ibid*, 1-9.

Upon first contact with the realities of combat, soldiers will react to the experience with an array of emotions. There may be elation, fear and bewilderment. From an individual soldier perspective, the intensity, bloodshed and violence may lead to some feelings of the possibility of mission failure and fear of death. These feelings will change, improve or get worse, with the influence of leadership. Leaders must make these feelings improve. Strong, determined leadership will reduce the effects of the first shock and inertia. Weak and inconsistent leadership will add to the fears and bewilderment, and jeopardize the effectiveness of the unit.<sup>50</sup>

This is very strong language that should make very clear the reality expected in combat.

It is clear that the psychological aspect of operations is at least conceptually understood throughout CAF doctrine starting with the profession as whole, through the leadership of individuals and into the Army. The CA recognizes the reality as both an institution and on operations at all levels, taking it right down to those who directly apply violence at the personal level. Based on this extensive body of doctrine, the psychological realities of conducting operations in Afghanistan should have been well known and well understood. The fact that it would appear to have been a surprise to the leadership resulted in them looking for a solution. Furthermore, it would appear that they did not look to doctrine for a solution to the perceived problem, rather, since the psychological impact of combat resulted in psychiatric casualties they turned to psychology for the solution to address the psychological impact. The solution that the Psychologists offered was resilience, the development of a program to enhance soldier psychological resilience to the psychological impact of combat.

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<sup>50</sup>*Ibid*, 1-10.

### CHAPTER 3 – RESILIENCE

Currently in the CAF the solution or concept for addressing psychological shock on operations in general and in combat in particular, is by enhancing resilience. Before looking at the CAF approach to resilience it will be necessary to define resilience or understand what is meant when the term resilience is used. The subjective nature of resilience and how it could be applied will also be addressed in an attempt to put it into a more objective context. Once explained, resilience from a CAF perspective can then be examined in more detail.

In general terms psychological resilience is, “the individual’s tendency to cope with stress and adversity.” One view of how it works is “bouncing back” to previous normal state or not showing negative effects.<sup>51</sup> This perspective presents resilience as being a process of returning one’s previous state. Another view is that resilience includes ‘post-traumatic growth’ or ‘steeling effects’ where experiencing adversity leads to better functioning<sup>52</sup>. Clearly there is a whole field of study regarding psychological growth which involves much more than resilience. Furthermore such a definition sees resilience as an outcome rather than a process. Psychological resilience is most commonly understood as a process and not a trait of an individual. The mistaken assumption of a trait of the individual is referred to as “resiliency.”<sup>53</sup> This is a common mistake and leads to a reinforced misunderstanding of what resilience is. Psychological resilience is more than an individual personality trait, it is a process involving interaction among an individual, that individual’s life experiences, and current life context.<sup>54</sup>

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<sup>51</sup> A. S. Masten, “Ordinary Magic: Lessons from Research on Resilience in Human Development,” *Education Canada* 49, no. 3 (2009): 28.

<sup>52</sup> M. Rutter, “Developing Concepts in Developmental Psychopathology,” in *Developmental Psychopathology and Wellness: Genetic and Environmental Influences* (Washington, DC: American Psychiatric Publishing, 2008), 3.

<sup>53</sup> A.S. Masten, “Resilience in Individual Development: Successful Adaptation Despite Risk and Adversity,” in *Risk and Resilience in Inner City America: Challenges and Prospects* (Hillsdale, NJ: Erlbaum, 1994), 3.

<sup>54</sup> Lisa S. Meredith, Cathy D. Sherbourne, Sarah Gaillot, Lydia Hansell, Hans V. Ritschard, Andrew M. Parker, Glenda Wrenn, *Promoting Psychological Resilience in the U.S. Military* (Santa Monica, CA: RAND, 2011), xiii.

There is a lack of consensus regarding an operational definition of resilience,<sup>55</sup> which is why there are studies and definitions of resilience as a process, an outcome and a personality trait. A technical report from Defence R&D Canada on Psychological Resilience suggested that key theoretical, conceptual and methodological issues in the field of psychological resilience need to be addressed before large scale resilience interventions can realize their full promise in military organizations.<sup>56</sup>

### **Resilience – Recent Views**

Recently there has been some criticism of resilience. In part, this is due to a lack of real understanding as to what resilience is or really means. In turn, to some degree, this is due to how militaries “sold” resilience as a program that would address PTSD. The RAND Study *Promoting Psychological Resilience in the U.S. Military*<sup>57</sup> was a literature review which identified 270 relevant publications and conducted interviews with representatives from 23 relevant programs. They discovered that, because relatively few of the programs have conducted formal evaluations in military populations, there is limited evidence available as to how well the programs are working or would work if they were implemented in the military. Other programs they reviewed had some evidence of impact but primarily on non-military populations. They also found that there were no standard measures of resilience or standard outcomes across resilience programs. They concluded that, given the lack of consensus on what factors promote resilience, the facts that there is no single agreed-on measure to assess resilience, and that existing measures were developed and validated primarily with non-military populations, further methodological development of resilience scales for the military is warranted.

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<sup>55</sup> Helen Herrman, MD, Donna E. Stewart, MD, Natalia Diaz-Granados, MSc, Elena L. Berger, DPhil, Beth Jackson, PhD and Tracy Yuen, BSc, “What is Resilience,” *The Canadian Journal of Psychiatry* 56, no. 5 (May 2011): 259.

<sup>56</sup> Deniz Fikretoglu and Donald R. McCreary, *Psychological Resilience: A Brief Review of Definitions, and Key Theoretical, Conceptual, and Methodological Issues* (Toronto: Defence R&D Canada, 2012), i.

<sup>57</sup> Lisa S. Meredith, Cathy D. Sherbourne, ..., *Promoting Psychological Resilience* ...,xiv.



The RAND study wrestled with the definition of resilience and settled on the following definition: “Resilience is the capacity to adapt successfully in the presence of risk and adversity” (Jensen and Fraser, 2005). The study chose this definition for several reasons. First, it encapsulates the concept of capacity and the concept of a process involving adaptation and experiencing stressful situations. Also, consistent with the literature, it lends itself to conceptualizing outcomes in a positive orientation (psychological health and strength) rather than a negative one (mental illness and weakness) (Luthar et al., 2000). This definition is also consistent with many of the definitions found in the study’s review (see Chapter Three) and is parsimonious while at the same time is flexible across contexts (e.g., it can be applied to combat as well as poverty).<sup>58</sup>

The U.S. Army Comprehensive Soldier Fitness program or newly renamed Comprehensive Soldier and Family Fitness program was implemented in 2009 at an initial cost of \$125 million and to date has been made available to more than one million soldiers. The program is designed with a view to building resilience and enhancing the performance of soldiers, their families and U.S. Army civilian employees by promoting physical and psychological fitness and encouraging personal and professional growth so members perform better resulting in improved unit readiness and better lives for members. Recently, however, the U.S. Army Comprehensive Soldier Fitness Program has come under criticism. *Post-Traumatic Stress Disorder, Review of the Comprehensive Soldier Fitness Program* focused exclusively on Comprehensive Soldier Fitness (CSF) “because of its unprecedented nature as an extrinsic universal prevention program developed primarily by non-military experts, its high profile, and the controversy surrounding its implementation.”<sup>59</sup> One of the main issues is that the CSF was not piloted prior to dissemination, despite the fact that previous broadly applied psychological interventions in the military that made intuitive sense, such as post-event psychological debriefing, were subsequently shown to hold little or no benefit and to increase symptoms in

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<sup>58</sup> Lisa S. Meredith, Cathy D. Sherbourne, ..., *Promoting Psychological Resilience* ..., 3-4.

<sup>59</sup> R. Eidelson, M. Pilisuk and S. Soldz, “The Dark Side of Comprehensive Soldier Fitness,” *American Psychology* 66, no.7 (2011): 643– 4.

some people.<sup>60</sup> Furthermore, the Comprehensive Soldier Fitness program developers have not clearly articulated the theoretical assumptions or putative change agents underlying their program content as it pertains to preventing PTSD, or explicated how the program content and processes are intended to help soldiers manage exposures to combat and operational trauma.<sup>61</sup>

They also argued that the types of stressors that CSF must prepare soldiers for are broad and have substantially more emotional impact than those typical in civilian, youth, and college student participants which was the basis used to develop the program. A recent longitudinal study of PTSD in civilian survivors of serious physical injury suggested that unrealistically high expectations of one's ability to cope with stressors may at times be detrimental.<sup>62</sup> CSF was initially presented as something that would address PTSD.

This is problematic in and of itself as is clear is that PTSD does not have a single cause. The current conceptualization of PTSD is complicated by problems with the definition of trauma, questions about the etiological significance of traumatic events, and questions about the uniqueness of the symptom profile. Moreover, psychobiological, cross-cultural, and historical studies cast doubt on the notion that PTSD exists independently of prevailing cultural conceptualizations of psychopathology.<sup>63</sup> For military personnel it can be even more complicated and therefore difficult to determine the causes of PTSD and in turn determine effective treatments for PTSD. Regarding the causes of post-traumatic stress disorder in the military, apart from pre-existing mental health problems prior to the traumatic event, such as

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<sup>60</sup> B.T. Litz, M.J. Gray, R.A. Bryant and A.B. Adler, "Early Intervention for Trauma: Current Status and Future Directions," *Clinical Psychology* 9, no. 2 (2002): 123.

<sup>61</sup> Maria M. Steenkamp, PhD, William P. Nash, MD and Brett T. Litz, PhD, "Post-Traumatic Stress Disorder, Review of the Comprehensive Soldier Fitness Program," *American Journal of Preventative Medicine* 44, no. 5 (2013): 512.

<sup>62</sup> T.A. deRoos-Cassini, A.D. Mancini, M.D. Rusch and G.A. Bonanno, "Psychopathology and Resilience Following Traumatic Injury: a Latent Growth Mixture Model Analysis," *Rehabilitative Psychology* 55 (2010):1-11.

<sup>63</sup> James D. Herbert and Evan M. Forman, "Post-traumatic Stress Disorder," in *Practitioner's Guide to Evidence-Based Psychotherapy* (New York: Springer, 2006), 6.

severe depression, the significance of other possible predisposing factors (sex, age, difficult childhood, rank, deployment, etc.) has not been clearly established.<sup>64</sup>

The Institute of Medicine of the National Academies did a review of the U.S. Army Comprehensive Soldier Fitness Program on behalf of the U.S. Department of Defence (DOD) and determined it had short comings relative to what it had promised to deliver. They found that DOD has implemented numerous resilience and prevention programs for service members and their families, but the U.S. Army Comprehensive Soldier Fitness Program faces a number of challenges, including an insufficient evidence base to support its interventions and a lack of systematic evaluation and performance measures. They also discovered that “there's a surprising lack of empirical evidence for the creation of and evidence for the maintenance of” prevention programs, said M. David Rudd, provost of the University of Memphis and one of 13 committee members who helped write the report.<sup>65</sup> He called the findings “disappointing”. In conclusion, the IOM panel said the Army’s evidence is based on too small sample size to determine its true effectiveness.

### **Challenges with Psychology**

In developing CAF approaches, it appears that the military has incorporated the results of some psychological work without first imposing a professional lens/view or without assessing it in the context of both doctrine and historical lessons learned. One particular challenge with psychology is its subjectivity. Human behaviour is manifested as the result of thousands of factors, and more complex yet the interaction of all those factors compounded by fluctuation in many of those factors to make cause and effect analysis and deduction challenging. Concepts

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<sup>64</sup> Legal and Social Affairs Division, Parliamentary Information and Research Service, *Post-traumatic Stress Disorder and Mental Health of Military Personnel and Veterans* (Ottawa: Library of Parliament, 2013), 5.

<sup>65</sup> Shirley S. Wang, “Military’s Mental-Health Efforts Are Ineffective, Report Finds,” Wall Street Journal, 20 February 2014.

that psychologists are interested in, such as personality, thinking, and emotion, cannot be directly measured and are often inferred from subjective self-reports, which may be problematic.<sup>66</sup>

Psychology relies quite heavily on statistical analysis which is fraught with a number of problems when it comes to make broad definitive statements. Statistically significant but practically unimportant results are common with large samples.<sup>67</sup> This is only the beginning of the issues with statistics. The smaller the studies conducted in a scientific field, the less likely the research findings are to be true. The smaller the effect sizes in a scientific field, the less likely the research findings are to be true. The greater the number and the lesser the selection of tested relationships in a scientific field, the less likely the research findings are to be true.<sup>68</sup>

Even without the statistical issues there are other elements that make psychology more subjective than objective. Human judgment and influence in the design of psychological studies and the interpretation of the results allows subjectivity to taint the process. The greater the flexibility in designs, definitions, outcomes, and analytical modes in a scientific field, the less likely the research findings are to be true.<sup>69</sup> In recent years, and particularly in the U.S., there has been increasing debate about the nature of therapeutic effectiveness and about the relevance of empirically examining psychotherapeutic strategies.<sup>70</sup> Epidemiology faces similar challenges and it could be argued that it involves more facts. Even the sophisticated statistical techniques that entered epidemiologic research over the past 20 years – tools for teasing out subtle effects, calculating the theoretical effect of bias, correcting for possible con-founders, and so on – can't

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<sup>66</sup> A. Beveridge, "Time to Abandon the Subjective—Objective Divide?" *The Psychiatrist* 26 (2002): 101.

<sup>67</sup> J. Cohen, "The Earth is Round," *American Psychologist* 49, (1994): 1002.

<sup>68</sup> J.P.A. Ioannidis, "Why Most Published Research Findings are False," *PLoS Med* 2, no. 8 (2005): 698.

<sup>69</sup> *Ibid.*

<sup>70</sup> Elliot Robert, "Editor's Introduction: A Guide to the Empirically Supported Treatments Controversy," *Psychotherapy Research* 8, no. 2 (1998): 115.

compensate for the limitations of the data, says biostatistician Norman Breslow of the University of Washington Seattle.<sup>71</sup> The type of study even poses a challenge.

Those who did case-control studies say the bias is in the cohort studies. Cohort studies have to rely on impersonal questionnaires because they are so much larger than case-control studies, and women are less likely to give complete and honest information than they are in the more intimate interviews possible in case-control studies. “The point,” says Trichopoulos, “is which do you believe.”<sup>72</sup>

Then there is the human element in the conduct of the study and perhaps more importantly the outcome or results of any study. The greater the financial and other interests and prejudices in a scientific field, the less likely the research findings are to be true.<sup>73</sup> False positive conclusions, often resulting from the pressure to publish or the author's own confirmation bias, are an inherent hazard in the field, requiring a certain degree of skepticism on the part of readers.<sup>74</sup> Finally, the hotter a scientific field (with more scientific teams involved), the less likely the research findings are to be true.<sup>75</sup> Once a possible link is in the public eye, it can be virtually impossible to discredit.

“Authors and investigators are worried that there’s a bias against negative studies,” and that they will not be able to get them published in the better journals, if at all, says Angell of the *New England Journal of Medicine*. “By the time information reaches the public mind, via print or screen, the tentative suggestion is likely to be interpreted as a fact.” from Brian MacMahon, professor emeritus of epidemiology at Harvard in an April 1994 editorial in the *Journal of the National Cancer Institute*.<sup>76</sup>

The strong linkage of resilience with general psychology research and the lesser linkages with doctrine weaken its military applicability. The challenges with psychology itself further bring into question the strong emphasis on resilience as the means by which to address the

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<sup>71</sup> Gary Taubes, “Epidemiology Faces Its Limits,” in *Science* 269, no. 5221 (14 July 1995), 168.

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

<sup>73</sup> J.P.A. Ioannidis, “Why Most Published . . . , 698.

<sup>74</sup> Joseph Simmons, Leif Nelson and Uri Simonsohn, “False-Positive Psychology: Undisclosed Flexibility in Data Collection and Analysis Allows Presenting Anything as Significant,” *Psychological Science* 22, no. 11 (November 2011): 1359.

<sup>75</sup> J.P.A. Ioannidis, “Why Most Published . . . , 698.

<sup>76</sup> Gary Taubes, “Epidemiology Faces Its Limits,” . . . , 169.

psychological impact of combat and psychiatric casualties. Rather the seemingly sole emphasis on resilience should be tempered in light of its subjective foundation and other ways to achieve the desired effect should also be considered, quite possibly in conjunction with resilience.

Although there is no strong psychological evidence, despite a desire, that resilience works for everyone all of the time, it does work for some people some of the time. Therefore, the CAF needs to be cautious in how it draws on work in one context and then applies it to the military. A good example is the use of the Big Four as this was developed in sports psychology.

Despite all of this, currently the main focus for the Canadian Armed Forces is resilience. The “Big Four” refer to the practical skill component of the Road to Mental Readiness and are based on a program developed by the US Naval Special Warfare Centre. The Navy Seals have been studying various training techniques to “over-ride” the stress response system.<sup>77</sup> The catalyst for this was a high rate of training failures in one phase of pool training during Basic Underwater Demolitions School (BUDS). The program has its roots in sports performance psychology, and applies goal setting, visualization, self-talk and arousal control to mitigate the body’s automatic physiological reactions in situations of extreme stress and fear. These four components, goal setting, visualization, self-talk and arousal control are often referred to as the “Big 4.”

- Goal Setting – Goal setting can help motivate as well as provide direction – it gives the frontal lobes information to help control the amygdala.
- Visualization – It involves mentally preparing yourself for the “what-ifs”. This is not about being negative and becoming overwhelmed, rather it is predicting possible problems and working out a solution in advance.

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<sup>77</sup> Department of National Defence, *Senior Leadership Guide* ..., 12.

- Self Talk – It is not an event that leads to our emotions and behaviour but rather *our thoughts* about this event. The key to self-talk is to make the messages positive rather than negative.
- Arousal Control (Tactical Breathing) – Tactical breathing is based on the observation that many people breathe shallowly or irregularly when anxious or tense. These breathing patterns lead to an imbalance of oxygen and carbon dioxide in the body, which can cause the physiological symptoms of anxiety.

There are two schools of sports psychology: 1) individual psychological issues (this has no direct link to sports, rather this is focus on those who participate in sports who happen to have psychological issues), and 2) performance enhancement.

Researchers are beginning to look at how the sports psychology literature can inform the design, structure, and implementation of future military training. They have recognized the “similarities between military and sporting domains including requiring individuals to perform in a complex and dynamic environment, utilize a combination of perceptual, cognitive and motor skills, obtain a tactical advantage over their opponent, act upon partial or incomplete information evolving over time, work both independently and as a team in an effective manner, and operate under stressful circumstances.” (Ward, et al. 2008) So while there is certainly some significant differences between military operations and sporting events, the elements of performance enhancement and resiliency can be applied to both. Many of our allied military organizations, including the US Army and Navy Seals, have begun to utilize the methods and techniques behind sports psychology to improve performance both on and off the battle field.<sup>78</sup>

How far the similarities can be taken could be questioned as it could be argued that the magnitude of some differences far out way the similarities. To examine this six factors will be considered; 1) the playing area or operational area, 2) time, 3) climate, 4) opposition, 5) rules and 6) enforcement officials. These factors will be applied to four different scenarios; two for sports and two for military operations.

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<sup>78</sup>*Ibid.*

With respect to individual sports many of the factors influence the outcome are known or controlled. 1) The playing field or course is of fixed or known dimensions. In the case of track events they are of a known distance which does not vary. For changing examples, such as downhill skiing all participants know the length and the width of the course and will have conducted practice runs to familiarize themselves with it. In the case of this example they will also receive live video of earlier contestants go down the course so they can ascertain any change to conditions of the course. 2) Time factors are also known, either based on a set time like boxing where each round is of the same duration, three minutes for example or where one is competing for the quickest time is it relative to beating one's peers with an eye on the fastest recorded time you are trying to beat. 3) The climate is known or controlled. Many sports are done indoors negating adverse weather as a factor. In the case of outdoor sporting events weather at the time is for a short duration, is known and if it becomes too extreme the competition is stopped. 4) In the case of individual sports competition there is no direct human opposition although there may be indirect opposition as contestants are trying to be other contestants either directly like running races or based on best time like downhill skiing. 5) All individual sports have known rules issued by a governing body. 6) All individual sports have enforcement officials to ensure the rules issued by the governing body are followed with negative consequence for the athlete if they are not. Although there is a relationship with the individual shooting skills of soldiers, this has little direct relationship to soldier conducting combat operations against a capable and aggressive enemy.

With team sports things start to change making the direct application of sports psychology for individual athletes to teams problematic or even flawed. 1) Like individual sports there is a known playing field. Ice hockey has an ice rink for a mandated size, same goes



for football where the dimension of the playing field and the composition of the surface are mandated. 2) Time factors are known and controlled. Depending on the level of play ice hockey games consist of three periods generally 10, 15 or 20 minutes long. This means the length of play is known allowing maximum effort throughout. Even sports with overtime have limits on it and rules regarding how it will be managed. 3) Again, like individual sports the climate is known or controlled. Basketball is played indoors or when outside is generally played in good weather. When played outside, like individual sports, in the case of outdoor sporting events weather at the time is for a short duration and is known and if it becomes too extreme the competition is stopped.

4) The biggest difference is the inclusion of a direct human opposition. Sports psychology focused on individual athlete performance will be challenged in the face of an unpredictable human opposition. In the case of an opposing play it will be difficult to determine whether he will go left, right, over you, under you or through you, they could even let you pass or they could do nothing, simply stopping. Now one has to deal with whatever psychological impact occurs trying to cope with how the opposing players will act and react. For combat operations this challenge is even greater. Even in its most straightforward form, land combat is a complex and dynamic undertaking. It is characterized by friction, uncertainty, ceaseless change, and violence.<sup>79</sup> Doing the unexpected and thereby creating and exploiting opportunities will achieve surprise.<sup>80</sup> As much as one tries to know all there is to know about their opponents and the environment they operate in there are always large gaps in one's knowledge base. Making this all the more challenging one doesn't know what they don't know. In fact, one tries to create the condition of not knowing or at least create the condition of surprise. The advantage gained

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<sup>79</sup> Department of National Defence, ..., *Land Operations* ..., 2-17.

<sup>80</sup> Department of National Defence, ..., *Land Operations* ..., 3-6.

by surprise depends on the degree of disorientation and the enemy's ability to adjust and recover. Surprise, if sufficiently harsh, can lead to shock which can result in the total, if temporary, inability to react.<sup>81</sup>

5) Like individual sports, all team sports have known rules issued by a governing body and generally abided by, by all. 6) All team sports have enforcement officials to ensure the rules issued by the governing body are followed with negative consequence for the athlete or team if they are not. The major difference between individual sports and team sports is the introduction of a human opposition. Although limited by the other factors such as the size of the playing surface and the rules there are still numerous relatively unpredictable ways competitors will act.

Going to the next scenario, that of a Special Operations Force (SOF) Direct Action (DA) the unknowns increase further limiting predictive behavior and creating greater challenges. 1) Due to detailed reconnaissance the "playing field" is known, sometimes to the point of highly accurate building mock ups for rehearsals prior to mission execution. If details are lacking decreasing the likelihood of success the mission will be handed over to conventional forces for execution. 2) The mission will be planned and rehearsed in meticulous detail with a very detailed schedule for execution so the duration will be known. If this cannot be determined and fixed to a reasonable degree, again the mission will be handed over to conventional forces for execution. 3) Weather at the time of execution will be for a short duration and will be known and can be planned for and if it becomes too extreme the mission will be aborted and if required handed over to conventional forces. 4) The big difference, like team sports is the inclusion of a direct human opposition, in this case likely with deadly intent. Again, sports psychology focused on individual athlete performance will be challenged in the face of an unpredictable human opposition with deadly intent. In the case of a violent opponent it will be difficult to determine

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<sup>81</sup> United States Marine Corps. MCDP 1, *Warfighting* (Washington D.C.: Department of the Navy, 1997), 43.

what he will do with any real certainty. 5) Unlike team sports there are no known rules. Yes there are the Laws of Armed Conflict but there is no certainty that the opposition will follow them, history is full of war crimes. 6) Finally, there are no enforcement officials, certainly at the time of execution although an outside body like the United Nations could examine the event after it has occurred but that won't change the original outcome or the impact it will have on the participants.

With respect to Major Combat there are even more variables to challenge the foundation of sport psychology based on individual athletes in individual sports, only a little less challenging relative to team sports psychology. 1) Unlike even a SOF DA, the "playing field" at best will be only partially known. Although there will be maps and even aerial photographs, upon initial engagement it is unlikely the soldier will know the terrain details beyond what he can see at time, he or she will need to figure out the details as they go through the engagement, each discovery a potential surprise. 2) Time factors will also only be partially known. They will know the time now but not really when the engagement will end, the enemy will have a big say in this. If the enemy believes the fight is important he may be willing to feed combatants into it prolonging the length of the engagement to days even weeks. 3) The climate will also only be partially known, dependent on the duration. Combatants will know the weather now and may have an idea of what it will be in a couple of days but then predictability will decline. 4) The direct human opposition will potentially be unknown. There will be intelligence about the enemy in general, but the soldier on the ground may not know who shot at him or how many there are, where they are actually positioned and what they are actually armed with. 5) Like the SOF DA there are no known rules. Again, yes there are the Laws of Armed Conflict but there is no certainty that the opposition will follow them, history is full of war crimes. 6) Also like the

SOF DA there are no enforcement officials, certainly at the time of execution although an outside body like the United Nations could examine the event after it has occurred but that won't change the original outcome or the impact it will have on the participants.

There is an unreasonable leap from sports psychology for individual sports with all the associated highly controlled factors to Major Combat with all of the unknown and unpredictable variables to result in predictable psychological models of behaviour for soldiers in Major Combat based on sports psychology. With this in mind there is no conclusive evidence that 'resilience' programs based on sports psychology will directly transfer to the CA. But there is also no evidence that 'resilience' programs don't work either.

There are a number of challenges with the virtually exclusive emphasis on resilience as the means by which to address the psychological impact of combat and psychiatric casualties. The U.S. Army resilience program has faced challenges with proving that it has made soldiers resilient. The strong linkages resilience has with psychology and less so with doctrine casts doubt on the depth of its military applicability. This argument is reinforced by the weak logic flow that sports psychology, and by extension, resilience and the Big 4, has from individual sports to team sports to SOF DA to combat operations. Although resilience as a process has a place in military training and education the concept of 'bouncing back' is not enough. The CA requires soldiers who will push through and persevere psychologically. One possibility for achieving this is developing or enhancing psychological hardiness, which, as will be shown, can also be linked to military doctrine.

## CHAPTER 4 – PSYCHOLOGICAL HARDINESS

Before looking at psychological hardiness consideration should be given to the definition of “resilient” and “military resilience.” As part of the process for developing, or not, a CA doctrinal definition for resilience the CA doctrine terminology board considers existing definitions found in the Canadian Oxford Dictionary. The Canadian Oxford Dictionary defines Resilient as “2 (of a person) readily recovering from shock, depression, etc.; buoyant.” Is this what we want from our military, our Army in particular, a force or soldiers for whom the expected standard is to be “readily recovering from shock, depression?” Would not a more appropriate concept seek to avoid the need to recover from shock, do we want soldiers who are shocked and/or depressed to begin with, is this acceptable?

According to the American Psychological Association, resilience “is the process of adapting well in the face of adversity, trauma, tragedy, or even significant sources of stress.”<sup>82</sup> It could be argued this definition is an improvement over the dictionary definition as adapting is more dynamic and more positive than recovering. The problem with this definition of resilience is what do we mean by adaptable? This resulted in the definition of “military resilience”, an attempt to actually define adaptable. When studying resilience, researchers with Defence Research and Development Canada determined that one of the issues was, “there is no agreed-upon definition of adversity and positive adaptation, two key terms that need to be clearly defined.”<sup>83</sup> Revisiting “Military Resilience” as defined in the Army Terminology Repertoire, “the capacity of a soldier to recover quickly, resist, and possibly even thrive in the face of direct/indirect traumatic events and adverse situations in garrison, training and operational

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<sup>82</sup> Michael T. Kindt, “Building Population Resilience to Terror Attacks: Unlearned Lessons from Military and Civilian Experience” (Counterproliferation Paper No. 36 USAF Counterproliferation Center, Air University, 2006), 5.

<sup>83</sup> Deniz Fikretoglu and Donald R. McCreary, *Psychological Resilience: ...*, i.

environments.<sup>84</sup> Again, is this something that we really want from our military or our Army? Do we want soldiers who need to “recover?”

Would it not be preferable to have soldiers who take direct traumatic events and adverse situations in operational environments in stride? At the very least should we not strive for this recognizing that for those unable to achieve this then we seek “the capacity of a soldier to recover quickly, resist, and possibly even thrive in the face of direct/indirect traumatic events and adverse situations in garrison, training and operational environments?” The concept of thriving, within resilience, although a desirable, in the face of direct/indirect traumatic events and adverse situations in garrison, training and operational environments, really goes beyond the concept of resilience itself and in to the concept of psychological growth. As such, it is highly questionable that it belongs with resilience.

Psychological hardiness, also known as personality hardiness or cognitive hardiness is a personality style or trait. Conceptually, hardiness was originally seen as a personality trait or style that distinguishes people who remain healthy under stress from those who develop symptoms and health problems.<sup>85</sup> Another view is that rather than a personality trait, psychological hardiness may be more accurately described as a generalized style of functioning that includes cognitive, emotional, and behavioral features, and characterizes people who stay healthy under stress in contrast to those who develop stress-related problems.<sup>86</sup>

As a personality structure it is comprised of three related general dispositions that function as a resistance resource in the encounter with the stressful conditions, these dispositions

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<sup>84</sup> Department of National Defence, *Senior Leadership Guide ...*, 5

<sup>85</sup> Suzanne C. Kobasa, “Stressful Life Events, Personality, and Health – Inquiry into Hardiness,” *Journal of Personality and Social Psychology* 37, no. 1 (1979): 2.

<sup>86</sup> Paul T. Bartone, “Forging Stress Resilience: Building Psychological Hardiness” in *Bio-Inspired Innovation and National Security*, ed. Robert E. Armstrong, 243-256 (Saffron Waldon, UK: Books Express Publishing, 2010), 253.

are commitment, control and challenge.<sup>87</sup> Commitment is expressed as the tendency to involve oneself in whatever one is doing or encounters.<sup>88</sup> Persons strong in commitment rely on themselves to find ways of turning whatever they are experiencing into something that seems interesting and important to them, getting involved rather than feeling alienated.<sup>89</sup> Control is the tendency to feel and act as if one is influential in the face of varied contingencies of life.<sup>90</sup> Those strong in control believe that through effort, they can more often than not influence the course of events around them rather than passively seeing themselves as victims of circumstance.<sup>91</sup> Finally, challenge is the belief that change rather than stability is normal in life and that anticipation of changes are interesting incentives to growth rather than threats to security.<sup>92</sup> People strong in challenge believe that fulfillment is to be found in continual growth in wisdom through what is learned from experience rather than easy comfort, security and routine.<sup>93</sup>

The key here, which differentiates hardiness from resilience, is resistance, there is no breaking point. The “bounce back” for resilience strongly implies a breaking point is reached which the person has to recover from. The three general dispositions of hardiness align with military doctrine. Commitment speaks to military ethos as articulated in *Duty with Honour* including accepting unlimited liability, fighting spirit, discipline, duty and loyalty all which are part of military ethos. Control aligns with mission command which believes that commanders must, “use a minimum of control measures so as not to limit unnecessarily the freedom of action of subordinates” and “allow subordinates to decide within their delegated freedom of action how

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<sup>87</sup> Suzanne C. Kobasa, Salvatore R. Maddi, and Stephen Kahn, “Hardiness and Health: A Prospective Study,” *Journal of Personality and Social Psychology* 42, no. 1 (1982): 169.

<sup>88</sup> *Ibid.*

<sup>89</sup> Salvatore R. Maddi, Stephen Kahn and Karen L. Maddi, “The Effectiveness of Hardiness Training,” *Consulting Psychology Journal: Practice and Research* 50, no. 2 (1998): 78.

<sup>90</sup> Suzanne C. Kobasa, ..., “Hardiness and Health: ...”, 169.

<sup>91</sup> Salvatore R. Maddi, ..., “The Effectiveness of Hardiness Training,” ..., 78.

<sup>92</sup> Suzanne C. Kobasa, ..., “Hardiness and Health: ...”, 170.

<sup>93</sup> Salvatore R. Maddi, ..., “The Effectiveness of Hardiness Training,” ..., 78.

best to achieve their missions and tasks.”<sup>94</sup> Subordinates are expected to take full advantage of the control they are given over the conduct of the operation. “Once the intent of a task is clearly understood, platoon and section commanders have a responsibility to take the initiative to act in accordance with the demands of the situation without waiting for orders, to produce the results required.”<sup>95</sup> Finally challenge speaks to the training principles. Train As You Fight states, “while it will never fully simulate the consequences of operations, good training will prepare soldiers for the most challenging situations.”<sup>96</sup> Lastly, Training Must Be Interesting concludes “challenging and interesting training creates skilled, knowledgeable and well-motivated soldiers and leaders.”<sup>97</sup>

Looking at this in more detail commitment aligns with military ethos. Military Ethos which comes from Beliefs and Expectations from within Fighting Spirit speaks to members of the Canadian Armed Forces (CAF) being “committed to primacy of operations”.<sup>98</sup> Members of the Canadian military are expected to be committed to operations first and foremost. This is further reinforced by the Army’s view of Military Ethos which “requires serious personal commitment”<sup>99</sup> from soldiers in the Army thus further reinforcing the concept of commitment. From Duty as a component of Army Ethos it speaks to “resolve in execution of tasks”<sup>100</sup>, reinforcing again the concept of commitment or resolve. Finally, the Principle of War- Selection and Maintenance of the Aim which states, “Every operation must have a single, attainable and clearly defined aim that remains the focus of the operation and towards which all efforts are

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<sup>94</sup> Department of National Defence, B-GL-300-003/FP-001, *Command in Land Operations* (Ottawa: DND Canada, 2007), 2-5.

<sup>95</sup> Department of National Defence, B-GL-309-003/FT-001, *Infantry Section and Platoon in Battle* (Ottawa: DND Canada, 1996), 3-1-11.

<sup>96</sup> Department of National Defence, B-GL-300-008/FP-001, *Training for Land Operations* (Ottawa: DND Canada, 2014), 1-6-4.

<sup>97</sup> *Ibid*, 1-6-12.

<sup>98</sup> Department of National Defence ..., *Duty with Honour* ..., 27.

<sup>99</sup> Department of National Defence ..., *Canada’s Army* ..., 36.

<sup>100</sup> Department of National Defence ..., *Canada’s Army* ..., 34.



directed.”<sup>101</sup> The focus which all efforts are directed both strongly implies and requires commitment.

Pushing control downwards to the lowest levels is a common theme throughout the philosophy of mission command as espoused by the Canadian Army. It is “the philosophy of command that promotes unity of effort, the duty and authority to act and initiative to subordinate commanders.”<sup>102</sup> It goes on to say, “At its essence is freedom of action, trust and confidence.”<sup>103</sup> Principles of War further reinforce pushing control down to the lowest levels. The Principle of War - Selection and Maintenance of the Aim states, “Activities at the lower tactical levels must be planned and conducted in harmony with the intent and operational objectives identified at the higher echelons of command.”<sup>104</sup> To achieve harmony a degree of control must be pushed down to the lowest levels. The Principle of War – Flexibility speaks to “Essential to flexibility are effective information gathering and dissemination, rapid decision making, and an agile force that can shift its focus quickly.”<sup>105</sup> Rapid decision making and agility require control pushed down to the lowest levels.

*Training for Land Operations* identifies eleven principles of training, three of which address challenge and they are “Train as you fight,” “Train to adapt,” and “Training should be interesting.” Under “Train as you fight” there is a section on “Train to be the best” which speaks very clearly and openly to challenge. “Training should be challenging. Training scenarios, while initially simple, should increase in complexity, ambiguity and adversity of conditions, including time constraints.”<sup>106</sup> In the section “Train to adapt” it talks to creating conditions which by their

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<sup>101</sup> Department of National Defence ..., *Land Operations* ..., 3-6.

<sup>102</sup> *Ibid*, 5-74.

<sup>103</sup> *Ibid*, 5-76.

<sup>104</sup> *Ibid*, 3-6.

<sup>105</sup> *Ibid*, 3-7.

<sup>106</sup> Department of National Defence, B-GL-300-008/FP-001, *Training for Land Operations* (Ottawa: DND Canada, 2010), 1-11.

very nature will challenge soldiers and leaders. “Training for land operations must be designed to condition soldiers and, particularly, leaders against surprise and shock and to promote agility, encouraging adaptation to unfamiliar situations. They must be able to thrive in chaos.”<sup>107</sup> Lastly, there is “Training should be interesting”. “Progressive challenges, introduced in demanding but realistic circumstances, increase soldiers’ confidence and their motivation towards training. Challenging and interesting training creates skilled, knowledgeable and well-motivated soldiers and leaders; soldiers and leaders who are more likely to be retained in the CF.”<sup>108</sup>

The Principle of War – Surprise, emphasizes “Doing the unexpected and thereby creating and exploiting opportunities will achieve surprise.”<sup>109</sup> Doing the unexpected is a challenging problem to solve, thus trying to achieve surprise creates challenge. The Principle of War – Flexibility states, “Essential to flexibility are effective information gathering and dissemination, rapid decision making, and an agile force that can shift its focus quickly.”<sup>110</sup> Rapid decision making presents a challenge as does the agility required to be an agile force. Not only is there the need for physical agility, equally, if not more importantly, is mental agility. Mental agility is challenge and therefore presents a challenge to be addressed if not overcome.

What is a surprise is that the CAF has not looked at or considered psychological hardiness and the potential role it could play in member mental health. There is certainly no readily available written material on the subject, rather the focus appears to be on resilience. There is, however, a reasonable amount of written material and in turn research on hardiness. In this review, the work of three major authors on hardiness was noted as particularly relevant. The first is Suzanne C. Kobasa who wrote six journal articles from 1979 to 1985 on, or related to,

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<sup>107</sup> *Ibid*, 1-16.

<sup>108</sup> *Ibid*, 1-20 to 1-21.

<sup>109</sup> Department of National Defence ..., *Land Operations* ..., 3-6.

<sup>110</sup> *Ibid*, 3-7.

hardiness. She was the first psychologist to seriously look at hardiness in detail. She studied personality as a conditioner of the effects of stressful life events on illness onset focusing on hardiness and its three components of commitment, control and challenge.<sup>111</sup> Kobasa did a five year study of hardiness functions to decrease the effect of stressful life events in producing illness symptoms.<sup>112</sup> She also examined personality, social assets, and perceived social support as moderators of the effects of stressful life events on illness onset.<sup>113</sup>

The second major author on the topic of hardiness is Salvatore R. Maddi who produced or contributed to 11 publications (1 x book and 10 journal articles) from 1984 to 2013. Maddi determined the hardiness training condition was more effective than other conditions in increasing self-reported hardiness, job satisfaction and social support while decreasing self-reported strain and illness severity.<sup>114</sup> He argued the construct validity of hardiness theorizing and assessment by determining the role of hardiness in moment-to-moment experiencing, coping and strain reactions.<sup>115</sup> Maddi also addressed the hardiness of organizations, arguing that the counterparts of individual hardiness are the cultural values of cooperation, credibility and creativity.<sup>116</sup> In academic forums he discussed the history and status of the hardiness approach to enhancing performance, conduct, morale, stamina and health, including observations about the future of hardiness.<sup>117</sup> Maddi also argued that hardiness could be assessed and trained to

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<sup>111</sup> Suzanne C. Kobasa, "Stressful Life Events ...", 1.

<sup>112</sup> Suzanne C. Kobasa, ..., "Hardiness and Health: ...", 168.

<sup>113</sup> Suzanne C. Ouellette Kobasa and Mark C. Puccetti, "Personality and Social Resources in Stress Resistance," *Journal of Personality and Social Psychology* 45, no. 4 (1983): 839.

<sup>114</sup> Salvatore R. Maddi, ..., "The Effectiveness of Hardiness Training," ..., 78.

<sup>115</sup> Salvatore R. Maddi, "The Personality Construct of Hardiness: I. Effects on Experiencing, Coping, and Strain," *Consulting Psychology Journal: Practice and Research* 51, no. 2 (1999): 83.

<sup>116</sup> Salvatore R. Maddi, Debra M. Khoshiba and Arthur Pammenter, "The Hardy Organization: Success by Turning Change to Advantage," *Consulting Psychology Journal: Practice and Research* 51, no. 2 (1998): 117.

<sup>117</sup> Salvatore R. Maddi, "Comments on Trends in Hardiness Research and Theorizing," *Consulting Psychology Journal: Practice and Research* 51, no. 2 (1999), 67.

increase existential courage.<sup>118</sup> In his book, *Hardiness Turning Stressful Circumstances into Resilient Growth*, he notes there has been more than 30 years of hardiness theorizing, researching and practicing.<sup>119</sup> In the same book he states, “Hardy Attitudes will help soldiers, police and firefighters stay involved when stresses mount (Commitment), keep trying to influence outcomes (Control), and try to learn from the complexities and changes so as to perform even better (Challenge).”<sup>120</sup>

The final major author is Paul T. Bartone who produced or contributed to 12 publications (6 x journal articles and 6 x papers presented at peer conferences) from 1991 to 2012. In one of his first published works he described the development and validation of a short hardiness scale in use by the U.S. Army.<sup>121</sup> This was followed by a paper looking at soldiers involved in peacekeeping and contingency operations exploring the possible stress moderating effects of the hardy personality style in U.S. soldiers and finding that soldiers high in personality hardiness showed fewer stress related ill effects than those low in this trait.<sup>122</sup> He did further work suggesting hardiness protects against the ill effects of stress, particularly under high and multiple stress conditions, such as those faced on combat operations.<sup>123 124</sup> He went on to address how leaders can influence hardiness arguing highly effective leaders can increase hardy responses to

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<sup>118</sup> Salvatore R. Maddi, “Hardiness: An Operationalization of Existential Courage,” *Journal of Humanistic Psychology* 44, no. 3 (2004): 280.

<sup>119</sup> Salvatore R. Maddi, *Hardiness Turning Stressful Circumstances into Resilient Growth* (New York: Springer, 2013), 29.

<sup>120</sup> *Ibid*, 73.

<sup>121</sup> Paul T. Bartone, “Development and Validation of a Short Hardiness Measure” (paper presented at the Third Annual Convention of the American Psychology Society, Washington D.C., June, 1991), 2.

<sup>122</sup> Paul T. Bartone, “Stress and Hardiness in US Peacekeeping Soldiers” (paper presented at the Annual Convention of the American Psychological Association, Toronto, August, 1996), 2.

<sup>123</sup> Paul T. Bartone, “Hardiness Protects Against War-Related Stress in Army Reserve Forces,” *Consulting Psychology Journal: Practice and Research* 51, no. 2 (1999): 72.

<sup>124</sup> Paul T. Bartone, Charles L. Barry, and Robert E. Armstrong, “To Build Resilience: Leader Influence on Mental Hardiness,” *Defense Horizons* 69 (November 2009): 1.

stressful circumstances within their units.<sup>125 126 127</sup> Some of his more recent work looks at using hardiness to predict leader performance and leader adaptability.<sup>128 129</sup>

A further relatively detailed search found 58 additional references regarding psychological hardiness. At the same time this is reinforced by over 180 references that support the concept of psychological hardiness. In light of the relatively large body of research into psychological hardiness, it is surprising that the concept of psychological hardiness has not been explored further by the CAF. This is all the more surprising based on the findings regarding resilience by the RAND Study, *Promoting Psychological Resilience in the U.S. Military*, identified above. They concluded that given the lack of consensus on what factors promote resilience, the fact that there is no single agreed-on measure to assess resilience, and the fact that existing measures were developed and validated primarily with non-military populations, further methodological development of resilience scales for the military is warranted. For some reason the CAF seems fixated on resilience while ignoring, consciously or unconsciously, hardiness.

So historically combat has always had a psychological impact on combatants. Most come through with no significant mental health ill-effects, a number however did not. Looking to the first definitive modern war, WWI, having to cope with and manage psychiatric casualties was a bit of a voyage of discovery for all the Armies including the Canadian Army. After the war psychiatric casualties were not completely forgotten as the treatment and study of

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<sup>125</sup> Paul T. Bartone, "Resilience Under Military Operational Stress: Can Leaders Influence Hardiness?" *Military Psychology* 18 (2006): 131.

<sup>126</sup> Paul Bartone, "Forging Stress Resilience . . . , 252-253.

<sup>127</sup> Paul T. Bartone, "Social and Organizational Influences on Psychological Hardiness: How Leaders Can Increase Stress Resilience," in *Security Informatics* 21, no. 1 (2012): 8.

<sup>128</sup> Paul T. Bartone, Robert R. Roland, James J. Picano, and Thomas J. Williams, "Psychological Hardiness Predicts Success in US Army Special Forces Candidates," *International Journal of Selection and Assessment* 16, no. 1 (March 2008), 78.

<sup>129</sup> Paul T. Bartone, Dennis R. Kelly, and Michael D. Matthews, "Psychological Hardiness Predicts Adaptability in Military Leaders: A Prospective Study," *International Journal of Selection and Assessment* 21, no. 2 (June 2013), 200.

psychiatric casualties continued. Twenty years later, the work from World War One, provided a start point for dealing with psychiatric casualties in World War Two. By the end of WWII it had been learned that it required psychiatrists “to shift attention from problems of the abnormal mind in normal times to problems of the normal mind in abnormal times.” The lessons learned in WWII regarding the management and treatment of psychiatric casualties had not been lost and was applied in the Korean War. By the Vietnam War as the result of years of advocacy and collaboration among psychiatrists and several groups representing victimized or traumatized individuals, including groups representing Vietnam veterans PTSD was formally recognized. The question then became what could or did militaries do about it?

The obvious place to look is doctrine. How did and how does the military approach or consider the psychological impact of combat? It turns out quite a bit has been written in doctrine regarding the psychological impact of combat and what is expected of soldiers in combat. *Leadership in the Canadian Forces – Leading People* speaks to fighting spirit and courage re-emphasizing what is in *Duty with Honour* but it also introduces fear and the emotional plane which ties in with Army Doctrine. In *Canada’s Army* strong language is used, stating “the professional soldier is acutely aware of war’s horrors and of the need to be prepared for them.” The CA is clearly aware of the psychological challenges and issues surrounding the people and combat; “The psychological plane constitutes the perception, understanding, motivation, conviction, emotions, commitment, and ultimately the will of individuals and groups.” It is clear that the psychological aspect of operations is at least conceptually understood throughout CAF doctrine starting with the profession as whole, through the leadership of individuals and into the Army.

When determining what to do about recent psychiatric casualties caused by combat the CAF turned to psychological resilience. Accepting some of the challenges and issues with resilience, for the military, resilience is best viewed as a process. For the CA the “Big 4”, goal setting, visualization, self-talk and arousal control are things that can be trained to increase a soldier’s psychological resilience. Currently there is no conclusive evidence that ‘resilience’ programs based on sports psychology will directly transfer to the CA, there is also no evidence that ‘resilience’ programs don’t work either. Although resilience as a process has a place in military training and education the concept of ‘bouncing back’ is not enough. Psychological hardiness, also known as personality hardiness or cognitive hardiness is a personality style or trait that is comprised of three related general dispositions that function as a resistance resource in the encounter with the stressful conditions; commitment, control and challenge. These three dispositions relate to a number of aspects of Canadian military doctrine. Furthermore psychological hardiness is well researched not only with respect to the general population but also for the military. A new approach needs to be considered which aligns with CAF and Canadian Army doctrine. Rather than focus on resilience alone, hardiness also needs to be addressed.

## CHAPTER 5 – A NEW MODEL – THE GIANT THREE

Based on the analyses presented, it is clear that, a new approach needs to be considered which looks at resilience and hardiness in a supplementary and complimentary manner and which also includes physical fitness as this is the foundation for the mental and psychological. Psychological resilience and psychological hardiness are aspects of the mental plane of conflict. The mental plane is affected by the physical plane, when one is tired, mental performance Major E.R. e is decreased. The physical has an impact on the mental therefore both physical hardiness and physical resilience need to be considered along with psychological resilience and hardiness.

Doctrinally, when speaking to fighting power, the CA in *Land Operations* addresses the ability to fight, through three essential, inter-related components: a physical component aligned with the physical plane: as well as a moral component and an intellectual component, both aligned with the mental plane. The moral component, which includes moral and cohesion and reflects the ability to have soldiers fight; the physical component, which is the means to fight; and, the intellectual component, which includes the conceptual elements of doctrine and education, and the perceptions for situational understanding and decision making.<sup>130</sup> This construct aligns with the model of psychological defence based on psychological hardiness and psychological resilience. This is reinforced by *Canada's Army* when speaking about morale and esprit de corps. "A high level of morale among soldiers and *esprit de corps* within units enhances teamwork and enables soldiers personally and collectively to willingly withstand hardship and danger, overcome fear, and act resolutely against an opponent."<sup>131</sup> A psychological defence model based on doctrine and supported by psychology would help achieve this.

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<sup>130</sup> Department of National Defence ..., *Land Operations* ..., 4-1.

<sup>131</sup> Department of National Defence ..., *Canada's Army* ..., 41.



This more integrated approach then supports CAF beliefs and expectations; the moral qualities to operate in conditions of extreme danger will necessitate psychological robustness, this is an expectation of the profession of arms. Fighting Spirit “imparts to individuals the moral, physical and intellectual qualities necessary to operate in conditions of extreme danger, to endure hardship and to approach their assigned missions with confidence, tenacity and the will to succeed.”<sup>132</sup> Doctrine should be trained and educated to bridge the capability gap with respect to psychological defence looking at psychological hardiness and psychological resilience built on a foundation of physical hardness or toughness.

As articulated in CA doctrine, the objectives of conflict are the imposition of one’s will on an opponent and to alter the opponent’s behaviour. In this day and age a range of activities may be undertaken that engage and affect an opponent’s or another’s will to fight or to support a particular activity. The organized application of violence by physical force against a target’s capability is one means and the use of psychological operations another. Thus, there is a combination of physical activities and influence activities that may be undertaken in the prosecution of conflict. Seen from this perspective, activities and their effects exist on two planes, the physical and the psychological.<sup>133</sup>

The physical plane comprises the physical objects, actions and effects in the battlespace. It includes military forces, the electromagnetic spectrum, civilian populations, armed factions, logistical resources and infrastructure, as well as geography, oceanography, and meteorology.<sup>134</sup> The focus here however is on the human as a physical being. Physical wellness and fitness are critical for an optimal response to a threat. Conversely, the lack of physical wellness or fitness

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<sup>132</sup> Department of National Defence ..., *Duty with Honour* ..., 27.

<sup>133</sup> Department of National Defence ..., *Land Operations* ..., 5-2.

<sup>134</sup> *Ibid.*

may significantly detract from an individual's ability and confidence.<sup>135</sup> The healthier and more physically fit one is, the better they will be able to deal with the psychological. If they are sick or tired the relatively more psychologically vulnerable they will be. Being in good physical condition prepares individuals to better cope with the physiological demands of stress.<sup>136</sup>

The psychological plane constitutes the perception, understanding, motivation, conviction, emotions, commitment, and ultimately the will of individuals and groups. It may be referred to as the moral plane or cognitive plane.<sup>137</sup> Returning to fighting power, it is the moral component that addresses the moral plane. The moral component provides the ethical and cultural base from which we derive morale, cohesion, *esprit de corps*, and fighting spirit. Elements of the moral component are largely intangible, yet vital products of tradition, history, force preparation and generation. They may take years to develop.<sup>138</sup> Fighting spirit is defined in *Duty with Honour*. It imparts to individuals the moral, physical and intellectual qualities necessary to operate in conditions of extreme danger, to endure hardship and to approach their assigned missions with confidence, tenacity and the will to succeed. Fighting spirit is especially important to act decisively — including the use of lawful, lethal force against an adversary — during combat operations.<sup>139</sup>

CA doctrine clearly illustrates the importance of the Canadian military value of courage to fighting spirit. “Courage is a distinctly personal quality that allows a person to disregard the cost of an action in terms of physical difficulty, risk, advancement or popularity.”<sup>140</sup> *Duty with Honour* goes on to state, “Courage entails willpower and the resolve not to quit, frequently, it is a

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<sup>135</sup> United States Marine Corps, MCRP 6-11C/NTTP 1-15M, *Combat and Operational Stress Control* (Washington D.C.: Department of the Navy, 2010), 2-6.

<sup>136</sup> United States Army, FM 6-22.5, *Combat and Operational Stress Control Manual for Leaders and Soldiers* (Washington D.C.: Department of the Army, 2009), 2-11.

<sup>137</sup> Department of National Defence ..., *Land Operations* ..., 5-3.

<sup>138</sup> *Ibid*, 4-2.

<sup>139</sup> Department of National Defence ..., *Duty with Honour* ..., 27.

<sup>140</sup> *Ibid*, 33.

renunciation of fear that must be made not once but many times.”<sup>141</sup> Linked to fighting spirit and the military value of courage is mental resilience and mental hardiness support by the physical aspects of both concepts. These two concepts, hardiness and resilience, are key to enabling and sustaining courage and fighting spirit and in turn the moral component of fighting power.

There are a number of qualities required to achieve the above; Extreme Determination, Force of Will and Boldness vs Caution or judgement. Force of Will is the most important with respect to the psychological plane. It is the ultimate aim of battle to destroy the enemy’s courage by annihilating their will to fight, largely facilitated by killing them. Battles can be won and lost in the hearts of men. Soldiers who possess a resilient force of will are going to win.<sup>142</sup> Once combat operations begin, leadership must learn to function in an environment of fear. It is imperative that soldiers have fortitude in resisting hardship, discomfort, and fatigue. War is immensely tiring, and leaders must balance the fatigue of their soldiers, against the tactical imperatives that lie ahead. Stress will visit every soldier and although not covered in detail in this publication, leaders must learn to recognize and counter its effects.<sup>143</sup>

The purpose of offensive operations is to defeat the adversary through the use of violence. Offensive action, on both the moral and physical planes, through a combination of physical and intellectual activities, is the decisive operation of war and ultimate success is achieved through it.<sup>144</sup> The purpose of defensive operations is to defeat or deter an adversary’s offensive actions; they are generally intended to provide the right conditions for offensive action. Defensive operations alone generally do not achieve a decisive conclusion to a campaign, which

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<sup>141</sup> *Ibid.*

<sup>142</sup> Department of National Defence ..., *Infantry Section and Platoon in Operations* ..., 1-9.

<sup>143</sup> *Ibid.*, 1-11.

<sup>144</sup> Department of National Defence ..., *Land Operations* ..., 7-17.

often requires offensive operations. Defensive battles, however, have on occasions been decisive to the conduct of a campaign. Defensive operations include delay operations.<sup>145</sup>

Although much is written on defence in the physical plane, very little is written about defence in the psychological plane. In fact, in *Land Operations* there are only three paragraphs on the psychological defence. It considers only three things, guarding a force's sense of purpose, cohesion and morale, defending a force's image amongst a civilian populace and the JIMP environment, and defending how others perceive the commander and his forces.<sup>146</sup> This does not address the psychological defence of the individual but of the force as a force. The problem with the focus of defence on the force and not the individual is that the individual is vulnerable to psychological attack whether the attack is intentional or not. This vulnerability could turn into vulnerability for the force at large if there are enough or too many psychological casualties.

Resilience is a form of psychological defense but psychological defense needs to expand beyond resilience. Psychological defense should consist of three components; psychological hardiness, physical fitness and health (or hardness) and military resilience (psychological resilience and an attitude of toughness).

“On the psychological plane, activities create first order effects on the perceptions, understanding, will, and ultimately the behaviour of target audiences.”<sup>147</sup> To defend against this psychological offence, soldiers need to be psychologically hardy, they need “a generalized mode of functioning that incorporates a strong sense of commitment and meaning in life, an expectation that one can control or influence outcomes, and an adventurous, exploring approach to living that function as a resistance resource in the encounter with stressful conditions” or psychological shock. In the physical plane to defend against physical shock, soldiers need to be

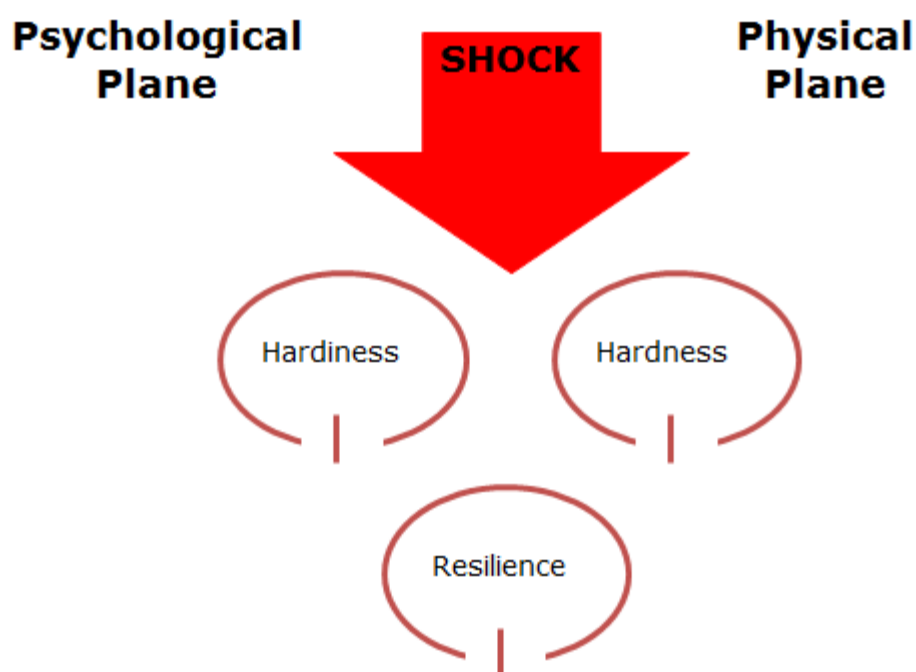
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<sup>145</sup> *Ibid*, 7-45.

<sup>146</sup> *Ibid*, 7-51.

<sup>147</sup> *Ibid*, 5-3.

physically hard, they need to have “the ability to live in the open air, with inadequate sleep, food and warmth so as to not let it impair their judgement or willpower”<sup>148</sup> (physical hardness is based on physical fitness and health). This concept is illustrated in the following diagram based on an area defence for land operations, each oval with a line representing a sub-unit defensive position. Hardiness and Hardness are the main ‘defensive positions’ with Resilience in ‘depth’ to bolster the forward two positions if required.



Psychological shock generally takes one of two forms, either fear of death or the sight of horrifying events. Fear is defined as, “a primitive, intense emotion in the face of threat, real or imagined, which is accompanied by physiological reactions resulting from arousal of the sympathetic nervous system and by defensive pattern of behaviour associated with avoidance,

<sup>148</sup> A.S. Jeapes, “Stress in Battle,” *Infantry Journal* no. 28 (Spring 1995): 21.

fight or concealment.”<sup>149</sup> Horror is defined as, “the elicitation of dread or visceral disgust.”<sup>150</sup> Physical shock, short of physical trauma for which physical protection is require, takes the form of tiredness as in sleepy due to sleep deprivation or fatigue due to extreme physical exertion. Drowsy is defined as, “sleepy.”<sup>151</sup> Fatigue is defined as “temporary lessening or loss of power to respond, induced in a sensory receptor or motor end organ by continued stimulation, it is (also) the muscular tiredness one feels after sustained vigorous exercise, repeated lifting or digging.”<sup>152</sup> Fear and/or horror attack the psychological plane in the form of terror, defined as “extreme fear.”<sup>153</sup> Drowsiness and/or fatigue attack the human in the physical plane in the form of exhaustion, defined as “extreme tiredness or fatigue.”<sup>154</sup>

If one is not psychologically hardy enough when they face terror they will be psychologically frozen and unable to act or they may even psychologically withdraw. Either way they will be unable to function. For those who are psychologically resilient this moment may be very brief, after which they recover and resume the ability to function. Likewise, if one is not physically hard enough when they encounter exhaustion they may be unable to physically perform. Comparable to psychological resilience, those who have an attitude of toughness will be able to overcome this for a short period of time, psychologically being able to push themselves physically further.

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<sup>149</sup> M.S. Bhatia, *Dictionary of Psychology and Allied Sciences* (New Delhi: New Age International (P) Limited, Publishers, 2009), 153.

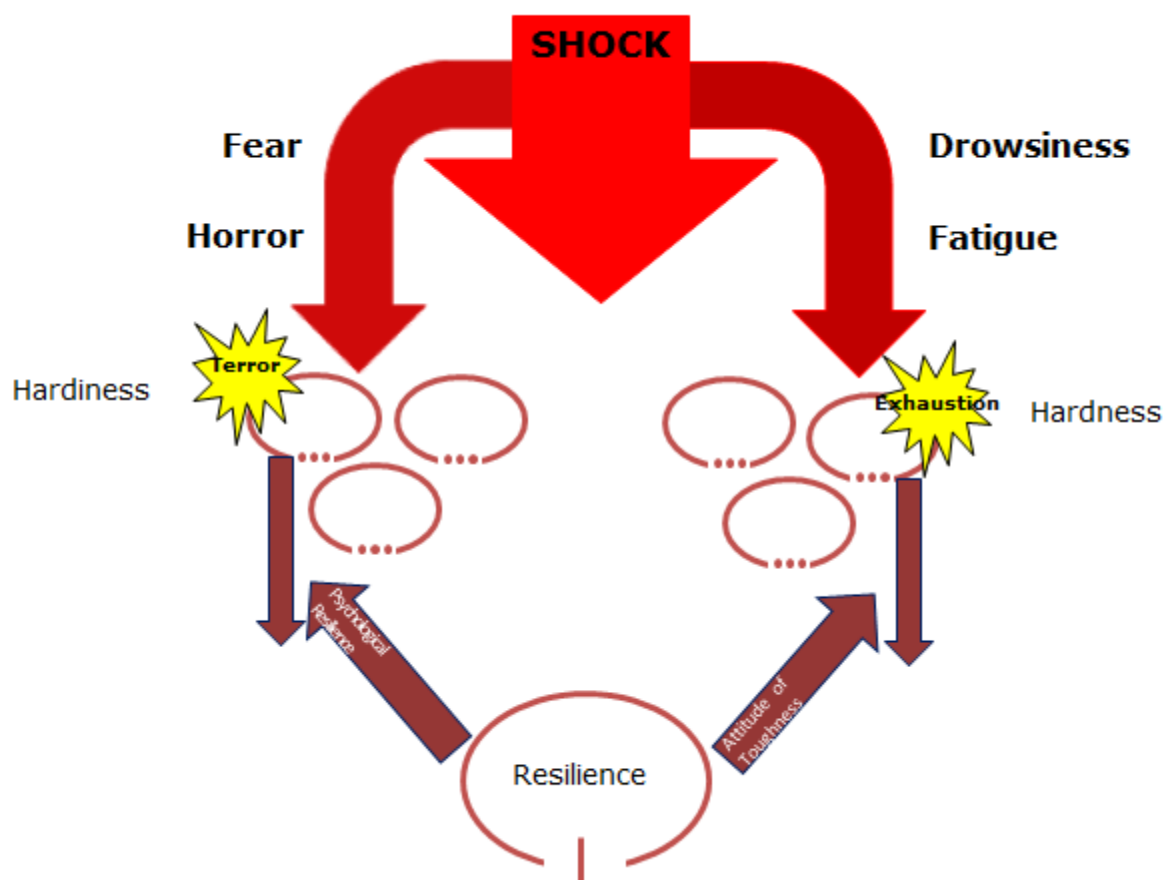
<sup>150</sup> Thomas Fahy, ed., *The Philosophy of Horror* (Lexington: The University Press of Kentucky, 2010), 15.

<sup>151</sup> Heather Bateman, Ruth Hillmore, Daisy Jackson, Sarah Luszkat, Katy McAdam and Charlotte Regan, *Dictionary of Medical Terms* (London: A & C Black, 2005), 116.

<sup>152</sup> Gerald P. Krueger, “Sustained Military Performance in Continuous Operations: Combat Fatigue, Rest and Sleep Needs,” in *Handbook of Military Psychology* (Chichester, UK: John Wiley & Sons, 1991), 260.

<sup>153</sup> Katherine Barber, ed., *The Canadian Oxford Dictionary* (Don Mills: Oxford University Press, 1998), 1498.

<sup>154</sup> Heather Bateman ..., *Dictionary of Medical Terms* ..., 136.



The analogy of, or model based on, the area defence for land operations can be taken further by looking at it from a combat service support perspective. There are a number of existing programs in the CAF that support psychological defence to varying degrees often dependent on the individual or individuals. These programs can be put into three general groups; 1) medical support and services, 2) operational support and programs and 3) garrison support and programs. Medical supports and services are delivered through 19 CF Health Service Centres and 16 Detachments at bases across Canada and in Europe through six different programs.

Mental health care is guided by evidence-based best practices and is delivered through multidisciplinary teams of health care professionals.<sup>155</sup>

At the other end of the support spectrum are the Garrison support and programs which bolster resilience, and even hardiness, of soldiers and in some cases provide support to family and former members. There are nine programs which fall into this category including Military Family Services which address issues that affect the quality of life of families and Veterans Affairs Canada which offers services for Veterans and CAF members.<sup>156</sup> The mental health system provides member-focused family care because there is considerable evidence and professional consensus that family involvement in the treatment process can improve outcomes.<sup>157</sup>

Between these two groups of support and programs are the Operational support and programs that are more member and medically oriented than the Garrison support and programs but less medically and more program oriented than the Medical support and services. There are six different types of Operational support and programs including things such as each deployment being provided mental health support ranging from a medic to a mental health specialist team and an Enhanced Post-Deployment Screening between three and six months after return to Canada.<sup>158</sup> This creates a CSS framework with Garrison programs providing psychological support to the psychological defense bolstered by the Operational programs and Medical programs providing medical support to the psychological defense bolstered again by the Operational programs.

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<sup>155</sup> Department of National Defence, *Surgeon General's Mental Health Strategy, Canadian Forces Health Services Group, An Evolution of Excellence* (Ottawa: DND Canada, n.d.), 14.

<sup>156</sup> *Ibid.*, 18.

<sup>157</sup> *Ibid.*, 17.

<sup>158</sup> *Ibid.*



The renewed interest in resilience over the last few years focused on PTSD, or more recently OSIs, has resulted in a loss of focus on softer mental and physical challenges. Annex C to *Realities of Battle, Battlefield Stress*, October 1991, RB/01/P Part 5 by The Canadian Land Forces Command and Staff College lists three degraded mental states suffered by those on military operations; 1) battle fatigue, 2) battle shock and 3) psychiatric casualties. Battle fatigue results from tiredness and sleep deprivation. It is likely to manifest itself after some 4 days of battle and is easily treated by rest. It is interesting to note that forced rest is now rarely if ever trained or educated in the Individual Training and Education system or on collective training based on the author's experience of over more than 30 years in the infantry. This lack is highlighted by the fact that sleeping arrangements are rarely if ever established ignoring the prolonged requirement for formalized rest. Battle shock is temporary psychological upset causing an inability to function normally. Its incidence is not only related to the number of physical casualties; it is also found amongst unwounded soldiers suddenly exposed to intense combat. This is what psychological resilience is to address, those cases of battle shock. Finally, psychiatric casualties are those who suffer from a recognized psychiatric condition, such as depressive illness or acute neurosis, or what today we call PTSD or OSI. Thinking in 1991<sup>159</sup> viewed neither battle fatigue nor battle shock as constituting psychiatric illness, though incorrectly managed they may become so. Battle fatigue has since been termed "Combat Stress Reactions"<sup>160</sup> but is to be viewed and managed in the same way as battle fatigue.

This then evolves the model further. The immediate stage of Combat Stress Reaction is most successfully treated in proximity to the unit.<sup>161</sup> When psychological hardiness and/or

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<sup>159</sup> Canadian Land Force Command and Staff College, "Realities of Battle . . . , 1C-1 – 1C-3.

<sup>160</sup> Department of National Defence, *Senior Leadership Guide . . . , 27.*

<sup>161</sup> Shabtai Noy, "Combat Stress Reactions," in *Handbook of Military Psychology* (Chichester, UK: John Wiley & Sons, 1991), 518.

physical hardness are not enough battle fatigue can set in and can be addressed by rest at the sub-unit or unit level. As such Battle Fatigue is found in the depth of the Hardiness and Hardness ‘battle positions.’ Self and first aid coping techniques for stress reactions are essential to allow each soldier and small unit self-reliance in protecting themselves on the fluid battlefield.<sup>162</sup>

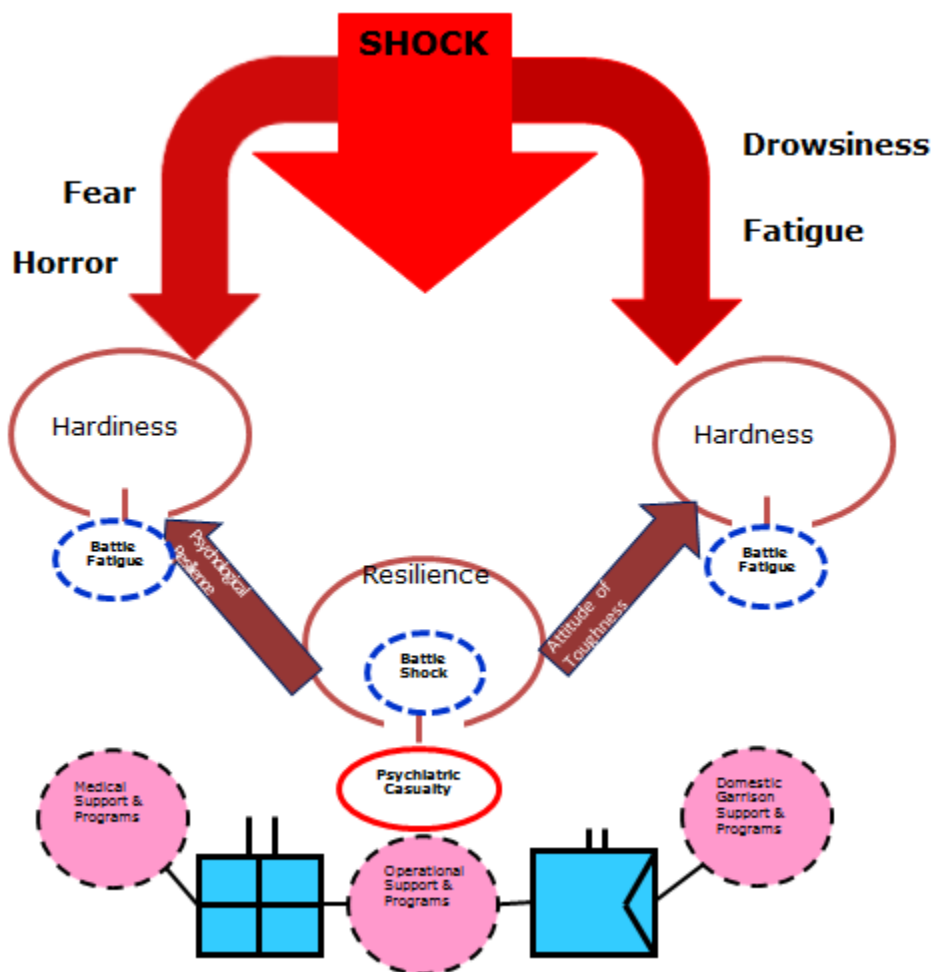
Battle shock, as mentioned above, can be found in the Resilience “battle position”. At this point a soldier can still be brought back to operational effectiveness in relatively short order. There is little role for medical personnel in the first 48 - 72 hours of treatment. It is only after 48-72 hours, that a diagnostic assessment be undertaken (Adapted from CF Health Services CSR Management Policy).<sup>163</sup> The psychiatric casualty cannot be addressed by first line medical support found at the unit level, they must be moved back for proper medical attention. However, the farther a casualty is evacuated to the rear unnecessarily, the greater the risk of chronic PTSD.<sup>164</sup>

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<sup>162</sup> Major E.R. Black, “Human Performance in Combat,” (Working Paper 88-1, Canadian Forces Mobile Command Headquarters, March 1988), 14.

<sup>163</sup> Department of National Defence, *Senior Leadership Guide ...*, 27.

<sup>164</sup> Shabtai Noy, “Combat Stress Reactions,” ..., 518.



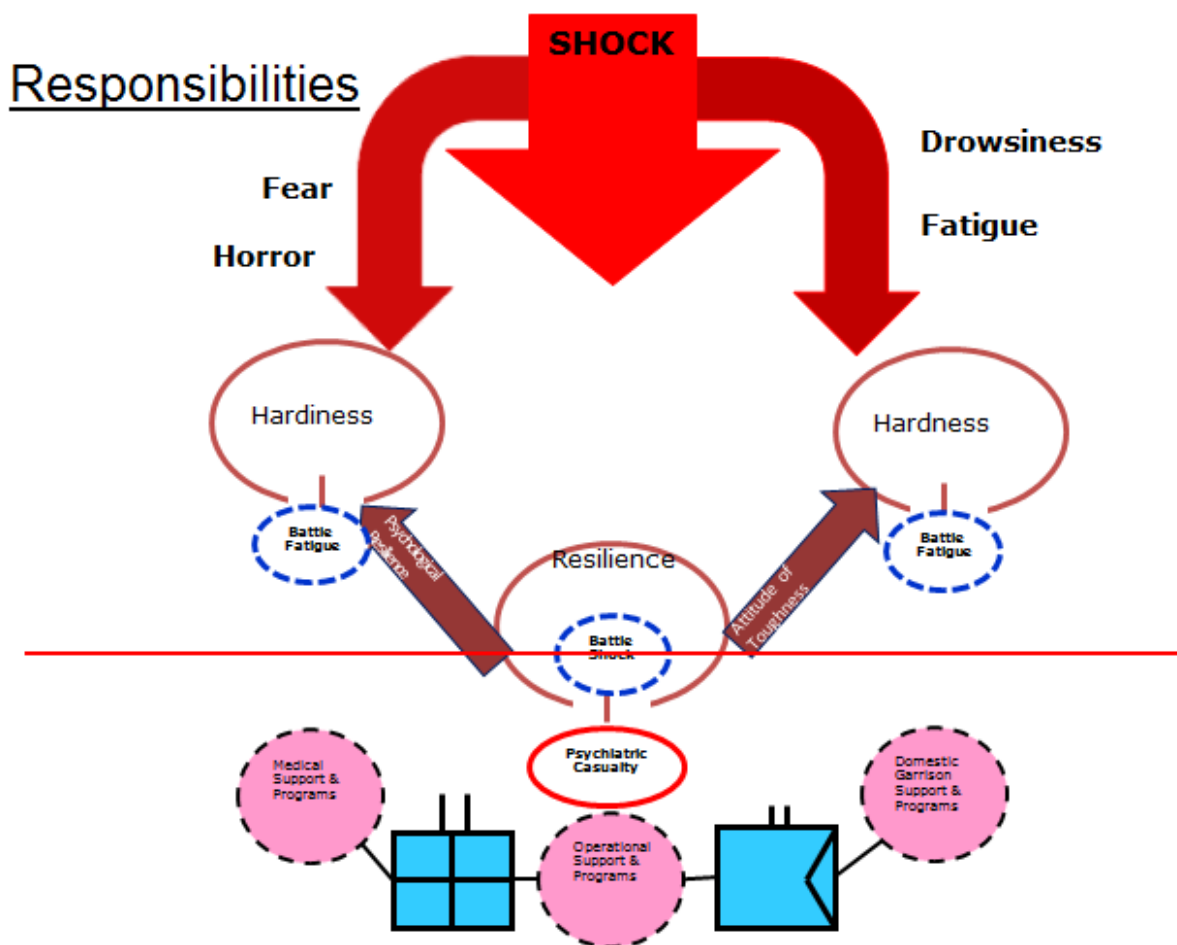
One last issue to address is who has the responsibility to address the development and then implementation of this model? The Army as a profession must shoulder much of the load for the development and implementation of such a model, keeping in mind the model has been designed based on existing Army doctrine. Hardiness can be enhanced by focusing on education and formal practice of military ethos (commitment), true practice of mission command (control) where mistakes are allowed to broaden learning both in training and in practice, and delivering realistic and challenging training (challenge). Hardness can be developed by focusing on physical fitness through formal training and the development of healthy living practices through formal education. Healthy living practices will also reinforce efforts to develop good physical

fitness. This will create the physical foundation to develop hardness through physically demanding or challenging training which pushes soldiers to their physical limits. This will also reinforce psychological challenge and in turn further develop hardness. All of this is within the purview of the military profession.

If resilience is to be developed or enhanced through the Big 4 then this too falls to the military profession to develop. The four components of the Big 4 can be trained and can be enhanced further through further practice in formal individual and collective training. If battle shock is to be nested somewhere within resilience, this is where responsibility will start to shift from the military profession to those of the medical profession. As long as the process of resilience works for a soldier it is a military responsibility. Victims of battle shock will need to be given the necessary time by the military profession to allow resilience to work. When and where this is not possible, personnel will need to be handed off to the medical profession, initially as victims of battle shock. In the past the CA considered evacuating combat stress casualties along administrative lines and not within the medical stream as this evacuation procedure helped to instil in the soldier that their reaction was normal and not a mental disorder.<sup>165</sup> That said, psychiatric casualties clearly belong to the medical profession. This then leads to a division of responsibility. Based on the defensive model, within the depth position of resilience is its own depth element of battle shock which is where responsibility is transferred to the medical system.

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<sup>165</sup> Major E.R. Black, "Human Performance in Combat," ..., 25.



Resilience is not enough for Soldier Psychological Defence. Soldiers need to be trained and educated for physical fitness and health to produce soldiers that are physically hard so they are able to meet the physical demands of combat. The also develops a sound physical foundation upon which to build psychological defences. The CA requires soldiers who are psychologically hardy so they fight through the psychological shocks of combat without pause. When soldiers are unable to be psychologically hardy because the shock is too great for them, then soldiers need to be psychologically resilient, able to bounce back and carry on with the combat mission. Likewise, when they become drowsy and/or fatigue they need to be physically resilient and find the physical reserve required to physically carry on with the mission. Leaders need to be able to recognize battle fatigue so as not to push soldiers to the point where resilience is required so that

hardiness and hardness can be preserved. Leaders may miss this important decision point and soldiers will fall back to resilience but if the resilient soldier is pushed again past their limits they may suffer from battle shock. When this happens, the combat chain of command must work closely with the medical system to prevent the soldier from becoming a psychiatric casualty. Not all soldiers can be psychologically hardy or psychologically resilient, when this is the case they will become psychiatric casualties requiring the services of the medical, operational and garrison support services and programs. This is a complete Soldier Psychological Defence system.

## CONCLUSION

Combat is conducted on both the physical plane and the psychological plane, therefore casualties will occur in both planes. At the end of WWII, Armies had learned that it required psychiatrists “to shift attention from problems of the abnormal mind in normal times to problems of the normal mind in abnormal times.” By the Vietnam War, as the result of years of advocacy and collaboration among psychiatrists and several groups representing victimized or traumatized individuals, PTSD was formally recognized.

When determining what to do about recent psychiatric casualties caused by combat the CAF has turned to psychological resilience. For the CA the “Big 4” of goal setting, visualization, self-talk and arousal control are things that can be trained to increase a soldier’s psychological resilience. Currently there is no conclusive evidence that ‘resilience’ programs based on sports psychology will directly transfer to the CA, however, there is also no evidence that ‘resilience’ programs don’t work either. Although resilience as a process has a place in military training and education, the concept of ‘bouncing back’ is not enough. Psychological hardiness, also known as personality hardiness or cognitive hardiness is a personality style or trait that is comprised of three related general dispositions that function as a resistance resource in the encounter with the stressful conditions; commitment, control and challenge. These three dispositions relate to a number of aspects of Canadian military doctrine.

It turns out quite a bit has been written in doctrine regarding the psychological impact of combat and what is expected of soldiers in combat. *Leadership in the Canadian Forces – Leading People* speaks to fighting spirit and courage as well as introducing fear and the emotional plane which ties in with Army Doctrine. For the CA, “the psychological plane constitutes the perception, understanding, motivation, conviction, emotions, commitment, and

ultimately the will of individuals and groups.” The psychological aspect of operations is at least conceptually understood throughout CAF doctrine starting with the profession as whole, through the leadership of individuals and into the Army.

Doctrine also supports a psychological model for defence on the psychological plane. Doctrinally the CA in *Land Operations* when speaking to fighting power addresses the ability to fight, through three essential, inter-related components: a physical component aligned with the physical plane: as well as a moral component and an intellectual component, both aligned with the mental plane. The moral component, which includes moral and cohesion and reflects the ability to have soldiers fight; the physical component, which is the means to fight; and, the intellectual component, which includes the conceptual elements of doctrine and education, and the perceptions for situational understanding and decision making. This construct aligns with the model of psychological defence based on psychological hardiness and psychological resilience.

A psychological defence model based on doctrine and supported by psychology would “enable soldiers personally and collectively to willingly withstand hardship and danger, overcome fear, and act resolutely against an opponent.” So a new approach needs to be considered which looks at resilience and hardiness in a supplementary and complimentary manner and which also includes physical fitness as this is the foundation for the mental and psychological components. Doctrine should be developed, trained and educated to bridge the capability gap with respect to psychological defence looking at psychological hardiness and psychological resilience built on a foundation of physical hardness or toughness.

Just as there is doctrine for the defence in the physical plane there needs to be doctrine for the defence in psychological plane. The model of Soldier Psychological Defence expressed in this paper needs to be examined as the doctrinal model for defence in the psychological plane.



Soldiers need to be trained and educated for physical fitness and health to produce soldiers that are physically hard so they are able to meet the physical demands of combat. This also develops a sound physical foundation upon which to build psychological defences. The CA requires soldiers who are psychologically hardy so they can fight through the psychological shocks of combat without pause. When soldiers are unable to be psychologically hardy because the shock is too great for them, then soldiers need to be psychologically resilient, able to bounce back and carry on with the combat mission. Likewise, when they become drowsy and/or fatigue they need to be physically resilient and find the physical reserve required to physically carry on with the mission. Leaders need to be able to recognize battle fatigue so as not to push soldiers to the point resilience is required so that hardiness and hardness can be preserved.

Leaders have their own unique role within the Soldier Psychological Defence model. Leaders may miss this important decision point and soldiers will fall back to resilience but if the resilient soldier is pushed again past their limits they may suffer from battle shock. When this happens, the combat chain of command must work closely with the medical system to prevent the soldier from becoming a psychiatric casualty. Not all soldiers can be psychologically hardy or psychologically resilient, when this is the case they will become psychiatric casualties requiring the services of the medical, operational and garrison support services and programs. This is a complete Soldier Psychological Defence system, reflective of the realities of battle and supporting Canadian Army fighting power.

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