THE HUMAN DIMENSIONS OF OPERATIONS:

A Personnel Research Perspective



Edited by

MAJOR GARY IVEY, DR. KERRY SUDOM, WAYLON H. DEAN, & DR. MAXIME TREMBLAY

THE HUMAN DIMENSIONS OF OPERATIONS

A Personnel Research Perspective

THE HUMAN DIMENSIONS OF OPERATIONS

A Personnel Research Perspective

EDITED BY
MAJOR GARY IVEY,
DR. KERRY SUDOM,
WAYLON H. DEAN, &
DR. MAXIME TREMBLAY



Copyright © 2014 Her Majesty the Queen, in right of Canada as represented by the Minister of National Defence.



Canadian Defence Academy Press PO Box 17000 Stn Forces Kingston, Ontario K7K 7B4

Produced for the Canadian Defence Academy Press by 17 Wing Winnipeg Publishing Office. WPO31016

Cover Image: Courtesy Silvia Pecota

Library and Archives Canada Cataloguing in Publication

The human dimensions of operations : a personnel research perspective / edited by Major Gary Ivey, Dr. Kerry Sudom, Waylon Dean, & Dr. Maxime Tremblav.

Produced for the Canadian Defence Academy Press by 17 Wing Winnipeg Publishing Office.

Issued by: Canadian Defence Academy.

Available also on the Internet.

Includes bibliographical references and an index.

ISBN 978-1-100-23434-2

Cat. no.: D2-329/2014E

- 1. Military morale--Canada. 2. Canada--Armed Forces--Military life.
- 3. Sociology, Military--Canada. 4. Military art and science--Canada.
- Psychology, Military. I. Sudom, Kerry, 1977- II. Tremblay, Maxime A., 1979-III. Ivey, Gary IV. Dean, Waylon V. Canadian Defence Academy VI. Canada. Canadian Armed Forces. Wing, 17

U22.3 H86 2014

355.10971

C2014-980022-3

Printed in Canada.
1 3 5 7 9 10 8 6 4 2

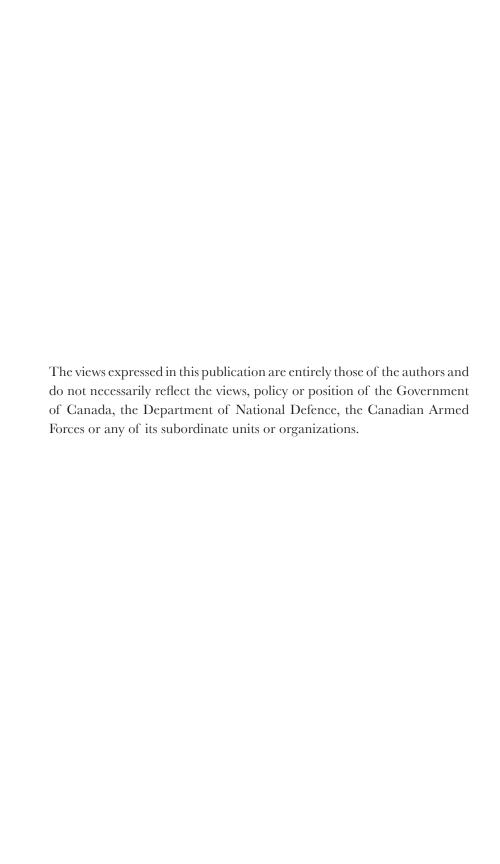


TABLE OF CONTENTS

Foreword	Lieutenant-General D. B. Millariii
Preface	Susan Truscottv
Acknowledgen	nentsvii
Chapter 1	How's Morale? What is Morale? Gary Ivey
Chapter 2	Operational Stress: The Canadian Armed Forces Experience Sébastien Blanc and E. Kevin Kelloway
Chapter 3	Psychological Resilience Donald R. McCreary and Deniz Fikretoglu
Chapter 4	Can We Prepare Soldiers for Captivity? The Application of Stress Inoculation Training Cindy Suurd Ralph
Chapter 5	Battlefield Ethics: What Influences Ethical Behaviour on Operations? Deanna L. Messervey and Jennifer M. Peach
Chapter 6	Obedience to Military Authority: A Psychological Perspective Peter Bradley
Chapter 7	Trust in Military Teams Megan M. Thompson, Barbara D. Adams, and Wayne Niven
Chapter 8	Cultural Intelligence Nick Chop and Karen D. Davis
Chapter 9	Post-Deployment Reintegration and its Relationship with Personal and Organizational Outcomes <i>Ann-Renée Blais, Megan M. Thompson</i> ,
	Donald R. McCreary and Deniz Fikretoglu

TABLE OF CONTENTS

Chapter 10	The Impact of Deployment on Families of Military Members		
	Kerry Sudom and Julie Coulthard	189	
Afterword	Leadership and the Human Dimensions of Military Effectiveness		
	Alan Okros 2	209	
Bibliography .		225	
The Editors		269	
The Authors		271	
List of Abbrev	viations 2	277	
Index	2	279	

FOREWORD

While strategy and equipment are important, our success on military operations depends largely on our people. Whether it is war, counterinsurgency operations, peacekeeping, deterrence operations, or humanitarian assistance at home and abroad, our members must be well prepared and well supported. As Chief of Military Personnel, my priorities and lines of operation are geared to ensure that Canadian Armed Forces (CAF) members are well developed, managed, led, recognized, cared for and supported so that they have the tools, heart and state of mind to persevere and succeed, no matter the mission. While these are leadership responsibilities, related policies and decisions should be informed by expert, objective, evidence-based advice. Fortunately for our men and women in uniform, the CAF is a world leader in the conduct and application of military personnel research and analysis. *The Human Dimensions of Operations: A Personnel Research Perspective* exemplifies this assertion.

This volume discusses a range of factors associated with the performance and well-being of soldiers, sailors and air personnel across the military deployment cycle and beyond. It provides a fresh look at familiar concepts in military literature and doctrine, such as leadership, morale and trust. At the same time, it brings well-deserved attention to concepts that are less well-known to the majority of those in uniform, such as battlefield ethics and cultural intelligence – concepts that have recently emerged as bona fide human dimensions for contemporary operations. This publication provides a comprehensive, organizational perspective on the stress and strain associated with military operations, and it recognizes the wider impact of our business with a discussion of the triumphs and tribulations experienced by our families.

This volume is a major achievement. It is the product of almost two decades of research across the CAF aimed at understanding how we can do our business more efficiently – research that involved the voluntary participation of thousands of our men and women in uniform. As well, it is the result of the collaborative, extracurricular efforts of military and civilian researchers across Director General Military Personnel Research and Analysis, Defence Research and Development Canada (Toronto) and the Canadian Defence Academy, as well as our partners in the wider

FOREWORD

academic and military communities. Finally, this book is a success for its unique ability to communicate behavioural/social scientific research to military personnel in a way that makes sense, while making a significant contribution to the wider scientific community.

The information contained in this book will resonate with CAF personnel at all rank levels. It shines the spotlight on those very important people-related factors, or human dimensions, which enable success on operations – factors that should not be overlooked or taken for granted during periods of high operational tempo. For that reason, I strongly recommend this book for all military leaders.

Lieutenant-General D. B. Millar Chief of Military Personnel Canadian Armed Forces

PREFACE

It is with great pleasure that I present *The Human Dimensions of Operations:* A Personnel Research Perspective. At Director General Military Personnel Research and Analysis (DGMPRA), our mission is to optimize operational and organizational effectiveness by providing expert, objective, evidence-based advice to leaders of the Canadian Armed Forces (CAF) and the Department of National Defence. This publication demonstrates how behavioural/social science research enhances military effectiveness. In some cases, this book challenges popular beliefs and the status quo. In all cases, it demonstrates the importance of attending to those people-issues, or human dimensions, that we can never afford to neglect – especially on operations.

This volume serves three main purposes. First, and in keeping with our mission, it was designed to enhance the operational effectiveness of the CAF by providing leaders with a comprehensive understanding of the human dimensions that affect the performance and well-being of their personnel. Second, this book gives back to the thousands of CAF members who have volunteered their time to participate in personnel research in support of operations since the mid-1990s. Our research results are not always accessible to all soldiers, sailors and air personnel. This book is our assurance to those men and women who suspect that their feedback may have fallen on deaf ears that their participation in personnel research has, and will continue to have, a major impact on leadership decisions that affect them and their families. Finally, this book was intended to contribute to the wider military and academic research communities. I am confident that our allies and scientists around the world will benefit from the cutting edge research conducted by this extraordinary team of military and civilian researchers.

The Human Dimensions of Operations: A Personnel Research Perspective contains ten short chapters that are targeted to soldiers, sailors and air personnel. In the first chapter, Gary Ivey illustrates the difficulties in assessing morale and offers a solution in the Human Dimensions of Operations (HDO) Project, our "flagship" research program that focuses on deployed CAF personnel. Chapters 2 to 4 discuss operational stress and what we can do to protect our soldiers from its effects. In Chapter 2, Sébastien Blanc and E. Kevin Kelloway make the distinction between stress, stressors and strain,

PREFACE

and provide an overview of operational stress from a CAF perspective, based on HDO Project research. Chapters 3 (Donald R. McCreary and Deniz Fikretoglu) and 4 (Cindy Suurd Ralph) discuss resilience and CAF initiatives to enhance resilience through training. Chapters 5 and 6 highlight the challenges associated with battlefield ethics (Deanna L. Messervey and Jennifer M. Peach) and obedience to authority (Peter Bradley) from a psychological perspective. In Chapter 7, Megan M. Thompson, Barbara D. Adams and Wayne Niven provide a comprehensive description of trust, including its antecedents and outcomes, and a synopsis of their efforts to measure it. In Chapter 8, Nick Chop and Karen D. Davis argue that cultural intelligence is a mission enabler in its own right, especially in contemporary military operations. Chapters 9 and 10 discuss issues that transcend deployment. Ann-Renée Blais, Thompson, McCreary, and Fikretoglu (Chapter 9) describe the critical stage of postdeployment reintegration, which can be a positive or negative experience, depending on various individual and organizational factors. Chapter 10 (Kerry Sudom and Julie Coulthard) focuses on the impact of operations on the families of our military personnel – those very important sources of inspiration and support. In the Afterword, Alan Okros reflects on the leadership implications for the human dimensions discussed throughout the book – the "So what?" for military leaders.

I would like to thank the authors and the publication team for taking on this daunting task. I acknowledge that it went above and beyond their normal responsibilities – their initiative and dedication are commendable. A special thank you is extended to those authors and reviewers external to DGMPRA for their significant contribution to this unprecedented compendium of human dimensions of operations research.

Susan Truscott Director General Military Personnel Research and Analysis

ACKNOWLEDGEMENTS

We, the editors, would like to thank all of the authors for their outstanding contributions to this important publication. Their enthusiasm, commitment and patience made the process enjoyable.

We are indebted to the following subject matter experts (in alphabetical order) who, in addition to the authors, conducted peer reviews of the book chapters. Their feedback made this book all the better!

Colonel Carl Castro Military Operational Medicine Research Program Department of Defense – United States

Dr. Tzvetanka Dobreva-Martinova Director Research Operational and Organizational Dynamics Department of National Defence – Canada

Dr. Sanela Dursun Director Research Personnel and Family Support Department of National Defence – Canada

Patrick Gagnon
Canadian Forces Personnel and Family Support Services
Department of National Defence – Canada

Dr. Matthew Gould Defence Clinical Psychology Service Ministry of Defence – United Kingdom

Suzanne Jaenen (Captain retd) Canadian Special Operations Forces Command Department of National Defence – Canada

Dr. Theresa Kline Department of Psychology University of Calgary – Canada

Dr. James Martin (Colonel retd) Graduate School of Social Work and Social Research Bryn Mawr College – United States

ACKNOWLEDGEMENTS

Dr. Peter Murphy (Colonel retd) Australian Defence Force Psychology Organisation Australian Defence Force – Australia

Dr. Bradley Nindl United States Army Research Institute of Environmental Medicine Department of Defense – United States

Dr. Gary Percival Joint Personnel Recovery Agency Department of Defense – United States

Dr. Tara Reilly
Director General Personnel and Family Support Services
Department of National Defence – Canada

Lieutenant-Colonel David Scholtz Director Research Personnel and Family Support Canadian Armed Forces – Canada

Dr. Michael Spivock Director General Personnel and Family Support Services Department of National Defence – Canada

Dr. Mark Zamorski Canadian Forces Health Services Group, Department of National Defence – Canada

We would like to thank the diligent teams at the Canadian Defence Academy Press and the Wing Publishing Office at 17 Wing Winnipeg for their assistance with the transition from manuscript to book.

Major Gary Ivey would like to thank Ms. Susan Truscott and Dr. Tzvetanka Dobreva-Martinova for supporting this project from the outset, Lieutenant-Colonel Jeff Stouffer for helping him get started, and Dr. Kelly Farley (Lieutenant-Colonel retd) for his counsel throughout. In addition, he would like to thank his co-editors, whose efforts made this publication possible. Finally, Major Ivey would like to thank his colleagues on the Operational Effectiveness and Leadership Team for their motivation and

ACKNOWLEDGEMENTS

enthusiasm for accomplishing "mission" objectives (in alphabetical order): Major Warren Armstrong, Captain Peter Beatty, Lieutenant-Colonel Sébastien Blanc, Ms. Inez Dekker, Dr. Heather McCuaig Edge and Ms. Megan Therrien.

İΧ

CHAPTER 1:

HOW'S MORALE? WHAT IS MORALE?

Gary Ivey

It is not enough to fight. It is the spirit which we bring to the fight that decides the issue. It is morale that wins the victory.¹

General George C. Marshall

INTRODUCTION

Morale has long been seen as a vital component of military operations – if not the decisive component in military success.² Nineteenth-century military theorist Carl von Clausewitz argued that the enemy's loss of morale was the key to victory.3 Both General Dwight D. Eisenhower and Field-Marshal Bernard Montgomery described morale as the greatest single factor in war.⁴ Since the 1980s, militaries have sought to measure morale scientifically, on the assumption that morale is a proxy for readiness and effectiveness. But the results of these efforts to measure morale have been mixed, likely because of the lack of conceptual clarity about what exactly is morale. Morale has been used interchangeably with various related psychological constructs, including cohesion,⁵ combat motivation, 6 job satisfaction and work engagement. 8 In the Canadian Armed Forces (CAF) and other military organizations morale is also associated with service members' well-being. As well, there is a lack of consensus on whether morale is an individual psychological phenomenon, 9 a group phenomenon, 10 or a psychological state shared by members of a group.¹¹

The purpose of this chapter is to provide greater insight into the psychological phenomenon called morale and the challenges associated with measuring it. I begin by illustrating the inconsistent use of morale in military doctrine and the divergent views of morale among CAF leaders. Next, I explain how the lack of conceptual clarity affects the measurement of morale and the implications of mismeasurement. I then describe a personnel research approach to estimating morale in CAF units and – acknowledging that research support is not accessible to leaders at all levels – I conclude with a recommendation for a morale-specific doctrine

that defines morale and offers evidence-based guidance for leaders on how to enhance and maintain it among subordinates.

MORALE IN MILITARY DOCTRINE

Morale figures prominently in CAF doctrine, but the term is never explicitly defined, it is not always used consistently and it is often conflated with concepts as disparate as personal well-being and motivation to fight.

The CAF's capstone doctrine publication, *Canadian Military Doctrine*, cites morale as an aspect of the *moral component* of military power¹² and "maintenance of morale" is one of the ten principles of war.¹³ The description associated with maintenance of morale is as follows:

After leadership, morale is the most important element in ensuring cohesion and the will to win. Morale is, however, sensitive to material conditions and should never be taken for granted. It is nurtured through good leadership, sound discipline, realistic training, confidence in equipment and a sense of purpose.¹⁴

This description points to the antecedents (causes) and outcomes (effects) of morale, but morale itself is not defined. CAF doctrine does appear to distinguish between morale and terms that are often used interchangeably with morale. Specifically, the doctrine states that "the moral component provides the cultural and ethical base from which is derived morale, cohesion, esprit de corps and fighting spirit." Similarly, in its discussion on developing the warrior spirit, the U.S. Army suggests that "the military manifestation of the human spirit involves conscious cultivation of individual and unit morale, cohesion, esprit de corps and will to persevere against superior numbers to achieve victory." Still, it is unclear whether the authors of the passages quoted above acknowledge the distinctiveness of these social and psychological constructs (i.e., morale, cohesion, etc.) or whether they are simply lumping together conceptually related terms.

Morale in the fighting (or warrior) spirit sense is captured in another CAF doctrine publication, *The Canadian Forces Operational Planning Process*, which declares that the "second component of shield or force protection includes

actions to keep soldiers healthy and to maintain fighting morale."¹⁷ The same publication discusses morale in the context of commanders' duty to maintain it among their subordinates (e.g., "commanders are responsible for the health, welfare, morale and discipline of their personnel."¹⁸). Again, though, a definition of morale is not provided.

The absence of a definition of morale in doctrine is not unique to the CAF. Neither the U.S.¹⁹ nor the Australian²⁰ militaries define morale in their capstone defence doctrine publications. Nor is morale defined in the 439 pages that constitute the North Atlantic Treaty Organization's (NATO) *Glossary of Terms and Definitions*. Morale is mentioned twice in NATO's glossary, but only as the intended purpose of harassing fire and subversion—that is, these definitions contain the phrases "to lower morale" or "undermining morale." While the glossary provides definitions for *catapult*, *road hazard sign*, and *twilight*—among many other important "military" terms—a definition of morale is nowhere to be found.

Like the CAF, the Australian Defence Force (ADF) has ten principles of war, one of which is morale.²³ The ADF does not define morale in precise terms. Relative to the CAF's description, however, the ADF's is more comprehensive in that it offers a list of factors that affect morale.

The ADF doctrine alludes to defeating the enemy's morale through combat and psychological operations (PSYOPs). CAF doctrine also acknowledges the importance of attacking our enemies psychologically, citing PSYOPs as a force multiplier for commanders in the full spectrum of operations. According to the CAF joint doctrine manual, *Psychological Operations*, the aim of PSYOPs is to attack the enemy's "motivation and morale" and to "weaken the will of the enemy or adversary by lowering morale." Proponents of the view that morale is analogous to motivation and the will to fight might argue, however, that the mentions of morale in these statements are redundant.

British defence doctrine is similar to CAF doctrine. "Maintenance of morale" is one of its ten principles of war,²⁶ and morale is considered an aspect of the moral component of military power.²⁷ Unlike CAF doctrine, however, British defence doctrine does provide a definition of morale:

"morale is a positive state of mind derived from inspired political and military leadership, a shared sense of purpose and values, well-being, perceptions of worth and group cohesion." Unfortunately, any conceptual clarity this definition might have offered is muddied by two subsequent references to morale in the same doctrinal statement — one describing morale as "a sense of confidence and well-being" and the other as "the will to fight and a confidence in succeeding." Where the earlier definition emphasized a positive state of mind and a sense of well-being, the later references

Morale as a Principle of War

From the *Foundations of Australian Military Doctrine*, 3rd edition:

- Morale is an essential element of combat power. High
 morale engenders courage, energy, cohesion, endurance,
 steadfastness, determination and a bold, offensive spirit.
 In any given situation, military success may depend as
 much on morale as on material advantages. Morale of
 the fighting force is an embodiment of the national will
 to resist aggression and coercion.
- The basis of military morale includes primarily a clear understanding of, and belief in, the aim. Those personnel involved must have a conviction about the necessity, legality and morality of an operation. High morale is built and maintained by effective leadership, good training, appropriate discipline, good sustainment arrangements and confidence in the support of the Australian people.
- History abounds with examples demonstrating that effective leadership will sustain high morale even when all other factors are against it.
- Actions taken to destroy the adversary's morale directly through combat, and indirectly through psychological operations, are an important means of reducing the adversary's combat effectiveness. Conversely, actions taken to sustain popular support for the ADF, through public information and other activities, can also play an important role in maintaining morale.

to morale associate it with confidence and the will to fight. It should go without saying that adding concepts with similar but different meanings to a definition renders it more diffuse.

In a chapter dedicated to morale in The Military Leadership Handbook, authors assert that morale is "one of, if not the greatest, combat multipliers"31 and "a critical component in the effectiveness of any unit organization."32 authors admit that morale means different things to different people; hence, they draw on historical and select scientific literature to distill morale down to "the spirit, determination and confidence within a group to overcome challenges, dangers and obstacles to achieve an assigned task, self-imposed goal or situation in which they find themselves." Surprisingly, the CAF leadership doctrine on which *The Military Leadership Handbook* is grounded does not define morale, despite its prominent status as a key function of leading people – that is, to "monitor morale and ensure subordinate wellbeing." The doctrine asserts that this function is equivalent to the principle of leadership, "Know your subordinates and promote their welfare." I should point out that welfare does not figure anywhere in the handbook's characterization of morale. In short, then, *The Military Leadership Handbook* is supposed to be grounded in the CAF's leadership doctrine; yet the definition of morale in the handbook is, to a degree, at odds with the doctrine.

As I alluded to above, CAF leadership doctrine deviates from the fighting notion of morale. The doctrine characterizes morale as an outcome of positive leadership attributes and asserts that morale complements subordinate welfare. In the words of the doctrine: "Supportive influence reflects a concern for the general welfare of subordinates and is intended to assist them in resolving personal problems or to improve their morale and well-being."35 This statement is closely aligned with the CAF Chief of Military Personnel's "Morale and Welfare" line of operation. 36 Under this line, Director General Personnel and Family Support Services develops and implements services and activities that enhance the morale, welfare and well-being of CAF members and their families, such as the Canadian Forces Exchange System (CANEX), financial services and programs aimed at providing fitness, sport, amenities, casualty support, and family support. Other groups responsible for morale in the CAF include military chaplains, who advise commanders on spiritual, religious, and ethical matters related to "morale/well being,"³⁷ and the Music Branch, which provides music designed "to support [CAF] operations, foster morale and esprit de corps."38 The CAF is not unique in its alignment of morale and welfare. U.S. military doctrine also makes morale and welfare complementary under its "Morale, Welfare, and Recreation" line of operation, which is defined as "the merging of multiple unconnected disciplines into programs which improve unit readiness, promote fitness, build unit morale and cohesion, enhance quality of life, and provide recreational, social, and other support services."39

MILITARY LEADERS' VIEWS ON MORALE

In the previous section I highlighted the importance of morale in modern military doctrine, but also the inconsistencies in how the term is applied: morale is associated in doctrine with concepts as distinct as welfare, well-being, will to fight, esprit de corps, and cohesion. I am not suggesting that these concepts are not in any way related. On the contrary, it is logical to assume, for example, that low team cohesion can negatively impact both individual well-being and motivation, and there is research out there to support that.⁴⁰ I am simply pointing out that the broad and sometimes divergent application of the term morale points to a lack of understanding of what morale is. The lack of conceptual clarity on the doctrinal side led me to investigate the views of members of the largest group in the CAF charged with the maintenance of morale, namely, senior non-commissioned officers (NCO) and warrant officers (WO). Accordingly, I put two questions to these senior leaders:

"What is morale?"

"What do you do to ensure the morale of your subordinates?"

I submitted the questions to senior NCOs and WOs across the Canadian Army, the Royal Canadian Navy and the Royal Canadian Air Force through their respective research coordinators. Within one month, I received 44 responses from members varying in rank from Sergeant/Petty Officer to Chief Warrant Officer/Chief Petty Officer 1st Class. 41 The responses were independently analyzed by two researchers using thematic analysis, a technique that examines text to identify themes. 42

The results suggested that this cross-section of CAF leaders have different ideas about what is morale and the conditions required to ensure it. In response to the question, "What is morale?" many respondents did not define morale directly. Instead, they discussed the factors that they believe affect morale, along with the factors affected by low or high morale – for example, "Morale is what makes a unit successful or a failure."⁴³ The majority of views on morale fell into two themes: well-being and motivation. Other themes included enthusiasm, job satisfaction,

cohesion, esprit de corps, work engagement, discipline and confidence. Some examples of the responses to the question "What is morale?" are provided below:

[Morale is] the thoughts and feelings (attitude) that members have towards their work, their occupation, their peers, their supervisors/superiors and the [CAF] in general...in essence, their life in the [CAF].⁴⁴

Morale is a sense of well-being and personal strength felt both individually and among groups of sailors.⁴⁵

Morale – discipline and confidence of your subordinates.⁴⁶

Morale is the cohesion that gels a formed body of soldiers together in a fight against the same goals.⁴⁷

Morale to me includes the state of motivation, enthusiasm and professional focus needed to achieve the aim of the mission as well as maintain a healthy and professional working climate.⁴⁸

Avoir le moral c'est lorsque nos besoins, en tant que personne, sont comblés, soit au niveau personnel et professionnel.⁴⁹ [Having morale is when our needs as a person are met, at a personal and professional level.]

Morale relates to the happiness/satisfaction and well-being of personnel.⁵⁰

Morale, esprit de corps, is instilling a sense in all people who belong to a unit or section that they matter to the unit and that they are not just a number.⁵¹

Morale can best be described as someone's outlook on a situation or environment.⁵²

In response to the question "What do you do to ensure the morale of your subordinates?" almost all respondents emphasized the role of strong and effective leadership. Leadership served as the backdrop for other prominent

themes that emerged, including assuring that subordinates recognize the value in their respective jobs, that they are confident in their skills and abilities, that they have a clear understanding of, and commitment to, mission objectives, as well as ensuring a fair work environment. Smaller themes that emerged involved assuring trust and cohesion among teams, a sense of unit affiliation, two-way communication and discipline. Examples are provided below:

The best way to ensure both individual and group morale is to provide strong leadership. Leading people on an individual basis means treating every member of the unit with respect, equality, fairness and occasionally firmness when required.⁵³

I believe that the biggest barrier to maintenance of morale is the lack of clarity for sailors in the what, where, why questions. If they don't know what they are doing, where they are going (physically or philosophically), and have no idea of why it is important that they go and do the task, they will have no focus and little cause to feel positive or empowered about their jobs or role in the [CAF].⁵⁴

The biggest morale boost is ensuring that subordinates are meaningfully employed as often as possible to bolster their sense of achievement and worth.⁵⁵

The NCOs ensure the troops are well trained, well equipped and have the right support (and knowing they will be supported) to survive on the battlefield...if the soldiers feel that [the] nation and its resources are behind them and their families we can develop a fighting spirit and their confidence as a unit.⁵⁶

While deployed in Afghanistan, I made sure my people knew that I was willing to take the same risks that they were, and went on an equal, and sometimes greater, number of patrols.⁵⁷

I take a one-on-one when talking to each member personally (open-door policy). Taking the time to understand where they are coming from and what's going on in their life on a personal level. This gives them a [sense] of understanding feeling from a

personal level and gives me foresight into [situations] that may occur. Once this has [occurred] on an individual level, I'm able to develop an understanding of the section as a whole on how it will affect the morale level.⁵⁸

To ensure positive morale of my subordinates, I try to remember the little things that often go unnoticed; such as telling them when they have done a good job and remembering their birthdays. Often the simplest act means the most.⁵⁹

I believe the best way to ensure morale is recognizing that someone is valuable and needed. By providing good mentorship and training with feedback and praise on performance is the key to my [section's] morale.⁶⁰

These quotations reveal the breadth of views on morale across a small cross-section of CAF senior NCOs and WOs. For some, morale is an individual state of mind; for others morale is a group-level (i.e., section, unit) construct. Morale represents an emotional state or well-being for some; for others morale is understood in terms of cohesion or motivation toward accomplishing objectives. Strategies to ensure morale vary as well. For some, the aim is clearly to ensure individual well-being; for others, the aim is to maintain levels of motivation and enthusiasm toward work or mission objectives.

I offer no judgement about the correctness of the responses provided. On the contrary, I suggest that the inconsistent views of these senior leaders are consistent with the inconsistent treatment of morale in military doctrine and the scientific literature. And without a clear definition of morale in doctrine, or direction on how to ensure it, the accuracy of individual views cannot be evaluated. But I will put forward that these findings are problematic from both a leader intervention standpoint and operational planning standpoint. Regarding the former, the sheer variety of opinions about morale expressed by senior NCOs and WOs implies that simply asking soldiers "How's morale?" may not be sufficient to address a leader's concern and, as a consequence, steps to enhance morale may prove ineffective. A soldier experiencing difficulties in his (or her) personal life, for example, might rate his own morale as low, especially

if he views morale as a general state of well-being (e.g., cheerful vs. miserable). The mission-oriented leader's strategy to improve this soldier's morale by empowering him on the job will likely prove ineffective in the

Simply asking soldiers "How's morale?" may not be sufficient to address a leader's concern and, as a consequence, steps to enhance morale may prove ineffective.

face of his overarching problems at home. From an operational planning standpoint, misjudging friendly troops' morale can impact

the operational readiness and effectiveness of our own military units — and miscalculating enemy force morale can have equally detrimental effects on mission success. Given how high the stakes are, the problem of measuring morale should be the subject of a systematic and scientific inquiry. In the following section, I offer a behavioural science approach to the measurement of morale.

A SCIENTIFIC APPROACH TO MEASURING MORALE

Morale is what behavioural scientists call a complex psychological construct. Like other constructs, such as anger and fear, morale is intangible. Unlike height, weight or depth, psychological constructs cannot be observed directly. We know how anger looks, but we cannot measure it in inches or pounds, or point to where it begins and ends. Instead, the existence of anger is inferred from certain behaviours, and it is assumed to follow from certain circumstances. The same is true for morale. Leaders make assumptions about the state of morale by observing body language and behaviours and by asking soldiers to rate their own morale or the morale of the group at large. As examples:

Although it is difficult to observe [morale] directly, it (whether high or low) can be gauged by the behaviour, mood, interaction of personnel in the group/team, increasing level of individuals reporting to the sick parade, drug/alcohol and disciplinary problems, poor dress and deportment, and higher levels of absence without leave.⁶¹

The success of a PSYOPS programme to lower motivation and morale would be difficult to quantify. PSYOPS personnel can

collect and use indirect indicators of motivation and morale, such as the success or failure of an adversary to attract recruits.⁶²

As I previously showed, however, CAF leaders have their own mental schemas, or ideas, of what morale is and individual strategies to measure morale (in individuals and in military units) may vary according to those schemas — each leader honing in on the behaviours and attributes he/she thinks indicate the state of morale among his/her subordinates. In research psychology terms, the term morale appears to lack construct validity. Construct validity concerns whether a psychological construct (like morale) being measured in a particular way is a legitimate construct, and if the manner in which it is being measured is the most appropriate. For a measure of morale to be useful, it must be valid and reliable. In other words, a measure must actually measure morale — and not something else — and the measure of morale must be close to actual morale. The problem, of course, is that the subjective and diverse methods used by military leaders to assess morale might be neither valid nor reliable.

Establishing valid and reliable measures of psychological constructs have important implications. For example, failure of human resources personnel to use valid and reliable tests of personality, intelligence and other relevant job criteria as part of their employment selection system could result in the inadvertent hiring of the wrong person for the job. Not only would this affect organizational effectiveness, but it has ethical implications because a hiring decision was not made in a fair and just way. Moreover, misdiagnosing someone with a mental health disorder as a result of inappropriate measurement could have serious emotional, social, medical and employment consequences. If military history and CAF doctrine are indications of its magnitude, the implications for underestimating or overestimating morale in a military context may be just as grave, if not more.

Fortunately, the CAF already has the capacity to measure morale using more objective scientific methods. The Operational Effectiveness and Leadership Team (a.k.a. OEL) at Director General Military Personnel Research and Analysis (DGMPRA) offers organizational consulting

THE HUMAN DIMENSIONS OF OPERATIONS 11

services through the Human Dimensions of Operations (HDO) Project and the Unit Morale Profile (UMP). Based on psychological theories and research, organizational consulting in the CAF involves data (information) collection and analysis by personnel researchers for the purpose of gathering information, informing decisions and ensuring operational effectiveness.

Morale is at the heart of the current HDO and UMP research model. In both operational and non-operational settings, OEL measures morale, those factors that affect it, and those affected by it. As I suggested earlier, morale must be defined to be measured with enough specificity that it does not become a "catch-all" term for other psychological constructs such as well-being, cohesion or esprit de corps. OEL has adopted a definition of morale proposed by researchers Britt and Dickinson⁷⁵ and endorsed by a NATO Research and Technology Organization task group. OEL measures morale defined as "a service member's level of motivation and enthusiasm for accomplishing mission objectives" or "work objectives" in the absence of a specific mission. OEL does not use traditional "How's morale?" type questions to measure morale; instead, the team uses a multiple-item scale? that is grounded on a definition and that has demonstrated sound psychometric properties — in other words, there is some scientific evidence that the measure is valid and reliable.

OEL's current conceptual model of morale (see Figure 1.1) was inspired by Britt and Dickinson's positive psychology model of morale during military operations. ⁷⁹ According to Britt and Dickinson, morale is an individual psychological phenomenon affected by mission-relevant factors, leadership, a sense of collective efficacy at the unit level, and various individual factors (e.g., personality traits, military identity) through their effects on individuals' sense of optimism, confidence and purpose. It is important to note that OEL's model was adapted for organizational consulting purposes, thus it is parsimonious, prescriptive and only includes factors that are within a commanding officer's scope of influence. This means that individual differences associated with personality, psychopathology, personal social support networks and external factors (e.g., public support for a mission) are not included in the model. Although OEL accepts that

these factors can impact morale, they are not accounted for because there is little, if anything, a commanding officer can do with this information. Although the majority of factors and sub-factors are adaptive (positive), OEL's model acknowledges the direct effects of job demands on morale. After all, it is important for unit leaders to understand the impact the work environment is having on their personnel (i.e., stressful, challenging), especially when they can influence conditions. All the same, OEL's model is grounded in CAF doctrine and ethos and therefore includes factors of interest to senior CAF leaders. For example, factors associated with ethics (i.e., fairness, freedom to make ethical choices) are included as antecedents of morale, given the CAF's emphasis on defence ethics.⁸⁰

There were several catalysts to the HDO Project,⁶⁵ including the recognition that operational stress can adversely affect individual and group performance, as well as the short- and long-term well-being of CAF personnel. Another was the recognition that there was little information on the human dimensions of peace support operations, which the CAF was heavily involved in at the time in the former Republic of Yugoslavia. Finally, the HDO Project was instigated by the acknowledgement that the scientific measurement of morale and leadership could assist commanders to lead more effectively.

The first HDO surveys were developed in 1996 by personnel selection officers⁶⁶ employed in the CAF's personnel applied research unit. Based on a conceptual model of combat readiness,⁶⁷ and the notion that combat stress is the "flip side" of combat readiness, the focus of early HDO surveys was on operational stress,⁶⁸ strain and coping. Later versions adopted measures associated with post-deployment reintegration,⁶⁹ battlefield ethics,⁷⁰ conduct after capture training⁷¹ and trust,⁷² among other dimensions covered in this book. But while HDO survey content evolved over the years as a function of changing CAF priorities and advancements in the science of measuring work-related attitudes, its goal to assist tactical commanders in gauging the psychosocial state of their personnel has endured.⁷³ To that end, all versions of the HDO survey have included measures of morale and related factors, such as cohesion and confidence in leadership.

In 2001, the scope of organizational consulting services was extended to non-operational settings with the development of the UMP. Like the HDO survey, the UMP survey began as an organizational development tool designed to advise commanding officers on the psychosocial state of readiness by assessing the attitudes, perceptions and well-being of unit personnel. UMP assessments have been conducted extensively across the Royal Canadian Navy, the Canadian Army, the Royal Canadian Air Force, Canadian Special Operations Force Command and Military Personnel Command, in addition to various branches and National Defence Headquarters directorates and divisions.⁷⁴

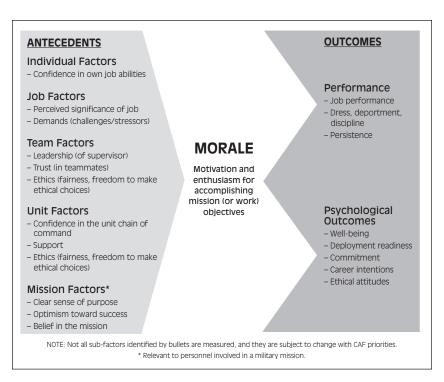


FIGURE 1.1: OEL'S CONCEPTUAL MODEL OF MORALE

OEL's model treats morale as an individual-level phenomenon that operates within the context of a unit. Unit morale is simply the aggregate of the morale of individuals in the unit, and it is understood to be influenced by internal and external factors. The model implies that morale can be directly affected by individual factors (i.e., confidence in one's ability to do one's job), job factors (i.e., the perceived significance of one's job and job demands), team factors (i.e., leadership, trust, ethics), and unit factors (i.e., confidence in the chain of command, support, ethics). On operations, mission factors can impact morale (i.e., a clear sense of purpose, achievable objectives and belief in the mission). For OEL, morale is not synonymous with well-being. Instead, morale is understood to affect individual well-being and other psychological outcomes (e.g., individual deployment readiness perceptions, commitment, career intentions, ethical attitudes) as well as performance (e.g., job performance, dress, deportment, discipline, persistence in the face of adversity). By design, OEL's model focuses on

soldiers' attitudes and perceptions and, as such, excludes basic needs associated with human motivation⁸¹ and morale,⁸² such as food, water and protection from the elements.

Nothing is quite so effective in building up a group's morale and solidarity... as a steady diet of small triumphs. 83

Gwynne Dyer

...one of the oldest myths in the military book – that morale comes from discipline...The process is precisely the reverse... true discipline is the product of morale.⁸⁴

Samuel L. A. Marshall

It is worth pointing out that OEL's morale model incorporates most of the factors deemed characteristic of morale (or associated with it) by the senior NCOs and WOs in my survey. The value of OEL's model, however, is that it provides structure to all of those factors: it defines morale and it distinguishes between factors that are antecedents (causes) and those that are outcomes (effects). Another advantage a research model has over "gut feel" is that it can be tested scientifically, using data obtained from soldiers. A model of morale backed by scientific evidence can provide leaders with greater confidence in the intervention strategies they employ. Further, HDO and UMP research is less subjective than leaders' personal assessments because the findings are based on anonymous, and therefore candid, responses, and because they are based on the statistical analysis of a large proportion of unit members. As well, HDO and UMP research is unbiased because the researchers are removed from the unit chain of command and have nothing to gain (or lose) from overestimating or underestimating morale. I should point out that the definition of morale and its associated scale adopted by OEL remain somewhat limited in their conceptual specificity - motivation and enthusiasm, after all, are distinct psychological constructs in their own right, and they may not always coincide. Clearly, further research toward achieving greater conceptual clarity is still required. Nonetheless, the current definition and scale are an improvement over the status quo because they focus survey respondents

on how they feel in the context of achieving mission (or work) objectives, as opposed to measuring morale in the general satisfaction sense. OEL has thus reduced the potential for incongruence between morale as they intend to measure it and soldiers' own ideas of what morale is, thereby minimizing the gap between measured morale and actual morale.

Of course, HDO and UMP research is designed to supplement the impressions of command teams, not to replace them. The unfiltered feedback from unit personnel can confirm impressions, or the "gut feel" unit leaders have about the psychosocial climate of their unit, and it can identify issues that otherwise might remain "below the radar." HDO and UMP research findings can identify areas that need attention, such as large-scale low morale, high rates of psychological distress, or pervasive pessimism about a mission.

There are many potential applications for HDO and UMP research. Because it focuses on the psychosocial factors associated with military operational readiness – such as confidence in leadership, trust, morale and ethics - HDO and UMP research can inform command decisions regarding readiness. For example, HDO surveys administered prior to an operational deployment can inform operational readiness (OPRED) declarations. The Canadian Army adopted this application in support of Operation ATTENTION⁸⁵ and, as I write this, HDO Readiness Surveys are systematically informing commanders' OPRED declarations for all Task Forces preparing to deploy to Afghanistan. Moreover, the Army recently endorsed the use of UMP research to inform OPRED declarations for high readiness brigades on standby for any crisis at home or abroad. Similar applications would be suitable for air, sea and special forces operations as well. And because change can be stressful, HDO and UMP research can assist command teams by monitoring the attitudes, morale and wellbeing of unit personnel through periods of change, such as before or after a change of command, a unit restructuring, a new mission or modified operational priorities, or in response to new initiatives, procedures, orders, directives, or policies. Nor are these applications exhaustive. Indeed, an OEL-based organizational consultation would be valuable to a command team in any circumstance.

CONCLUDING REMARKS

In this chapter I looked at the phenomenon called morale from a behavioural science perspective and, in doing so, I challenged the status quo with respect to how military leaders monitor morale among their subordinates. I have shown that morale has different connotations in military doctrine and among CAF leaders and academics who study morale. I argued that

the lack of conceptual clarity can lead individuals and organizations to miscalculate morale. And, if morale is as crucial to mission success as history and doctrine suggest, it must follow

If morale is as crucial to mission success as history and doctrine suggest, it must follow that underestimating or overestimating it can result in heavy costs to military operations, organizations and personnel.

that underestimating or overestimating it can result in heavy costs to military operations, organizations and personnel.

In light of the problems with the traditional approach to monitoring morale in military units, I offered a behavioural science approach to measuring morale in the form of HDO and UMP research. Since HDO and UMP research support is not accessible to leaders at all levels of the CAF, I proposed the need for the CAF to define morale in its doctrine to

ensure that leaders and subordinates at all levels are speaking the same language. In the interim, military leaders should be aware that morale may mean different things to different people

Military leaders should be aware that *morale* may mean different things to different people in different contexts.

in different contexts. Consequently, in monitoring morale, leaders should be specific in their interests: if they are concerned about their troops' motivation and/or enthusiasm for accomplishing mission objectives, they should focus on behavioural indicators and feedback of that nature, lest they taint their impressions with other factors.

Let me note in closing that this is not the first research paper to make this suggestion. In 2007, a senior CAF officer pointed out that morale had not been defined in joint doctrine and suggested that, as a result, few commanders could succinctly define it or understand how to measure it.⁸⁶ Defining morale in doctrine could yield truer answers to the popular question "How's morale?" As with CAF leadership doctrine,⁸⁷ morale doctrine should be grounded in scientific evidence in addition to

historical knowledge. Further, morale doctrine should include prescriptive information for leaders on how to ensure morale among their subordinates. Such a change will increase the likelihood that the steps taken by leaders to sustain or improve morale will have the desired outcomes, thereby assuring the overall readiness, effectiveness and sustainability of the CAF.

The amount of research devoted to the maladaptive psychological response pattern of PTSD [posttraumatic stress disorder] is much larger than that devoted to the more adaptive phenomenon of morale. We do not mean to suggest that too much research has been devoted to PTSD, but rather point out that research in military psychology has been focused more on understanding what causes a minority of service members to develop psychological disorders than on what causes a large number of service members to have high levels of personal morale.⁸⁸

Thomas Britt and James Dickinson

ENDNOTES

- Marshall as cited in H. A. DeWeerd, ed., Selected Speeches and Statements of General of the Army George C. Marshall Chief of Staff United States Army (Washington: Infantry Journal, 1945), 122.
- 2. For example, Carl von Clausewitz, On War, ed. and trans. Michael Howard and Peter Paret (Princeton: Princeton University Press, 1976), 233–4; Frederick J. Manning, "Morale, Unit Cohesion, and Esprit de Corps," in Handbook of Military Psychology, eds. Ruven Gal and A. David Mangelsdorff (New York: John Wiley & Sons Inc., 1991), 453–70; Marshall as cited in DeWeerd, Selected Speeches, 122. Thomas W. Britt and James M. Dickinson, "Morale During Military Operations: A Positive Psychology Approach," in Military Life: The Psychology of Serving in Peace and Combat: Volume 1, Military Performance, eds. Thomas W. Britt, Carl A. Castro, Amy B. Adler (Westport: Praeger Security International, 2006), 157–84; Samuel L. A. Marshall, Men Against Fire: The Problem of Battle Command (Norman: University of Oklahoma Press, 2000).
- 3. Clausewitz, On War, 233-4.
- Dwight D. Eisenhower, Crusade in Europe (Baltimore: John Hopkins University Press, 1948), 210; Bernard L. Montgomery, The Memoirs of Field-Marshal Montgomery (London: Collins, 1958), 36.
- 5. For example, Kelly M. J. Farley and Jennifer A. Veitch, "Measuring Morale, Cohesion and Confidence in Leadership: What are the Implications for Leaders?" The Canadian Journal of Police & Security Services 1, no. 4 (2003): 353–64; Boas Shamir, Esther Brainin, Eliav Zakay, and Micha Popper, "Perceived Combat Readiness as Collective Efficacy: Individual- and Group-level Analysis," Military Psychology 12, no. 2 (2000): 105–19.
- For example, Alexander Watson, Enduring the Great War: Combat, Morale and the Collapse in the German and British Armies, 1914–1918 (Cambridge: Cambridge University Press, 2008).
- For example Jolanda M. Snijders, "Morale and Job Satisfaction," paper presented at the 49th annual meeting of the International Military Testing Association, Gold Coast, Queensland, Australia, October, 2007.
- 8. For example, Frank van Boxmeer, Christiaan Verwijs, Robert de Bruin, Jacco Duel, and Martin Euwema, "A Direct Measure of Morale in the Royal Netherlands' Armed Forces Morale Survey: Theoretical Puzzle, Empirical Testing and Validation," paper presented at the 49th annual meeting of the International Military Testing Association, Gold Coast, Queensland, Australia, October, 2007.
- For example, Lee H. Ingraham and Frederick J. Manning, "Cohesion: Who Needs it, What is it, and How do we get it to them?" Military Review 61, no. 6 (June 1981): 3–12.

- 10. For example, Reuven Gal, "Unit Morale: From a Theoretical Puzzle to an Empirical Illustration An Israeli Example," *Journal of Applied Social Psychology* 16, no. 6 (1986): 549–64. Marshall, *Men Against Fire*, 158.
- 11. For example, Stephan J. Motowidlo and Walter C. Borman, "Behaviorally Anchored Scales for Measuring Morale in Military Units," *Journal of Applied Psychology* 62, no. 2 (1977): 177–83.
- Department of National Defence, Canadian Military Doctrine, Canadian Forces Joint Publication 1.0 (Kingston: Department of National Defence, 2009), 2–3, http:// www.cfd-cdf.forces.gc.ca/cfwc-cgfc/Index/JD/CFJP%20-%20PDF/CFJP%20 01/CFJP-01_Cdn_Mil_Doctrine_EN_2011_09.pdf.
- 13. Ibid., 2-5.
- 14. Ibid., 2-5.
- 15. Ibid., 2-8.
- Department of Army Headquarters, The U.S. Army Study of the Human Dimension in the Future 2015–2024, U.S. Army Training and Doctrine Pamphlet 525-3-7-01 (Virginia: Department of the Army Headquarters, 2008), 56, http://www.tradoc. army.mil/tpubs/pams/p525-3-7-01.pdf.
- Department of National Defence, Canadian Forces Operational Planning Process, Canadian Forces Joint Publication 5.0 (Kingston: Department of National Defence, 2008), 2–9, http://publications.gc.ca/collections/collection_2010/ forces/D2-252-500-2008-eng.pdf.
- 18. Ibid., 1-1.
- 19. Joint Chiefs of Staff, *Doctrine for the Armed Forces of the United States*, Joint Publication 1 (Washington: Joint Chiefs of Staff, 2013), http://www.dtic.mil/doctrine/new_pubs/jp1.pdf.
- Department of Defence (Australia), Foundations of Australian Military Doctrine, Australian Defence Doctrine Publication D, third edition (Canberra: Department of Defence, 2012), http://www.defence.gov.au/adfwc/Documents/DoctrineLibrary/ ADDP/ADDP-D-FoundationsofAustralianMilitaryDoctrine.pdf.
- 21. NATO Standardization Agency, *NATO Glossary of Terms and Definitions English and French* (Brussels: NATO Standardization Agency, 2013), 2-H-1, http://nsa.nato.int/nsa/zPublic/ap/aap6/AAP-6.pdf.
- 22. Ibid., 2-S-14.
- 23. Department of Defence (Australia), Australian Defence Doctrine, 6–2.
- Department of National Defence, Canadian Forces Joint Doctrine Manual: Psychological Operations (Kingston: Department of National Defence, 2004), 5–8, http:// www.psywar.org/psywar/reproductions/CF_Psychological_Operations_Joint_ Doctrine.pdf.

- 25. Ibid., 1-2.
- Ministry of Defence, British Defence Doctrine, Joint Defence Publication 0-01 (London: Ministry of Defence, 2011), 2–4, https://www.gov.uk/government/uploads/ system/uploads/attachment_data/file/33697/20111130jdp001_bdd_Ed4.pdf.
- 27. Ibid., 4-7.
- 28. Ibid., 2-4.
- 29. Ibid., 4-7.
- 30. Ibid., 4-9.
- Bernd Horn and Daniel Lagacé-Roy, "Morale," in *The Military Leadership Handbook*, eds. Bernd Horn and Robert W. Walker (Kingston: Canadian Defence Academy Press and Dundurn Press, 2008), 402.
- 32. Ibid., 410.
- 33. Canadian Forces Leadership Institute, *Leadership in the Canadian Forces: Conceptual Foundations*, Publication A-PA-005-000/AP-004 (Kingston: Canadian Defence Academy Canadian Forces Leadership Institute, 2005), 48.
- 34. Ibid., 55.
- Canadian Forces Leadership Institute, Leadership in the Canadian Forces: Doctrine, Publication A-PA-005-000/AP-003 (Kingston: Canadian Defence Academy – Canadian Forces Leadership Institute, 2005), 22.
- 36. Chief of Military Personnel, "Lines of Operation," Military Personnel Command Defence Wide Area Network Site. http://cmp-cpm.forces.mil.ca/index-eng.asp
- Chief of Military Personnel, "Canadian Forces Manual of Military Employment Structure 2-1: Job Based Specifications for the Chaplain," Military Personnel Command Defence Wide Area Network Site, http://cmp-cpm.forces.mil.ca/ dgmp/dpgr/downloads/specifications/english/OS_E_CHAPLAIN_00349.doc
- 38. Chief of Military Personnel, "Directorate of History and Heritage Music," Military Personnel Command Defence Wide Area Network Site, http://cmp-cpm.forces.mil.ca/dhh-dhp/musi/index-eng.asp
- 39. Department of Defense (U.S.), Department of Defense Dictionary of Military and Associated Terms, Joint Publication 1-02 (Washington: Department of Defense, 2010; amended 2013), 186, http://www.dtic.mil/doctrine/new_pubs/jp1_02.pdf
- 40. Britt and Dickinson, "Morale During Military Operations," 162.
- My thanks to Major Renata Godlewski, Major Jean Bernard, Captain Eric Ouellet, and those senior NCOs and WOs who took the time to share their views with me.
- 42. My thanks to Naoko Hawkins for her assistance. Naoko Hawkins, Thematic Analysis of Qualitative Text – Recommendations for the Interpretation of Human Dimensions

- of Operations Survey and Unit Morale Profile Survey Data, Defence Research and Development Canada Technical Note 2013-001 (Ottawa: Defence Research and Development Canada, 2012).
- 43. Anonymous Chief Petty Officer 2nd Class, Royal Canadian Navy.
- 44. Anonymous Chief Warrant Officer, Canadian Army.
- 45. Anonymous Chief Petty Officer 1st Class, Royal Canadian Navy.
- 46. Anonymous Master Warrant Officer, Royal Canadian Air Force.
- 47. Anonymous Master Warrant Officer, Canadian Army.
- 48. Anonymous Chief Petty Officer 2nd Class, Royal Canadian Navy.
- 49. Anonymous Master Warrant Officer, Canadian Army.
- 50. Anonymous Master Warrant Officer, Royal Canadian Air Force.
- 51. Anonymous Petty Officer 1st Class, Royal Canadian Navy.
- 52. Anonymous Sergeant, Canadian Army.
- 53. Anonymous Chief Warrant Officer, Canadian Army.
- 54. Anonymous Chief Petty Officer 1st Class, Royal Canadian Navy.
- 55. Anonymous Master Warrant Officer, Royal Canadian Air Force.
- 56. Anonymous Master Warrant Officer, Canadian Army.
- 57. Anonymous Petty Officer 1st Class, Royal Canadian Navy.
- 58. Anonymous Warrant Officer, Canadian Army.
- 59. Anonymous Sergeant, Canadian Army.
- 60. Anonymous Petty Officer 2nd Class, Royal Canadian Navy.
- 61. Anonymous Chief Warrant Officer, Royal Canadian Air Force.
- Department of National Defence, Canadian Forces Joint Doctrine Manual: Psychological Operations, 5–8.
- C. James Goodwin, Research in Psychology Methods and Designs, fourth edition (New Jersey: John Wiley & Sons Inc., 2005), 116.
- 64. Ibid., 118.
- 65. Peter J. Murphy, Kelly M. J. Farley, and Tzvetanka Dobreva-Martinova, "A Conceptual Approach to the Study of Stress in Peacekeeping Personnel," paper presented at the NATO Research & Technology Organization Aerospace Medical Panel Symposium, Rotterdam, The Netherlands, October, 1997.
- 66. Officers comprising the Personnel Selection (PSel) Branch, Personnel Selection Officers (PSOs) "provide behavioural science services to enable the [CAF] to

- effectively assess, acquire, integrate, and maintain personnel for operational and support roles." Their primary tasks "require the application of professional behavioural science knowledge and procedures in the assessment of people and human factors that affect working relationships" (Canadian Armed Forces, http://www.forces.ca/en/job/personnelselectionofficer-66#info-1).
- 67. William Wild, *Proposal for Studying the Human Dimensions of Combat Readiness*, Canadian Forces Personnel Applied Research Unit Note 5/88 (Willowdale: Defence Research and Development Canada, 1988).
- 68. Refer to Chapter 2 of this publication for more information on operational stress.
- 69. Refer to Chapter 9 of this publication for more information on post-deployment reintegration.
- 70. Refer to Chapter 5 of this publication for further information on battlefield ethics.
- Refer to Chapter 4 of this publication for further information on conduct after capture training.
- 72. Refer to Chapter 7 of this publication for further information on trust.
- 73. Tzvetanka Dobreva-Martinova, *Human Dimensions of Operations Project: An Overview*, Directorate of Human Resources Research and Evaluation Sponsor Research Report (Ottawa: Defence Research and Development Canada, 1999).
- 74. Inez Dekker and Gary Ivey, The Evolution of the Unit Morale Profile as an Organizational Consulting Tool in the Canadian Forces, Director General Military Personnel Research and Analysis Technical Memorandum 2012-019 (Ottawa: Defence Research and Development Canada, 2012).
- 75. Britt and Dickinson, "Morale During Military Operations," 162.
- 76. NATO, "A Leader's Guide to Psychological Support Across the Deployment Cycle," in *Stress and Psychological Support in Modern Military Operations* (Brussels: NATO Research and Technology Organization, 2005), G-32.
- 77. Adapted from Britt and Dickinson, "Morale During Military Operations," 164.
- 78. Thomas W. Britt, Amy B. Adler, Paul D. Bliese, and DeWayne Moore, "Morale as Moderator of the Combat Exposure-PTSD Symptom Relationship," *Journal of Traumatic Stress* 26, no. 1 (February 2013): 94–101.
- 79. Britt and Dickinson, "Morale During Military Operations," 160.
- Department of National Defence, Department of National Defence and Canadian Forces
 Code of Values and Ethics, http://www.dep.forces.gc.ca/dep-ped/code/code-eng.
 aspx. Canadian Forces Leadership Institute, Duty with Honour: The Profession of Arms
 in Canada (Kingston: Canadian Defence Academy Press, 2003).
- Abraham H. Maslow, "A Theory of Human Motivation," Psychological Review 50, no. 4 (1943): 370–96.

- 82. Bernard Fergusson, The Wild Green Earth (London: Cassell, 1946), 99.
- 83. Gwynne Dyer, War (New York: Crown Publishers, 1985), 47.
- 84. Marshall, Men Against Fire, 159.
- 85. Operation ATTENTION is Canada's participation in the NATO Training Mission-Afghanistan, which delivers training and professional development support to the national security forces of Afghanistan (Canadian Joint Operations Command, http://www.cjoc-coic.forces.gc.ca/exp/attention/index-eng.asp).
- 86. Todd M. Mitton, "New Considerations in Morale for Canadian Operational Commanders," *The Canadian Army Journal* 10, no. 3 (2007): 27–43.
- 87. Canadian Forces Leadership Institute, Leadership in the Canadian Forces: Doctrine.
- 88. Britt and Dickinson, "Morale During Military Operations," 159.

CHAPTER 2:

OPERATIONAL STRESS: THE CANADIAN ARMED FORCES EXPERIENCE

Sébastien Blanc and E. Kevin Kelloway

A fundamental condition of military service is the doctrine of unlimited liability, which means that soldiers can be ordered to put themselves in harm's way, running the risk of both physical and psychological injury. These risks are typically higher in combat operations. But some peacekeeping deployments have turned out to be equally dangerous. For example, a survey of hundreds of Canadian soldiers who served in the former Yugoslavia in the early 1990s revealed that about 70% of them had come under direct fire, and about 50% had witnessed someone being killed (i.e., a colleague or a civilian). Comparable experiences were reported by U.S. soldiers deployed in Somalia. These results signalled the beginning of a transformation in the nature of peacekeeping deployments: the emphasis changed from peacekeeping to peacemaking.

The change from peacekeeping to peacemaking coincided with the end of the Cold War. Traditional Chapter VI missions⁶ gave way to peacemaking missions in civilian-fought warfare. Peacekeepers' new tasks included promoting reconciliation, providing humanitarian assistance, and the reconstruction of infrastructure in "failed states," where the government, the police and the judicial system had collapsed. The new demands took their toll on soldiers. Researchers began to recognize "peacekeeping stress," which spawned a renewed interest in operational stress and its aftermath on both operational performance and individual well-being.⁸

In 1995, the Canadian Armed Forces recognized the importance of investigating the causes and consequences of "peacekeeping stress." The result was a multi-year study that became known as the Human Dimensions of Operations Project.⁹ The CAF came to believe that peacekeeping and conventional warfare could be equally challenging for soldiers, ¹⁰ but that the experience of Canadian peacekeepers had not been extensively studied.¹¹ At the time, studies of operational stress were largely based on two sources: the U.S. experience in World War II, Vietnam and the Gulf War, ¹² and the Israeli experience in its wars with

Egypt and Lebanon.¹³ These studies were informative, but the Canadian peacekeeping operations of the mid-1990s were a different context. The cultural differences between Israel and Canada also made generalizing their findings to Canadian soldiers questionable.

The HDO Project allowed the CAF to document and analyse the unique experience of its members across all missions. In fact, the CAF have conducted HDO research in Bosnia, Kosovo, Haiti, Eritrea and more recently Afghanistan. However, most HDO results have been published internally (as opposed to being published in the academic press). As a result, the operational stress literature is still heavily influenced by the U.S. Even after sixteen years of HDO research, little is known about the subjective deployment experiences of Canadian service members outside the circle of researchers working within the HDO Project.

The purpose of this chapter is to shed light on the research we have been conducting inside the HDO Project, with a particular focus on operational stress. We begin by defining the key terms – stressors, stress, and strain – and the theoretical framework for the HDO Project. Second, we discuss what we have learned about operational stress in the CAF over the years. Third, we compare our findings with other studies in the area of operational stress, discuss their limitations, and provide suggestions for future operational stress research.

OPERATIONAL STRESS

We distinguish between stressors, stress and strain¹⁴ when we examine how individuals are affected by their environment. A *stressor* is generally thought of as an event or condition that occurs outside the individual and that he/she perceives as a demand or a threat (e.g., being attacked or ambushed). *Stress* denotes the array of physiological reactions arising from that perception (e.g., elevated heart rate). We make a distinction between *stressors* and *stress* because the same improvised explosive device explosion, for example, can affect two different individuals in two different ways. *Strain* refers to the outcomes (or effects) associated with exposure to intense or prolonged stress (e.g., mental health problems such as post-traumatic stress

disorder). In other words, strain is a measurement of the cumulative effect of the stressors that cause stress (e.g., sniper fire) on the soldiers deployed in a particular theatre of operations.

Stressors

What we know about operational stress has been collected from virtually every armed conflict in the twentieth century.¹⁵ Generally speaking, exposure to the stressors inherent in combat and peacekeeping has detrimental effects¹⁶ on individual well-being in a number of ways. Operational stress can also contribute to mental health problems (e.g., PTSD), alcohol and drug abuse, and other harmful behaviours, such as smoking and risky driving.

Early research on operational stress focused on soldiers' exposure to the acute and traumatic stressors associated with combat. An *acute stressor* is a relatively infrequent but intense event that takes place within a relatively short period of time.¹⁷ When the event results in the loss of life, it can also be called a catastrophic or traumatic stressor.¹⁸ Being exposed to live fire, killing and witnessing personnel being injured or killed are all examples of acute and traumatic stressors. Both the intensity of such events and the number of them an individual is exposed to has been related to PTSD symptoms (e.g., nightmares, flashbacks, difficulty sleeping, and social isolation).¹⁹

In the mid-nineties, Lamerson and Kelloway developed a model of peacekeeping stress that incorporated both acute and chronic stressors.²⁰ Unlike acute stressors, chronic stressors are not particular events that have a distinct start and end point. Chronic stressors have a relatively constant presence that is typically lower in intensity. Dealing with an uncooperative and even hostile local population, unclear rules of engagement and separation from family are all examples of chronic stressors that affect individual peacekeepers' well-being.²¹ Moreover, the effects of chronic stressors may interact with traumatic stressors thereby exacerbating their effects on well-being.

Stress

Virtually all peacekeepers are exposed to traumatic and chronic stressors. However, not all soldiers will suffer impaired well-being.²² The extent of impairment may depend on the individual's reaction or appraisal of the event.²³ The important role of an individual's assessment or appraisal of an event is consistent with the broader literature on traumatisation.²⁴ The link between stressors and stress varies considerably from individual to individual. It depends on numerous factors, including whether a person appraises an event as a threat or as a challenge.²⁵ The Job Demands-Resource Theory²⁶ argues that external events are seen as either job demands or job resources. Job demands are any aspect of the environment that requires extended physical or psychological effort on the part of the individual, and which are associated with certain physical and/or psychological costs. Job demands are perceived as stressful and result in negative personal outcomes. On the other hand, job resources are aspects of the environment that assist individuals with their work, reduce demands, and promote personal growth and development.²⁷ Thus, job demands result in health impairment,²⁸ while job resources increase positive outcomes.²⁹

Strain

Prolonged or intense exposure to stress can adversely affect individuals, and those effects are generically referred to as *strain outcomes*. Strain outcomes usually comprise four interrelated categories: psychological, physical, behavioural and organizational.³⁰ These categories are not separable from one another. Depression, for example, is a psychological outcome, but it has been linked to coronary heart disease, a physical outcome.³¹ Depression has also been linked with smoking and alcohol consumption, which are behavioural outcomes.³² It has also been linked to absenteeism and loss of productivity, which are organizational outcomes.³³

Strain can affect peacekeepers' well-being and operational effectiveness. The more researched of these two outcomes, by far, is the effect of peacekeeping on individual well-being.³⁴ For instance, exposure to traumatic stressors has been associated with feelings of fear and helplessness.³⁵ In

some cases, these feelings lead to psychiatric symptoms and disorders.³⁶ The most common symptoms reported by peacekeepers are feelings of exhaustion, cynicism and detachment associated with burnout. They also report extreme anger, mood swings and feelings of depression.³⁷ Not surprisingly, plenty of research has shown an increase in symptoms and incidence of PTSD among soldiers exposed to traumatic stressors.³⁸ Moreover, the experience of PTSD symptoms is said to increase with both the frequency and intensity of exposure to the traumatic stressor.³⁹

Much less research has examined the effects of traumatic stress on organizational outcomes. Nonetheless, some data suggests that stress experienced in theatre interferes with peacekeepers' job performance. One would also expect that attitudes toward the organization (e.g., commitment, intention to stay) would decline as a result of exposure to traumatic stressors. Hut these effects have not been fully explored within the context of peacekeeping missions.

Buffers

Not every individual who experiences stress will suffer adverse effects from it. A number of intervening variables – called *buffers*⁴² – influence (a) whether an individual sees a particular stressor as a demand and (b) whether the stress he/she experiences results in strain outcomes. Research suggests that intervening variables, like social support (i.e., leadership and group/unit cohesion),⁴³ active coping, personal characteristics and individual differences are all associated with psychological adjustment.⁴⁴ Inness and Barling point out that the extent to which military organizations can influence these potential buffers remains to be determined.⁴⁵

THE OPERATIONAL EFFECTIVENESS AND STRESS MODEL

The four concepts presented in the last section – stressors, stress, strain, and buffers – have been incorporated into the Operational Effectiveness and Stress Model, which is presented in Figure 2.1.⁴⁶ Most research on operational stress in the CAF is based on this model, and it is fair to say that the model reflects our understanding of the stress process: external

events (stressors) give rise to individual appraisals (stress), which eventually result in strain outcomes.⁴⁷

The first component in the model in Figure 2.1 is called *stressors*. As we mentioned earlier, stressors can be any event, demand or condition that threatens one's well-being or unit effectiveness. The component includes both acute stressors (e.g., coming under live fire) and chronic stressors (e.g., separation from family). ⁴⁸ The stressors component of the model also recognizes the important difference between traumatic and non-traumatic stressors. Traumatic stressors are known to have chronic, long-term effects on mental health. Non-traumatic stressors, on the other hand, can impair well-being and performance during deployment, but they do not tend to affect well-being in the long run. ⁴⁹

The second component of the model is called *appraisal*. The term refers to a soldier's evaluation of an operational stressor. A soldier can evaluate a stressor as a threat or as a challenge. How the soldier evaluates the stressor will determine which coping mechanism he/she adopts in response to it.⁵⁰ The mental process that takes place between the stressor, the appraisal, and the coping mechanism is assumed to be influenced by contextual factors (e.g., prevailing group norms) and personal factors (e.g., personality traits).

The third component of this model is labelled *outcomes*. This component incorporates the anticipated consequences of any chronic or severe misalignment between the demands of the environment and one's ability to cope with those demands. In addition to traditional health outcomes, the framework includes several additional consequences of stress, such as changes in organizational commitment, and reduced morale and performance.⁵¹

The fourth component, labelled *buffers*, includes the (support) resources that can potentially alter a soldier's perception of stressors or prevent a soldier from suffering the adverse effects of stress. Examples of such resources include effective leadership, small group cohesion and reintegration support programs.

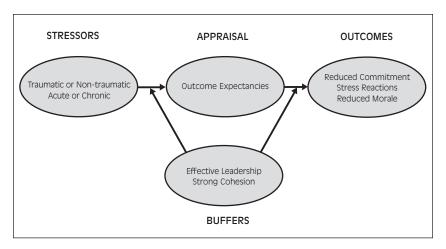


FIGURE 2.1: OPERATIONAL EFFECTIVENESS AND STRESS $MODEL^{52}$

KEY FINDINGS ON OPERATIONAL STRESS

CAF data show some support for this conceptual model. For example, using survey responses from 2,012 soldiers serving in Bosnia from the period 1999 to 2001, Farley and Veitch showed that peacekeeping stress can negatively affect soldiers' well-being.⁵³ At the same time, they showed that confidence in leadership can shield soldiers from the adverse effects of stress by raising morale and triggering the use of positive coping strategies, such as seeking advice prior to making a decision. More recent work has provided additional support for the model. This research shows that whether or not a stressful event leads to psychological distress depends on one's appraisal of that event – that is, whether the individual perceives the stressor as a source of trouble or concern.⁵⁴ Empirical evidence therefore supports the view that whether or not a stressful event leads to adverse outcomes depends on (a) one's appraisal of that stressor, (b) the kind of coping resources one adopts, and (c) the availability of (support) resources that can either influence the appraisal process, prevent soldiers from experiencing the adverse effects of stress, or help them recover (e.g., clinical care).

PEACEKEEPING STRESS

In 1994, Farley conducted a series of focus groups with personnel deployed in Bosnia. The aim of his research was to identify the most prevalent stressors in the context of peace support operations. The information he collected was used to develop the Stress in Military Service (SMS) questionnaire, which later became a core component of most HDO surveys. The SMS assesses⁵⁵ the degree to which issues, situations, and threats (i.e., career issues, work environment, family concerns, living conditions, and combat stressors) are causing trouble or concern for personnel preparing for, involved in, or returning from an overseas deployment.

Figure 2.2 presents results from over 13,000 Canadian soldiers involved in either Operation PALLADIUM or Operation ATHENA Phase I.⁵⁶ As the figure shows, soldiers' concerns with the stressor categories measured by the SMS questionnaire are minimal, and they do not fluctuate much over the deployment cycle. Career Issues (e.g., conditions of service such as pay and allowances, the quality of personal clothing and equipment, and administrative support) are typically identified as the main sources of operational stress at all stages. Issues related to the work environment (e.g., double standards in the applications of rules and the attribution of privileges, supervisors overreacting to situations), living conditions, and separation from family also affected personnel, but to a lesser extent. It should be noted, however, that this graph presents average results only. Accordingly, one should not look at this graph and conclude that "everyone is fine." A more nuanced and realistic interpretation of the results is that most people are fine, some are struggling, and a few are in serious need of help.

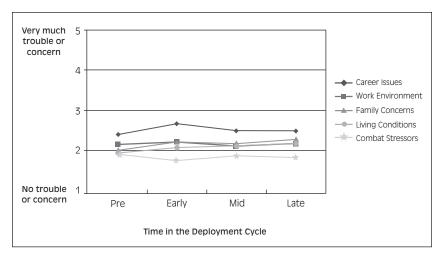


FIGURE 2.2: MAIN STRESSORS FOR SOLDIERS INVOLVED IN PEACEKEEPING AND STABILITY OPERATIONS 57

These findings are consistent across CAF studies on peacekeeping and stability operations.⁵⁸ But it is important to acknowledge that separation from family and the inability to deal with the problems occurring back home can sometimes be an issue. In fact, one study showed that family separation was a source of stress for 90% of peacekeepers.⁵⁹ In a more recent study,⁶⁰ it was also found that pre-deployment family concerns were the main source of CAF personnel's ill-being⁶¹ while approaching their departure to a peacekeeping mission. Given the link between family concerns and soldier well-being, attending to the needs of military families remains important.⁶²

Fortunately, research over the past 16 years on operational stress shows that CAF peacekeepers have typically experienced relatively low levels of stress, at least for personnel who were involved in relatively stable, low intensity operations. Of course, this does not imply that all peacekeeping and stability operations have been uneventful for soldiers. In fact, many Canadian soldiers have reported symptoms of PTSD as a result of their peacekeeping experiences. Vet data collected from over 13,000 Canadian soldiers involved in either Operation PALLADIUM or Operation ATHENA Phase I clearly demonstrates that soldiers' average stress level is low and that symptom intensity does not vary immensely across the deployment cycle.

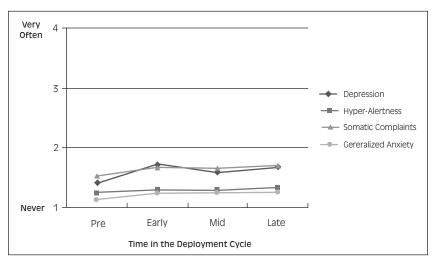


FIGURE 2.3: SIGNS OF STRESS EXPERIENCED BY CANADIAN SOLDIERS INVOLVED IN PEACEKEEPING OR STABILITY OPERATIONS 66

Nevertheless, Figure 2.3 shows that symptoms of depression and somatic complaints commonly increase slightly after arrival in theatre. Symptoms of hyper-alertness also tend to be slightly higher in the last six weeks prior to the end of deployment. There has also been a reported tendency for physiological strain (e.g., bodily symptoms of stress) to increase with operational experience, suggesting a possible cumulative effect of stress on peacekeepers.⁶⁷

THE STRESS OF COUNTER-INSURGENCY OPERATIONS

The preceding findings strongly suggest that a majority of CAF members have adjusted well to the demands of lower intensity operations, such as peacekeeping. But recent data from an adaptation of the Kessler Psychological Distress scale (K-10)⁶⁸ paints a much less positive picture of the psychological impact of counter-insurgency operations. A study involving 1,875 CAF members preparing for a six to seven month deployment on Operation ATHENA Phase II (Figure 2.4) in southern Afghanistan revealed that 51% of respondents obtained K-10 scores indicative of medium or high levels of psychological distress.⁶⁹ This proportion was even greater among soldiers who were involved in (57%) or had returned from deployment (also 57%).⁷⁰

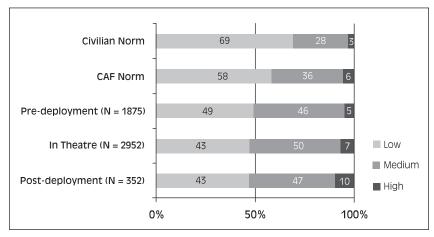


FIGURE 2.4: RISK FOR ANXIETY AND DEPRESSION⁷¹

Unexpectedly, even though a meaningful level of distress across CAF groups is apparent, the fraction with distress does not tend to vary

dramatically over the deployment cycle. We can see this when we compare data from deployed personnel with data from the other groups represented in Figure 2.4. Together, these findings show that

There is always an important minority of people with problems, no matter where and when. A leader's job is to find these people, support them, and get them help if needed.

there is always an important minority of people with problems, no matter where and when. A leader's job is to find these people, support them, and get them help if needed.

It is important to observe – and this is contrary to popular belief – that those

who most need help are not necessarily within manoeuvre units or deployed "outside the wire." Combat and support personnel seem to have an equal risk of being adversely affected by operational stress.⁷² Hence, it is not the level of combat

It is not the level of combat exposure itself that leads to psychological distress. Whether a stressful event leads to psychological distress depends on the impact the event has on the individual.

exposure itself that leads to psychological distress. Whether a stressful event leads to psychological distress depends on the impact the event has on the individual.⁷³ In other words, "two individuals may experience the same stressor, but the impact of that event may differ between the two;

while one individual may 'bounce back' to an operationally effective level, the other may require medical support."⁷⁴

The high prevalence of stress symptoms among members of Operation ATHENA Phase II can be explained, in part, by the increased risks and unique stressors associated with this kind of operation. Table 2.1 presents the five most prevalent combat stressors for CAF personnel deployed in (southern) Afghanistan between 2007 and 2009. Results are based on nearly 3,000 responses to an adapted version of the Soldier and Marine Well-Being Survey,⁷⁵ which assesses personnel's level of combat exposure in comparison to that of U.S. soldiers serving on Operation Enduring Freedom.

	Percentage		
Combat Experiences	HDO 2007- 2009 ⁷⁶	MHAT V 2007	MHAT VI (Manoeuvre) 2009 ⁷⁷
Knowing someone seriously injured or killed.	68.8%	71.8%	57.1%
Receiving incoming artillery, rocket or mortar fire.	64.7%	78.3%	56.9%
Seeing destroyed homes and villages.	53.8%	62.7%	64.1%
Working in areas that were mined or had IEDs.	49.1%	63.1%	76%
Being attacked or ambushed.	44.2%	50.7%	34%
Note. MHAT: Mental Health Advisory Team			

TABLE 2.1: EXPOSURE TO VARIOUS COMBAT STRESSORS: THE EXPERIENCE OF CAF MEMBERS VS. U.S. SOLDIERS

About two thirds of surveyed personnel have received indirect fire or have known someone who was seriously injured or killed during their deployment. In addition, nearly half of respondents have seen destroyed homes and villages, or have worked in areas that were mined or contained improvised explosive devices (IEDs). Being attacked or ambushed was reported less frequently than the other stressors. But it is worth noting that nearly half of respondents have experienced these kinds of situations on at least one occasion during their six- to seven-month deployment. A comparison between U.S. and Canadian results for the same period reveals no exceptionally large differences in levels of combat exposure.

COPING STYLE AND (SUPPORT) RESOURCES

The way soldiers respond to deployment stress can also be attributed, in part, to individual differences in their coping styles. Variations in the climate within their unit through each phase of the deployment cycle can also have an effect. Research has shown that soldiers who report using positive coping techniques, such as seeking social support to solve their problems directly, tend to fare better than soldiers who report using negative coping techniques (e.g., avoidance and alcohol consumption). Fortunately, the majority of soldiers involved in low intensity operations, such as peacekeeping, have reported resorting more frequently to positive than to negative coping strategies when dealing with stress. It is regrettable, however, that some of the main sources of unit support (i.e., leadership as well as task and social cohesion) tend to decline slightly over the course of a deployment (see Figure 2.5). This slight decline is most notable in the post-deployment stage, when an abrupt return to normal roles and activities can be a significant stressor on its own.

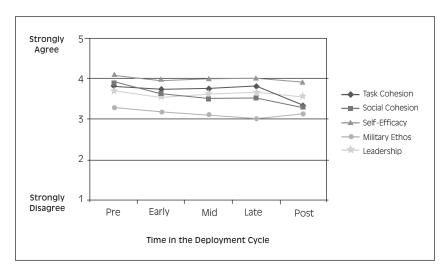


FIGURE 2.5: VARIATIONS IN UNIT CLIMATE DIMENSIONS THAT CAN BUFFER SOLDIERS FROM THE ADVERSE EFFECTS OF DEPLOYMENT STRESS 82

Data from the Homecoming Issues scale on the HDO Post-deployment Questionnaire⁸³ has shown that many soldiers returning from a

peacekeeping deployment have experienced difficulties readjusting to their family, work and usual selves. For instance, data from 202 service members returning from Bosnia revealed that 50% of the sample experienced marital or relationship problems following their return; and of that number, 20% ended in divorce or separation. A later study of 1,256 respondents revealed that the adverse effects on children and spouses were among the most frequent reasons for CAF personnel not wanting to redeploy. As one soldier put it, Never again will I do another tour. The personal cost has been too great. I have found that the cumulative effect of the tour has been detrimental to both myself and family. I find myself resenting the army. Something I've never felt before."

In light of these results, it is not entirely surprising that the symptoms of stress experienced by personnel returning from deployment have often exceeded the signs of stress reported before and during deployment.⁸⁷ Another reason for the increase in post-deployment stress among peacekeepers might be the lack of organizational support experienced by many returning CAF members. For instance, one study has shown that the CAF of the 1990s were seen as unsupportive by about 40% of the sample.⁸⁸ But we have to be cautious about laying all the blame on the CAF personnel support system because a later study of organizational support by Pickering was inconsistent with past research.⁸⁹ Pickering found no meaningful association between perceived organizational support and post-deployment symptoms reported by CAF members.⁹⁰ In all the analyses that have been performed, the effects of occupational stress overshadowed the influence of CAF support.

Fortunately, today's veterans (and those who are still serving) have access to a much broader range of support programs than the peacekeepers of the 1990s. Examples include post-deployment mental health screening, Operational Trauma Stress Support Clinics, Operational Stress Injury Support, mental health training, the CAF Member Assistance Program, improved confidentiality protection, and better career protection. Moreover, when today's soldiers return from deployment, they typically witness multiple manifestations of public support, such as civilians displaying yellow ribbons or wearing red t-shirts to demonstrate support. Considering those

formal and informal manifestations of support, it is not entirely surprising that today's veterans – including peacekeepers – report more positive than negative reintegration experiences.91

Those few soldiers who experience greater reintegration difficulties – and invariably greater stress - tend to also report higher levels of negative job-related feelings and greater intentions to leave the military. 92 Research on the outcomes

Today's veterans — including peacekeepers - report more positive than negative reintegration experiences.

of post-deployment reintegration has demonstrated that a reduction in "negative feelings towards work" can buffer (or attenuate) the relationship between psychological symptoms of strain and turnover intentions.⁹³ This can be achieved, in part, by reducing military bureaucracy, assigning more meaningful and challenging tasks to subordinates, and more generally, by making garrison life more exciting.94

Instituting a formal decompression and stress mitigation program may be another way to ease CAF members' post-deployment readjustment and to reduce turnover intentions and other negative health outcomes. This kind of program involves flying soldiers to a safe, clean and restful location to attend educational sessions aimed at easing their transition to normal life in Canada. Such programs can be expensive to implement and their usefulness has not been conclusively shown. Nonetheless, two studies about the effectiveness of these programs are worth noting. The first evaluated the satisfaction of over three thousand service members who had participated in a 5-day Third Location Decompression (TLD) program in Cyprus. The vast majority agreed that some form of decompression was a good idea (95%), that the program was valuable for them (81%), and that they recommended it for future deployments to Afghanistan (83%).95 The authors of the second study used a sample of 490 service members returning from deployment in Afghanistan. Their aim was to test a model of reintegration experiences that focused on affective organizational commitment, support factors, PTSD symptoms, changes in alcohol use and turnover intentions. In sum, they found that the degree to which personnel perceived the formal reintegration support program (i.e., the TLD in Cyprus) to be beneficial was positively associated with their

emotional attachment to the CAF. This was in turn associated⁹⁶ with lower levels of PTSD symptoms, alcohol use and turnover intentions.⁹⁷

DISCUSSION

Key Findings

The goal of this chapter was to raise awareness of what the Canadian military has learned about the deployment-related experience of its

Chronic and relatively more everyday stressors (e.g., career issues and separation from family) seem to be of greater concern to many peacekeepers than battlefield stressors.

personnel by presenting key findings on operational stress. The first finding that deserves to be noted is that chronic and relatively more everyday stressors (e.g., career issues and separation from

family) seem to be of greater concern to many peacekeepers than battlefield stressors. This finding is important for three reasons. From a practical perspective, first, it highlights the importance of attending to those stressors as they may pose a cumulative burden on coping, well-being, and mental health. Second, leaders do have some control over these factors. To be sure, they cannot prevent exposure to traumatic events while deployed. But they can certainly be fair to their personnel, recognize excellence, forgive failures, and give them the tools they need to do their jobs. Third, and from a scientific perspective, this finding extends the operational stress

Soldiers serving in stable and relatively wellestablished theatres of operation (e.g., Bosnia in the late 1990s and Kabul in 2005) have not, on the whole, suffered from severe stress symptoms. literature in an important way. It paints a much less dramatic picture of peacekeeping service than many other studies based on samples of personnel who worked in some of

the most volatile and violent environments, such as Somalia.99

The second finding worth mentioning is that soldiers serving in stable and relatively well-established theatres of operation (e.g., Bosnia in the late 1990s and Kabul in 2005) have not, on the whole, suffered from severe stress symptoms. This finding is consistent with British, ¹⁰⁰ Swedish, ¹⁰¹ and U.S. studies ¹⁰² conducted in similar environments. However, there is (as in all such cases) an important minority of soldiers who have struggled

and are struggling. The inability to identify these individuals through risk factors alone (e.g., combat exposure) means that leaders may need to assess them on an individual basis.

A third set of findings is worthy of note. A relatively large proportion (57%) of CAF members reported moderate to high levels of psychological distress following their deployment in a combat-oriented mission. Moreover,

there was an absence of a statistically significant difference between the level of stress reported in manoeuvre units and the one reported by members of

Well-being (support) resources should be distributed equally across units and locations so that no one group is overlooked.

support/sustainment units. These findings reaffirm the results outlined in the Mental Health Advisory Team Report on U.S. soldiers involved in Operation Enduring Freedom.¹⁰³ These results suggest that well-being (support) resources should be distributed equally across units and locations so that no one group is overlooked.¹⁰⁴

Finally, data from Canadian samples supports the view that the readjustment phase can be particularly stressful for soldiers. This phase

is often characterized by an increase in stress symptoms¹⁰⁵ and a decrease in the main sources of unit support.¹⁰⁶ Granted, Pickering has found no meaningful association between post-deployment social support and symptoms of stress

Transitional support programs, such as the Third Location Decompression, can be beneficial. Benefits can include reduced symptoms of stress, lower levels of alcohol use, and fewer turnover intentions.

among peacekeepers.¹⁰⁷ But there is plenty of evidence suggesting the contrary.¹⁰⁸ Some preliminary evidence suggests, moreover, that transitional support programs, such as the Third Location Decompression, can be beneficial. Benefits can include reduced symptoms of stress, lower levels of alcohol use, and fewer turnover intentions.¹⁰⁹

Limitations

Notwithstanding the intuitive appeal of the findings presented in this chapter, several limitations must be acknowledged. First, all study variables were typically measured at the same point in time (i.e., they

are cross-sectional, as opposed to longitudinal). This limitation prevents researchers from drawing causal inferences from the data. Second, all data has been collected through self-selected participants, mostly members of formed operational units from the force-generating base. This limits the generalizability of survey findings to the broader CAF population. It is entirely possible that the soldiers who chose to participate in HDO studies differed in some ways from those who chose not to (e.g., they might have been more or less affected by operational stress). Third, the measures used to assess soldiers' experiences have changed over time. For instance, the Stress in Military Service questionnaire has been replaced by the K-10. As a result, it is difficult to compare the experience of peacekeeping veterans with the experience of Afghanistan veterans. Fourth, the cut-off scores that were used to determine the proportion of soldiers in the low-, moderate-, and high-risk categories for anxiety and depression have not yet been validated with a CAF population. As a result, one cannot be certain that high scorers will experience the same outcomes as the whole (i.e., the normative) population. Finally, because surveys are generally completed by a large number of soldiers, researchers have often interpreted small (and sometimes trivial) effects (e.g., correlations or mean group differences) as being meaningful when in fact these variations may have been amplified. 110

Future Research

In retrospect, most of the CAF-based research conducted to date has been focused on describing reality (i.e., factual) as opposed to normative (i.e., focused on hypothesis testing to help change or improve reality). Research has also been directed at the environmental buffers (e.g., social support) as opposed to the personal traits (e.g., hardiness) that lead to good performance and adaptation. Third, research has focused on finding strategies to reduce symptoms of stress as opposed to fostering well-being (i.e., positive psychology). Accordingly, three complementary avenues for future research on operational stress are discussed below.

The first avenue is to place greater emphasis on normative research. The goal of normative research is to identify variables or strategies (e.g., resilience training)¹¹¹ that can shield soldiers from the adverse effects of

stress or contribute greatly to their recovery from it.¹¹² One of the best Canadian normative studies conducted to date was that of Currie, Day, and Kelloway.¹¹³ The primary goal was to test the validity of a structural model which postulated that formal and informal support following deployment can indirectly reduce symptoms of PTSD, alcohol intake and turnover intentions.

A second avenue for future research involves a more positive or adaptive perspective on stress. The aim is to study the personality variables that lead to good performance and adjustment. This kind of research would help inform personnel selection and screening policies while directly contributing to the scientific community. Indeed, in the conclusion of their book on military performance, Britt, Castro and Adler called for more research on the personality variables that lead to good performance in various types of military operations.¹¹⁴

Finally, and arguably the most promising avenue for future research is to reorient the HDO Project back to its original mission, which was to study the psychological determinants of operational performance. Up to now, most of its research has been influenced by the so-called disease model of human functioning, where well-being is conceptualized as the absence of distress symptoms. This almost exclusive attention to stress and strain has resulted in a research program that lacks the positive determinants of essential military outcomes. In other words, it has focused less on mission success, member well-being and commitment, external adaptability, internal integration, and military honour and ethos. The

CONCLUDING REMARKS

The results presented in this chapter are just the tip of the iceberg. The last 16 years of HDO-related research has resulted in over 75 publications about the human dimensions of operations. These results have generated great interest at all levels in the Army chain of command, and most recently at the most senior levels in the Department of National Defence. Today, the HDO Survey is viewed by the Army as a cutting-edge assessment tool, which enhances the capability of Canadian Army commanders

and the Chief of Military Personnel to monitor operational and strategic implications of the human dimensions of operations. It provides an unprecedented predictive and preventive capability to intervene in areas of operational stress and post-deployment readjustment, and on a broader scale, to validate the efficacy of CAF personnel and retention policies.¹¹⁷

ENDNOTES

- Canadian Forces Leadership Institute. Duty with Honour: The Profession of Arms in Canada (Kingston: Canadian Defence Academy Press, 2003).
- R. L. Campise, S. Y. Geller, and M. E. Campise, "Combat Stress," in *Military Psychology: Clinical and Operational Applications*, eds. C. H. Kennedy and E. A. Zillmer (New York: Guilford Press, 2006), 215–40.
- C. D. Lamerson, "Peacekeeping Stress: Testing a Model of Organizational and Personal Outcomes" (PhD Diss., University of Guelph, 1995).
- E. E. Bolton, D. M. Glenn, S. Orsillo, L. Roemer, and B. Litz, "The Relationship Between Self-Disclosure and Symptoms of Posttraumatic Stress Disorder in Peacekeepers Deployed to Somalia," *Journal of Traumatic Stress* 16 no. 3 (2003): 203–10.
- C. D. Lamerson and E. K. Kelloway, "Towards a Model of Peacekeeping Stress: Traumatic and Contextual Influences," *Canadian Psychology* 37 no. 4 (1996): 195–204.
- In which a previously agreed-upon ceasefire has been established between conflicting parties, and/or where nations gave their consent for the presence of peacekeepers.
- Such as in the cases of Rwanda and Somalia. See B. Boutros-Ghali, Supplement to an Agenda for Peace. Position Paper of the Secretary-General on the Occasion of the Fiftieth Anniversary of the United Nations. (New York: United Nations, 1995).
- For a review see M. Inness and J. Barling, "Violence in Peacekeeping," in *Handbook of Workplace Violence*, eds. E. K. Kelloway, J. Barling and J. J. Hurrell Jr. (Thousand Oaks: Sage, 2006), 309–29.
- 9. One related purpose of the HDO Project was to provide tactical commanders with a scientific instrument (the HDO Survey) to monitor in near real-time the behavioural health status of their troops and the social climate within their units (e.g., the morale, cohesion, and soldiers' confidence in the unit chain of command). The purpose has changed over the years, and the HDO Survey is now used to evaluate training outcomes (e.g., for the Army Ethics Programme) and to inform personnel policy development (e.g., OPTEMPO and policies on tour length). For more on the HDO Project, see Chapter 1 of this publication.
- K. Myklebust, The Impact of Family Issues throughout the Deployment Cycle: The Human Dimension of Operations Project, Technical Note 99-3 (Ottawa: Defence Research and Development Canada, 1999).
- 11. P. J. Murphy and K. M. L. Farley, "Morale, Cohesion, and Confidence in Leadership: Unit Climate Dimensions for Canadian Soldiers on Operations," in

- The Human in Command: Exploring the Modern Military Experience, eds. C. McCann and R. Pigeau (New York: Kluwer Academic/Plenum, 2000), 311–31.
- P. G. Bourne, Men, Stress, and Vietnam (Boston: Little, Brown, 1970); D. H. Marlowe, Psychological and Psychosocial Consequences of Combat and Deployment with Special Emphasis on the Gulf War [Adobe Digital Editions Version, 2001], http://www.rand.org/ pubs/monograph_reports/MR1018z11.html; S. A. Stouffer, The American Soldier: Combat and its Aftermath (Princeton: Princeton U. P., 1949).
- E.g., Z. M. Solomon, M. Weisenberg, J. Schwarzwald, and M. Mikulincer, "Post-Traumatic Stress Disorder among Soldiers with Combat Stress Reactions: The 1982 Israeli Experience," *American Journal of Psychiatry* 144 (1987): 448–54.
- 14. L. I. Pratt and J. Barling, "Differentiating between Daily Events, Acute and Chronic Stressors," in *Occupational Stress: Issues and Development in Research*, eds. J. R. Hurrell, L. R. Murphy, S. L. Sauter, and C. L. Cooper (London: Taylor and Francis, 1988), 42–50; E. K. Kelloway and A. L. Day, "Building Healthy Organizations: What We Know So Far," *Canadian Journal of Behavioural Science* 37 (2005): 223–36.
- 15. Readers interested in a historical review of this literature are referred to Marlowe, *Psychological and Psychosocial Consequences of Combat.*
- 16. P. T. Bartone, A. B. Adler, and M. A. Vaitkus, "Dimensions in Psychological Stress in Peacekeeping Operations," Military Medicine 163 (1998): 587–93; B. T. Litz, L. A. King, D. W. King, S. M. Orsillo, and M. J. Friedman, "Warriors as Peacekeepers: Features of the Somalia Experience and PTSD," Journal of Consulting and Clinical Psychology 65 (1997): 1001–10; M. E. McFall, P. W. Mackay, and D. M. Donovan, "Combat-related Posttraumatic Stress Disorder and Severity of Substance Abuse in Vietnam Veterans," Journal of Studies on Alcohol 53 (1992): 357–63.
- D. A. Meichenbaum, A Clinical Handbook/Practical Therapist Manual for Assessing and Treating Adults with Post-Traumatic Stress Disorder (PTSD) (Waterloo, ON: Institute Press, 1994); B. Wheaton, "The Nature of Stressors," in A Handbook for the Study of Mental Health: Social Contexts, Theories, and Systems, eds. Allan V. Horwitz and Teresa L. Scheid (New York: Cambridge U. P., 1999), 176–97.
- 18. Pratt and Barling, "Differentiating between Daily Events," 42–50.
- 19. Bartone, Alder, Vaitkus, "Dimensions in Psychological Stress," 587–93.
- 20. Lamerson and Kelloway, "Towards a Model of Peacekeeping Stress," 195–204. This model is arguably also applicable to operational stress in general.
- 21. Ibid.
- 22. M. Inness and J. Barling, "Violence in Peacekeeping," 309–29.
- 23. Lamerson and Kelloway, "Towards a Model of Peacekeeping Stress," 195-204.

- O. Udwin, S. Boyle, W. Yule, D. Bolton, and D. O'Ryan, "Risk Factors for Long-Term Psychological Effects of a Disaster Experienced in Adolescence: Predictors of Post-Traumatic Stress Disorder," *Journal of Child Psychology & Psychiatry & Allied Disciplines* 41 (2000): 969–79.
- R. S. Lazarus and S. Folkman, Stress, Appraisal, and Coping (New York: Springer, 1984).
- See A. B. Bakker and E. Demerouti, "The Job-Demands Resources Model: State of the Art," *Journal of Managerial Psychology* 22 no. 3 (2007): 309–28; E. Demerouti, A. Bakker, F. Nachreiner, and W. Schaufeli, "The Job Demands-Resources Model of Burnout," *Journal of Applied Psychology* 86 (2001): 499–512.
- 27. Bakker and Demerouti, "The Job-Demands Resources Model," 309-28.
- 28. W. Schaufeli and A. Bakker, "Job Demands, Job Resources, and their Relationship with Burnout and Engagement: A Multi-Sample Study," *Journal of Organizational Behaviour* 25 (2004): 293–315.
- A. B. Bakker, E. Demerouti, T. W. Taris, W. B. Schaufeli and P. J. Schreurs, "A Multi-Group Analysis of the Job-Demands Resource Model in Four Home Care Organizations," *International Journal of Stress Management* 10 no. 1 (2003): 16–38.
- 30. Kelloway and Day, "Building Healthy Organizations," 223–36.
- 31. S. Booth-Kewley and H. S. Friedman, "Psychological Predictors of Heart Disease: A Quantitative Review," *Psychological Bulletin* 101, no. 3 (1987): 343–62.
- 32. P. B. Repetto, C. H. Caldwell, and M. A. Zimmerman, "A Longitudinal Study of the Relationship between Depressive Symptoms and Cigarette Use among African American Adolescents," *Health Psychology* 24, no. 2 (2005): 209–19.
- 33. See, for example, S. M. Jex, Stress and Job Performance: Theory, Research and Implications for Managerial Practice (Thousand Oaks: Sage, 1998).
- 34. Inness and Barling, "Violence in Peacekeeping," 309–29.
- 35. Litz et al., "Warriors as Peacekeepers," 1001–10.
- 36. Diagnostic and Statistical Manual of Mental Disorders, Revised Fourth Edition (Washington: American Psychiatric Association, 2000); W. Ward, "Psychiatric Morbidity in Australian Veterans of the United Nations Peacekeeping Force in Somalia," Australian & New Zealand Journal of Psychiatry 31 (1997): 184–93.
- 37. J. R. Hosek, J. Kavanaugh, and L. L. Miller, How Deployments Affect Service Members [Adobe Digital Editions Version, 2006]. Retrieved from http://www.rand.org/pubs/monographs/MG432.html; S. M. Orsillo, S. M., L. Roemer, B. T. Litz, P. Ehlich and M. J. Friedman, "Psychiatric Symptomatology Associated with Contemporary Peacekeeping: An Examination of Post-Mission Functioning among Peacekeepers in Somalia," Journal of Traumatic Stress 11 (1998): 611–25.

- 38. J. A. Fairbank, W. E. Schlenger, J. M. Caddell, and M. G. Woods, "Post-Traumatic Stress Disorder," in Comprehensive Handbook of Psychopathology, Second Edition, eds. Patricia B. Sutker and Henry E. Adams (New York: Plenum Press, 1993), 145–65; R. A. Kulka, W. E. Schlenger, J. A. Fairbank, R. L. Hough, B. K. Jordan, C. R. Marmar, and D. S. Weiss, Trauma and the Vietnam War Generation: Report of Findings from the National Vietnam Veterans Readjustment Study, Brunner-Mazel Psychosocial Stress Series, No. 18. Philadelphia: Brunner-Mazel, 1990.
- Bartone, Alder, and Vaitkus, "Dimensions in Psychological Stress," 587–93; B. S. Donovan, E. Padin-Rivera, T. Dowd, and D. D. Blake, "Childhood Factors and War Zone Stress in Chronic PTSD," Journal of Traumatic Stress 9 (1996): 361–68; M. Hotopf, A. David, L. Hull, K. Ismail, C. Unwin, and S. Wessely, "The Health Effects of Peacekeeping (Bosnia, 1992–1996): A Cross-Sectional Study-Comparison with Nondeployed Military Personnel," Military Medicine 168, no. 5 (2003): 408–41; D. Lauterbach and S. Vrana, "The Relationship among Personality Variables, Exposure to Traumatic Events, and Severity of Posttraumatic Stress Symptoms," Journal of Traumatic Stress 14 (2001): 29–45.
- W. R. Schumm and D. B. Bell, "Soldiers at Risk for Individual Readiness or Morale Problems during a Six-Month Peacekeeping Deployment to the Sinai," *Psychological Reports* 87 (2000): 623–33.
- 41. K. Rogers and E. K. Kelloway, "Violence at Work: Personal and Organizational Outcomes," *Journal of Occupational Health Psychology* 2 (1997): 63–71.
- 42. The term *buffer* refers to personal and situational factors that can shield soldiers from the adverse effects of deployment stressors.
- 43. See Chapter 7 of this publication for more on trust.
- 44. E.g., J. A. Fairbank, D. J. Hansen, and J. M. Fitterling, "Patterns of Appraisal and Coping across Different Stressor Conditions among Former Prisoners of War with and Without Posttraumatic Stress Disorder," Journal of Consulting and Clinical Psychology 59, no. 2 (1991): 274–81; B. L. Green, M. C. Grace, J. D. Lindy, G. C. Gleser, and A. Leonard, "Risk Factors for PTSD and Other Diagnoses in a General Sample of Vietnam Veterans," American Journal of Psychiatry 147 (1990): 729–33.
- 45. Inness and Barling, "Violence in Peacekeeping," 309–29.
- 46. The word model is used here to mean a framework or theory for understanding how problems related to stress arise.
- 47. Pratt and Barling, "Differentiating between Daily Events," 42–50; Kelloway and Day, "Building Healthy Organizations," 223–36.
- 48. Lamerson and Kelloway, "Towards a Model of Peacekeeping Stress," 195–204; P. J. Murphy, K. M. J. Farley, and T. Dobreva-Martinova, "A Conceptual

- Approach to the Study of Stress in Peacekeeping Personnel" (paper presented to the NATO Research & Technology Organization Aerospace Medical Panel Symposium on Aeromedical Support Issues in Contingency Operations, Rotterdam, Netherlands, 1997).
- 49. M. Zamorski, Personal Communication, 31 August, 2011.
- 50. P. J. Murphy and K. M. L. Farley, "Morale, Cohesion, and Confidence in Leadership: Unit Climate Dimensions for Canadian Soldiers on Operations," in *The Human in Command: Exploring the Modern Military Experience*, eds. C. McCann and R. Pigeau (New York: Kluwer Academic/Plenum, 2000), 311–31.
- 51. Murphy, Farley, and Dobreva-Martinova, "A Conceptual Approach."
- 52. Adapted from Murphy, Farley, and Dobreva-Martinova, "A Conceptual Approach."
- 53. K. Farley and J. A. Veitch, "Measuring Morale, Cohesion and Confidence in Leadership: What are the Implications for Leaders?" *The Canadian Journal of Police & Security Services* 1 no. 4 (2003): 353–364.
- H. J. McCuaig Edge and G. W. Ivey, "The Mediation of Cognitive Appraisal on Combat Exposure and Psychological Distress," *Military Psychology* 24 (2012): 71–85.
- 55. Responses are recorded on a 5-point scale ranging from 1 (No trouble or concern) to 5 (Very much trouble or concern).
- 56. Operation PALLADIUM is a peacekeeping operation that took place in Bosnia. Operation ATHENA was Canada's contribution of peace-support and combat forces to the International Security Assistance Force (ISAF) in Afghanistan from 17 July 2003 to 1 December 2011. Operation ATHENA had two phases. In Phase I, it was essentially a peace-support mission in Kabul, where ISAF was concerned with ensuring security while the nascent Afghan government developed its constitution and held its first elections. In Phase II, Operation ATHENA moved to Kandahar Province to become the Canadian Forces' longest-running combat mission. (Reproduced from CEFCOM, http://www.cefcom.forces.gc.ca/pa-ap/ops/athena/index-eng.asp.)
- 57. Adapted from K. J. Brown, *Human Dimensions of Operations: Norm Development 2004*, Sponsor Research Report 2005-02 (Ottawa: Defence Research and Development Canada, 2005). Pre = pre-deployment, Early = six to eight weeks in theatre, Mid = two to four months in theatre, and Late = four to six weeks prior to departure.
- 58. K. Farley, Development of the Canadian Forces Stress in Military Operations Questionnaire, Technical Note 15/95 (Willowdale, Ontario: Defence Research and Development Canada, 1995); T. Dobreva-Martinova, Psychometric Analysis of the Stress in Military Service Questionnaire Based on Surveys of Deployed Canadian Forces Personnel, Director General Military Personnel Research and Analysis, Sponsor Research Report 98-16 (Ottawa: Defence Research and Development Canada, 1998).

- 59. Myklebust, The Impact of Family Issues.
- D. R. McCreary, M. M. Thompson, and L. Pastò, "Predeployment Family Concerns and Soldier Well-Being," *The Canadian Journal of Police & Security Services* 1, no. 1 (2003): 33–40.
- Family concerns accounting for 55% to 91% of the variance in psychological wellbeing.
- For more on the impact of deployments on military families, see Chapter 10 of this publication.
- 63. Dobreva-Martinova, Psychometric Analysis of the Stress in Military Service Questionnaire; M. M. Thompson and L. Pastò, Psychometric Assessment and Refinement of the Homecoming Issues Inventory of the Human Dimensions of Operations (HDO) Project, Technical Report DCIEM 2000-068 (Toronto: Defence Research and Development Canada, 2000); McCreary, Thompson, Pastò, "Predeployment Family Concerns," 33–40; A. Blais, M. M. Thompson, and D. R. McCreary, Postdeployment Reintegration Measure: Psychometric Replication and Preliminary Validation Results, DRDC Technical Report 2005-277 (Toronto: Defence Research and Development Canada, 2006).
- 64. Lamerson, Peacekeeping Stress.
- 65. Note, however, that an important minority does suffer from severe symptoms. It is a leader's responsibility to look at each individual and see how each is coping.
- 66. Adapted from Brown, *Human Dimensions of Operations*. A four-point scale, ranging from 1 (Never) to 4 (Very Often), was used to rate how often each of the signs of stress were experienced during the month prior to survey completion.
- 67. R. Izzo, J. A. Lapointe, M. Villeneuve, and D. Columbe, "Measuring Indicators of Human Readiness in Peace Support Operations" (paper presented at the 42nd International Military Testing Association Conference, Edinburgh, Scotland, 2000).
- R. C. G. Andrews, L. J. Colpe, D. K. Mroczek, S.-L. T. Normand, E. E. Walters, and A. M. Zaslavsky, "Short Screening Scales to Monitor Population Prevalences and Trends in Non-Specific Psychological Distress," *Psychological Medicine* 32 (2002): 959–76.
- 69. G. W. Ivey, J.-R. S. Blanc, M. Therrien and H. McCuaig Edge, "Human Dimensions of Operations Project" (paper presented at the Annual Conference of the International Military Testing Association, Tartu, Estonia, 2009).
- 70. Ivey et al., "Human Dimensions of Operations Project."
- 71. Figures are based on cut-off scores developed by University of New South Wales' Clinical Research Unit for Anxiety and Depression (Department of Human Services Centre for Population Studies in Epidemiology, 2002). Respondents were assigned risk categories (i.e., low, medium, or high) for psychological distress.

- G. W. Ivey and M. Therrien. Psychological Distress Levels among TF 1-08/TF3-08, Human Dimensions of Operations (HDO) Survey Respondents, Letter Report 1150-1 [DROOD 3-2] (Ottawa: Defence Research and Development Canada, 2010).
- 73. Lazarus and Folkman, Stress, Appraisal, and Coping.
- 74. Ivey and Therrien, Psychological Distress Levels, 7.
- 75. Office of the Surgeon Multinational Force-Iraq & Office of the Surgeon General United States Army Medical Command. Mental Health Advisory Team (MHAT) IV Operation Iraqi Freedom 05-07: Final Report, 2006. Retrieved from http://www.armymedicine.army.mil/reports/mhat/mhat_iv/MHAT_IV_Report_17NOV06.pdf.
- 76. Adapted from Ivey et al., "Human Dimensions of Operations Project."
- 77. Adapted from Office of the Command Surgeon U.S. Forces Afghanistan & Office of the Surgeon General United States Army Medical Command. Mental Health Advisory Team 6 Operation Enduring Freedom 2009 Afghanistan, 2009. Retrieved from http://www.armymedicine.army.mil/reports/mhat/mhat_vi/MHAT_VI-OEF_Redacted.pdf.
- E. R. Black, Combat Stress Management: A Literature Summary. Technical Note 8/87 (Willowdale, Ontario: Defence Research and Development Canada, 1987).
- 79. Farley and Veitch, "Measuring Morale," 353-64.
- Brown, Human Dimensions of Operations; T. Dobreva-Martinova, Psychometric Analysis
 of the COPE Inventory Based on Survey of Deployed Canadian Forces Personnel, Sponsor
 Research Report 99-6 (Ottawa: Defence Research and Development Canada,
 1999).
- 81. A. Blais, M. M. Thompson, A. Febbraro, D. Pickering, and D. McCreary, The Development of a Multidimensional Measure of Postdeployment Reintegration: Initial Psychometric Analyses & Descriptive Results, DRDC Technical Report 2003-142 (Toronto: Defence Research and Development Canada, 2003); T. Dobreva-Martinova, Confidence in Leadership: Replication of Murphy & Farley's Exploratory Analyses of the Unit Climate Profile, Contract Report 2001-149 (Toronto: Defence Research and Development Canada, 2001); P. J. Murphy and K. M. J. Farley, Postdeployment Status of CF Personnel: Preliminary Findings, Sponsor Research Report 00-8 (Ottawa: Defence Research and Development Canada, 1998).
- 82. Adapted from Brown, Human Dimensions of Operations.
- T. Dobreva-Martinova, P. J. Murphy, and K. M. Farley, "The Human Dimensions of Peacekeeping: Selective Analyses from the Canadian Experience," (paper presented at the 21st Annual Scientific Meeting of the International Society of Political Psychology, Montreal, 1998).

- 84. Murphy and Farley, Postdeployment Status of CF Personnel.
- 85. K. Garabedian, *The Human Dimensions of Operations (HDO) Survey: A Qualitative Analysis of Three Postdeployment Surveys*, Sponsor Research Report 2006-10 (Ottawa: Defence Research and Development Canada, 2006).
- 86. Garabedian, The Human Dimensions of Operations (HDO) Survey, 5.
- Murphy and Farley, Postdeployment Status of CF Personnel; G. Ivey, personal correspondence, 01 March 2011.
- 88. Thompson and Pastò, Psychometric Assessment and Refinement.
- 89. D. I. Pickering, *The Relationship between Perceived Organizational and Cultural Support and Soldiers' Post-Deployment Symptoms*, DRDC Technical Report 2006-053 (Toronto: Defence Research and Development Canada, 2006).
- 90. Ibid.
- 91. Blais et al., *Postdeployment Reintegration Measure*; Blais et al., *The Development of a Multidimensional Measure*. For more on post-deployment reintegration, see Chapter 9 of this publication.
- 92. Blais et al., Postdeployment Reintegration Measure.
- S. L. Currie and A. L. Day, Exploring the Relationships between Psychological Health, Coping and Turnover Intentions in Military Personnel: Examining Scale Factor Structures and Modelling of Variables, Technical Note 2010-002 (Ottawa: Defence Research and Development Canada, 2010).
- Blais et al., Postdeployment Reintegration Measure; Blais et al., The Development of a Multidimensional Measure.
- 95. B. G. Garber and M. A. Zamorski, "Evaluation of a Third-Location Decompression Program for Canadian Forces Members Returning from Afghanistan," (paper presented at the 26th Annual Meeting of the International Society for Traumatic Stress Studies, Montreal, 2010).
- 96. Given the cross-sectional nature of this study, no causal effect can be attributed between TLD and the health outcomes.
- S. L. Currie, A. L. Day and E. K. Kelloway, "Bringing the Troops Back Home: Modeling the Postdeployment Reintegration Experience," *Journal of Occupational Health Psychology* 16, no. 1 (2011): 38–47.
- 98. S. Maguen, M. Suvak, and B. T. Litz, "Operational Stress," in *Military Life: The Psychology of Serving in Peace and Combat*, vol. 2: *Operational Stress*, eds. A. B. Adler, C. A. Castro, T. W. Britt, 141–69 (Westport: Praeger Security International, 2006).
- 99. Bolton et al., "The Relationship Between Self-Disclosure," 203-10.
- 100. Hotopf et al., "The Health Effects of Peacekeeping," 408-41.

- 101. P. Michel, T. Lundin, and G. Larsson, "Stress Reactions among Swedish Peacekeeping Soldiers Serving in Bosnia: A Longitudinal Study," *Journal of Traumatic Stress* 16 no. 6 (2003): 589–93.
- 102. E.g., H. Han, B. T. Litz, J. L. Wang, T. W. Britt, A. B. Adler, P. T. Barton, et al., Predictors of PTSD Symptomatology in U.S. Soldiers Deployed in Bosnia (manuscript submitted for publication, 2004) as cited in Maguen, Suvak, and Litz "Operational Stress," 141–69.
- 103. Office of the Command Surgeon U.S. Forces Afghanistan & Office of the Surgeon General United States Army Medical Command. Mental Health Advisory Team 6 Operation Enduring Freedom 2009 Afghanistan, 2009. Retrieved from http://www.armymedicine.army.mil/reports/mhat/mhat_vi/MHAT_VI-OEF_ Redacted.pdf.
- 104. Ivey and Therrien, Psychological Distress Levels.
- 105. Ivey et al., "Human Dimensions of Operations Project."
- 106. Brown, Human Dimensions of Operations.
- 107. Pickering, The Relationship between Perceived Organizational and Cultural Support.
- 108. E.g., E. E. Bolton, B. T. Litz, D. M. Glenn, S. Orsillo, and L. Roemer, "The Impact of Homecoming Reception on the Adaptation of Peacekeepers Following Deployment," *Military Psychology* 14, no. 3 (2002): 241–51; D. Fikretoglu, A. Brunet, J. Poundja, S. Guay and D. Pedlar, "Validation of the Deployment Risk and Resilience Inventory in French-Canadian Veterans: Findings on the Relation between Deployment Experiences and Postdeployment Health," *Canadian Journal of Psychiatry* 51, no. 12 (2006): 755–63.
- 109. Currie, Day, and Kelloway, "Bringing the Troops Back Home," 38–47.
- 110. *M.B.* Reporting a significant change when in reality the score went from a 3.0 to a 4.4 on a scale ranging from 1 to 5. See M. Claybourn and B. Spinner, *An Evaluation of the Stage Model of Operational Deployment*, Department of Psychology, University of New Brunswick (New Brunswick, Canada, 2007).
- 111. Refer to Chapter 3 of this publication for more information on resilience.
- 112. C. A. Castro, "Considerations when Conducting Psychological Research during Peacekeeping Missions: The Scientist and the Commander," in *The Psychology of the Peacekeeper: Lessons from the Field*, eds. T. W. Britt and A. B. Adler (Westport: Praeger Publishers, 2003), 11–27.
- 113. Currie, Day, and Kelloway, "Bringing the Troops Back Home," 38–47.
- 114. T. W. Britt, C. A. Castro, and A. B. Adler, "Military Performance: Common Themes and Future Directions," in *Military Life: The Psychology of Serving in Peace* and Combat, vol. 1, Military Performance, eds. T. W. Britt, C. A. Castro, and A. B. Adler (Westport: Praeger Security International, 2006), 235–38.

- 115. M. E. P. Seligman and M. Csikszentmihalyi, "Positive Psychology," *American Psychologist* 55, no. 1 (2000): 5–14.
- 116. Canadian Forces Leadership Institute, *Leadership in the Canadian Forces: Conceptual Foundations* (Kingston: Canadian Defence Academy, 2005).
- 117. J. C. Y. Martineau and K. Garabedian, *HDO Backgrounder* (Ottawa: Defence Research and Development Canada, 2008).

CHAPTER 3:

PSYCHOLOGICAL RESILIENCE

Donald R. McCreary and Deniz Fikretoglu

Consider the following hypothetical situation. One thousand people experience the same traumatic event (e.g., a natural disaster like Hurricane Katrina). Of those thousand individuals, current estimates¹ suggest that approximately 400 people will experience no stress response. About 600 people will experience an acute stress response (e.g., depression, anxiety, anger, despair), but to a varying degree. Of those 600 individuals, the symptoms will recede over about four months in about 92% of the cases (550 individuals). For the remaining 50 people, the symptoms will actually increase: they will have recurrent or distressing dreams of the event, they will avoid people and places that are reminders of the event, and they will feel detached or estranged from others, and have difficulty falling or staying asleep. These symptoms may then become post-traumatic stress disorder, depression, or another form of anxiety-related disorder. In addition to conditions such as PTSD, there may also be anger management problems, substance abuse, violent acts and even suicide.

Contrary to the messages society often sends, being exposed to a traumatic or highly stressful situation does not always lead to adverse

psychological health outcomes. The prevalence estimates used in this example are based on data from (mostly civilian) individuals experiencing a single traumatic event. But

Most individuals in traumatic situations – regardless of whether they are civilian or military – will not develop a diagnosable mental health condition. In other words, the majority of people are what are often called psychologically resilient in the face of stress and trauma.

even when prevalence estimates from military contexts are used, where members can experience multiple traumatic events (e.g., combat) over one or more deployments (varying from 6 to 18 months), the numbers are only slightly higher.² Thus, the important message is that most individuals in traumatic situations – regardless of whether they are civilian or military – will not develop a diagnosable mental health condition. In other words, the majority of people are what are often called psychologically resilient in the face of stress and trauma.

This raises two important questions: (1) What are the psychological mechanisms that protect individuals from the adverse psychological consequences of exposure to trauma and stress? And (2) once identified, can these resilience mechanisms be taught to at-risk individuals (e.g., military personnel)? In fact, many Western militaries are already developing resilience training programs, such as the Road to Mental Readiness ([R2MR] Canada) and the Comprehensive Soldier Fitness Program (U.S.), or peer support programs like Trauma Risk Management (U.K.). These types of programs are intended to educate service personnel about psychological stress, its potential effects on health and well-being, and to provide them with tools to cope more effectively. Inherent in all these programs are beliefs about what resilience is, how it can be measured and how it can be improved, especially in terms of program outcomes. But one question remains: Have these and other countries jumped the gun by developing resilience training programs before there is a firm scientific understanding of the nature of psychological resilience (i.e., before the first question identified above has been fully answered)?

This chapter outlines the main issues in this debate. Our goal is to explain how psychological resilience is understood and how the concept has been applied, so that questions surrounding resilience and resilience training can be approached in a more critical manner. This chapter also provides an overview of the various Canadian Armed Forces interventions aimed at enhancing resilience, as well as the role the Human Dimensions of Operations Project has played in developing our understanding of resilience. We begin with the problem of defining resilience.

DEFINITIONS OF PSYCHOLOGICAL RESILIENCE

Unlike other areas of human psychology, the study of resilience is new and, as such, it is evolving. Part of this evolution comes in the form of how researchers³ define resilience. In new areas such as this, definitions typically start out vague and become more scientifically rigorous and testable. This process is currently underway in the field of resilience. As a result, it is important to note that there is currently no agreed-upon scientific definition of psychological resilience.

Definition of Resilience

When individuals talk about psychological resilience, they tend to use its commonly understood, intuitive meaning: the ability to bounce back to one's normal self after experiencing a stressful event. Inherent in this definition of resilience is the notion that some people can bounce back more readily – that is, some people are more resilient than others. There also is the belief that individuals may be more or less resilient at certain points in their lives. For example, as people age, they may become better able to handle the stressors life throws at them – that is, they become more resilient. On the other hand, some people may become more worn down by exposure to multiple traumatic or stressful events, such as increased age and life experiences. Meanwhile, others may not change much at all across their lifespan. So there appear to be multiple trajectories for changes in resilience throughout a lifetime. That makes it difficult to predict whether someone will be more or less resilient than the average person at any given point in time, as he/she gets older or collects more life experiences.

Some researchers use a thermostat analogy when they describe how resilience is thought to work. A house thermostat is set at a certain temperature, but exposure to changes in the environment can cause the furnace (or air conditioner) to turn on until the thermostat returns to its set point. The analogy is meant to suggest something similar with regard to people's resilience in the face of stress or trauma. Individuals exposed to it may have a reduction in their resilience. Over time, through rest and recovery, the individual's resilience returns to its initial set point. But not every person will necessarily return to their initial level; some might find that they have a new set point, either lower or higher than the previous one.

So how does the intuitive definition of resilience stand up as a scientific definition? Unfortunately, not well. There are three main problems with translating the intuitive definition into a scientific one. The first complication lies in the vague nature of what it means to "bounce back." Is there a single characteristic within the individual that drives the bouncing-back process, or are multiple characteristics involved? Are the reasons people bounce back purely psychological, or are there also biological, social, and

organizational differences that influence psychological resilience? What are the processes or mechanisms that give rise to such differences? In other words, the notion of bouncing back is extremely difficult to *define*.

A second obstacle researchers face when translating the intuitive definition of resilience into a scientific one is this: it is not obvious how "our normal selves" should be defined. Does "normal self" refer to our overall sense of ourselves (e.g., "I feel like myself again"), our mood, our level of psychological functioning or impairment (e.g., reduction of acute stress reaction symptoms), or some other aspect of the self? What about growth? Does a person have to return to their previous self or can they actually become better than they were as a result of being exposed to stress and trauma? For example, some people may develop a greater sense of self-confidence as a result of feeling that they have successfully dealt with a traumatic or stressful event. Some would argue that these people are now more resilient than they were before.

The third challenge lies in trying to *measure* bouncing back to one's normal self. The idea of bouncing back implies that we can measure a person's initial state, or normal self, prior to being exposed to stressors or traumatic events. The idea also seems to imply that there is a *process* involved in bouncing back. It is important that we be able to measure the "self" before, immediately following, and many months after a stressful or traumatic event. That is how we would determine whether interventions designed to increase resilience have worked, and how long the natural resilience process takes. Ideally, we would have measured all aspects of the normal self immediately prior to the stressful or traumatic event, so that the only factor left over to explain the better outcome in some, but not others, is different aspects of psychological resilience. Another way would be to measure resilience variables directly after exposure to the adverse event and then monitor these over time.

Resilience: A Process, Not an Outcome

One way of thinking about resilience is to focus on the outcome. Using this notion of resilience, people who experience a traumatic or stressful situation, yet do not develop a diagnosable mental health condition, can be described as resilient; others who do develop one are often considered to be not resilient. The underlying assumption here is that resilience is something that resides within the individual and does not change over time. The problem is that we know there are factors outside of individuals (e.g., family, military unit and social support) that also affect how someone responds to stress and trauma. In addition, someone can have good outcomes in the face of one trauma (i.e., be resilient) and yet not have good ones in the face of another trauma (i.e., not be resilient).

From a practical standpoint, moreover, resilience might be something teachable or trainable. If that is the case, the important thing about resilience is not whether trauma or stress causes an adverse psychological reaction; what is important is the processes within individuals and their environment that protect them from adverse mental health conditions, while putting others at risk. In other words, if we can understand the processes that make people resilient, and these processes turn out to be teachable, we can train people to be more resilient in the face of stress and trauma. Knowing these processes is especially valuable in a military context because soldiers are subject to stress and trauma. This is why resilience has recently been seen as a process, not an outcome.

What are these resilience processes? Two groups of scientists have conducted some of the most thorough reviews of the scientific literature on psychological resilience to date.⁴ They have identified numerous psychological, social, organizational (e.g., morale, cohesion, lack of shift-work and work-life balance) and biological (e.g., immune and cardiovascular functioning) mechanisms that have been shown to protect individuals from the undesirable results of trauma and stress. Some of the psychological characteristics that researchers have linked to positive outcomes in the face of stress and trauma include the following: greater adaptability and flexibility; higher levels of agreeableness, extraversion, and openness to experience; lower levels of neuroticism (i.e., lack of emotional stability); higher degrees of self-esteem, mastery, intelligence, psychological hardiness, coping by humour, coping by problem solving, internal locus of control, optimism, hope, creativity, faith, forgiveness, as well as both achievement and goal orientation.⁵

On the social level, greater levels of support from friends and family, as well as social integration, have been shown to buffer the adverse effects of trauma and stress. Social support has been shown to be exceptionally helpful, and can come in many forms: instrumental (e.g., providing tangible assistance to someone), informational (e.g., giving advice) and emotional (e.g., empathy, reassurance). But not all aspects of social support are helpful. When the emotional support offered to someone is unrealistic, adverse consequences can result.

Moving Towards a Scientific Definition of Resilience

No doubt, the intuitive view of resilience is easy to understand. But it is not a true scientific definition because it is too vague to be measured. If

If a construct such as resilience cannot be defined precisely, then it cannot be measured, and theories or intervention programs cannot be developed and tested using the scientific method.

a construct such as resilience cannot be defined precisely, then it cannot be measured, and theories or intervention programs cannot be developed

and tested using the scientific method. To date, several researchers and clinicians have used the intuitive definition as a starting point to try and come up with a more precise scientific one. Some attempts have been more successful than others. A few examples of these definitions are presented below:⁶

Psychological resilience has been characterized by the ability to bounce back from negative emotional experiences and by flexible adaptation to the changing demands of stressful experiences.⁷

Resilience embodies the personal qualities that enable one to thrive in the face of adversity [...] Resilience is a multidimensional characteristic that varies with context, time, age, gender, and cultural origin, as well as within an individual subjected to different life circumstances.⁸

Resilience is a dynamic process wherein individuals display positive adaptation despite experiences of significant adversity or trauma. This term does not represent a personality trait or an attribute of the individual [...] Rather, it is a two-dimensional

construct that implies exposure to adversity and the manifestation of positive adjustment outcomes.⁹

Some of these definitions still focus on the idea of bouncing back. Yet one can see that there have been important advances in precision. Some definitions refer to the notion of positive or flexible adaptation, for example, while others suggest that resilience has multiple factors and that it is inherently dynamic. Many definitions note the importance of both chronic stressors

and acute traumatic events. This increased precision is important because it also allows us to develop better ways of measuring resilience. With rigorous measurement tools in place, the scientific method can be

"Resilience is a dynamic process in which psychological, social, environmental, and biological factors interact to enable an individual at any stage of life to develop, maintain, or regain their mental health despite exposure to adversity."

used to determine the most effective facets of positive or flexible adaptation and measure it in a way that best reflects its dynamic nature.

As the understanding of psychological resilience develops, the definitions also become more refined. For example, a new definition of psychological resilience recently emerged from the Preventing Violence Across the Lifespan Research Network (PReVAiL).¹⁰ It has reached the following consensus definition of resilience: "Resilience is a dynamic process in which psychological, social, environmental, and biological factors interact to enable an individual at any stage of life to develop, maintain, or regain their mental health despite exposure to adversity."¹¹

The PReVAiL definition has important features not found in many other definitions of resilience. First, it acknowledges that resilience is dynamic, in that it can be developed in those who need it, it can be lost and regained, it needs to be maintained, and that all of this can happen at any life stage. Second, it notes that resilience is influenced by multiple factors. It does not define what aspects of each of these factors are most important, but leaves it to researchers to identify those aspects that help people develop, maintain, or regain a state of positive psychological well-being in the face of adversity. Third, it builds on the traditional bio-psycho-social model found in psychology (and medicine), noting that the four identified dimensions do not work in isolation and that changes in one area can have consequences in

the other dimensions as well. How these mechanisms work needs to be better understood, but definitions such as this one allow researchers to test existing concepts, as well as to build (and to refine) new ones. Most importantly, it also allows researchers to develop and test potential interventions.

A theme in some definitions of resilience is the notion of thriving in the face of adversity, sometimes referred to as posttraumatic growth. The idea that exposure to trauma and stress can lead to positive, as well as negative consequences has recently emerged from the area of positive psychology, which wishes to balance the past emphasis on the negative aspects of psychological well-being with a focus on the aspects of psychology that allow individuals to grow and thrive (e.g., happiness and optimism). This is a growing area within the field of psychology and has been the basis of resilience training interventions, such as the U.S. Army's Comprehensive Soldier Fitness program. However, it is important to note that there are also scientific limitations to thriving, post-traumatic growth, and related concepts. Some are poorly defined and the validity of their measurement is questionable.

MEASURING PSYCHOLOGICAL RESILIENCE

If military psychologists want to develop programs to enhance resilience, they also need a way to assess whether their programs are effective. Thus, they have to be able to measure resilience before the programs are implemented, then again afterwards. In addition, they need to be able to show that any changes in resilience lead to a significant decrease in psychological distress. But as we discussed before, the scientific definition of resilience is still controversial.

When developing resilience measures, one of the first things to consider is whether resilience is a single characteristic within the individual, ¹⁴ or whether it is a composite of a number of biological, psychological and social characteristics within the individual and his/her environment. Given the complexity and the evolution of the scientific definitions, it is most likely that resilience is comprised of multiple aspects, as opposed to a single personality trait.

Once we move away from the notion that resilience is a single characteristic residing in individuals, we invite new questions about the nature of resilience as a composite of factors that buffer the association between stress and trauma and adverse psychological outcomes. In other words, we now have to look at all the variables that differ between resilient and non-resilient individuals and figure out: (1) which factors are the most important; (2) which are the most amenable to change; (3) whether these resilience factors work in the same way across all contexts and across the lifespan; and (4) what are the best intervention strategies to enhance the most promising resilience factors.

An initial examination of whether resilience is a single characteristic or composed of multiple factors was described by Lee, Sudom and McCreary, 15 who used data from the Canadian Forces Recruit Health Questionnaire. The questionnaire is given to recruits during the first week of basic training. It contains a number of measures that assess social and personality dimensions that can be theoretically linked with resilience. These include personality traits such as agreeableness, conscientiousness, extroversion, neuroticism, openness to experience (i.e., the Big Five personality traits), as well as optimism, psychological hardiness, self-esteem, mastery, positive/ negative affect and social support. Confirmatory factor analysis found that all these factors grouped together, which lent support to the idea that they may all be related to a composite "resilience" dimension. 16 But these factors tend to be highly correlated with one another (i.e., similar in some ways, but different in others). Additional statistical analyses found that the best composite model of resilience was composed of a group of the Big Five personality traits, in addition to positive affect, mastery and social support.¹⁷ This study was a positive step toward an understanding of the characteristics that comprise resilience. But the study's design precluded making any assumptions about the overall nature of resilience, above and beyond the fact that these factors do hang together in a predictable way. Whether these are the right ones to include in a composite model of resilience still needs to be addressed; so does the understanding of the potential roles of biological and organizational factors.

MAKING THE CANADIAN ARMED FORCES MORE RESILIENT

Military leaders have always sought ways to enhance the performance of their service members. One of the most valuable tools they have developed is the notion of realistic training: those who train in a more realistic environment not only perform their job tasks better, but their judgment and decision-making process is also improved. Many have taken a potential leap of faith in assuming that realistic training also provides a form of long-term, psychological inoculation against the stressors inherent in those situations (i.e., that realistic job training protects members from the potential adverse psychological consequences of military experience). Unfortunately, the evidence for the preventative application of stress inoculation is weak. There is an appreciable short-term benefit to performance; nonetheless, researchers have yet to demonstrate any long-term advantages of realistic training to psychological resilience. Other strategies are required to promote and maintain psychological resilience in the context of the armed forces.

We mentioned before that the CAF and other militaries have been developing programs to increase and maintain psychological resilience in their personnel. Canadian Forces Health Services has recently created two initiatives. The first program was developed in 2006, as the CAF's mission in Afghanistan became more counterinsurgency-oriented. This initiative was the TLD Program in which personnel deployed to Afghanistan were routed to Cyprus on their way home. The bulk of TLD is rest and recreation (both structured and unstructured), with approximately four hours of mental health educational material (e.g., anger management, family reintegration) being provided mostly by clinical social workers and Personnel Selection Officers. Mental health professionals were also available for one-on-one consultations.

However, the TLD process was active only during formal changes in rotation. Members who left out of sync with the rotation cycle did not receive TLD. Because of the way the TLD program was rolled-out, it was also never subjected to a systematic program evaluation. That said, numerous assessments (i.e., surveys completed at TLD, via the HDO

Project, and through interviews done approximately six months after returning) have shown that members felt the TLD was valuable, and that it helped ease their reintegration process.²¹

The second initiative developed by the Canadian Forces Health Services was a mental health education training program (R2MR), which was rolled out in 2010 to members training for an Afghanistan deployment, and which is currently being integrated into the CAF training system. The program is designed in modules that provide CAF members with tools for coping with stress and promoting well-being. The R2MR program targets the full CAF career cycle, from recruit training to pre-deployment training to post-deployment reintegration and beyond. It also speaks to the whole CAF population (including those in leadership positions and CAF family members).

The R2MR program gives service members a better understanding of how stress and fear can manifest physically and psychologically. It also destigmatizes mental health problems and explains the continuum of mental health (including when additional help or support might be needed). The program's Psychological Toolbox (PT) contains strategies for coping with stress. The Mental Health Continuum Model (MHCM) and the PT are perhaps the most important parts of the program from a psychological resilience perspective.

The MHCM depicts psychological well-being flowing back and forth along a path, from green (healthy) to yellow (potential problems) to red (unhealthy). It offers advice on how a member can get back to green from yellow and to yellow from red. The PT contains four very effective psychological strategies for mitigating stress: (1) goal setting (SMART: Specific, Measurable, Attainable, Relevant, Time-bound goals); (2) mental rehearsal and visualization; (3) minimizing negative self-talk (ABCD: Activating event, irrational Beliefs, Consequences, Dispute irrational beliefs); and (4) arousal reduction using a diaphragmatic breathing technique.

Many of the components of the R2MR program have demonstrated clinical and scientific effectiveness in prior research (though in mostly

non-military samples). But it is important to determine whether they are indeed increasing psychological resilience in the military context. There is a reason for this. An individual has to practice many of the tools to become proficient at them. Becoming proficient requires additional personal practice and skill maintenance – in other words, it requires personal and institutional commitment. That means the effectiveness of the R2MR program has to be determined using rigorous scientific evaluation.

PSYCHOLOGICAL RESILIENCE AND THE HDO PROJECT

Over the years, HDO surveys²² have included several measures of social, psychological and organizational constructs that have been linked to enhanced resilience (e.g., general and operational stress, coping strategies, morale, cohesion, post-deployment reintegration experiences, psychological distress and symptoms of post-traumatic stress disorder). Regrettably, studying resilience using HDO surveys has presented some challenges. The biggest challenge is that the HDO Project was developed before the notion of psychological resilience gained prominence in the military psychology community. The second is the cross-sectional nature of the earlier HDO survey administrations. Although some methodological issues (e.g., independent members completing the pre-, mid- and post-deployment surveys, changes in context) have been addressed in recent HDO research, the number of personnel who actually fill out all three versions is still fairly low, limiting the types of analyses that can be conducted.

Nonetheless, the HDO Project excels in examining the impact of organizational resilience factors on psychological well-being, performance, and operational readiness. This is an area not explored in most current CAF mental health research or surveillance tools. The ability to link HDO survey data with other CAF data collection tools would be beneficial in further developing our understanding of resilience. But the challenges of data linkage may preclude this for the near future.²³

CONCLUDING REMARKS

Psychological resilience is an emerging area that has important implications for military personnel. But it is also a new field, so definitions

of resilience and how it works are still evolving. As with all scientific endeavours, it will take time. Meanwhile, military leaders need guidelines to better understand all the

Psychological resilience is important not only for those exposed to combat or deployment stressors, but also for non-deployed personnel who are experiencing the cumulative stress of life in military service. Hence, the goal should be to enhance the resilience of all service members — thereby enhancing the resilience of the whole organization.

resilience-related information they receive. The first thing military leaders should do is exercise some scepticism. Many people presume to know how to improve military resilience. But do they have rigorous, peer-reviewed scientific data to back up their claims? Second, leaders need to be supportive of attempts to scientifically validate new resilience training programs. This is often frustrating because the program evaluation process takes time to do well, which often conflicts with a leader's desire to immediately improve the well-being of his/her soldiers, sailors, airmen and airwomen. Third, psychological resilience is important not only for those exposed to combat or deployment stressors, but also for non-deployed personnel who are experiencing the cumulative stress of life in military service. Hence, the goal should be to enhance the resilience of all service members – thereby enhancing the resilience of the whole organization.

ENDNOTES

- G. A. Bonanno, "Loss, Trauma, and Human Resilience: Have We Underestimated the Human Capacity to Thrive After Extremely Aversive Events?" *American Psychologist* 59 (2004): 20–8.
- Jeffery L. Thomas, J. E. Wilk, L. A. Riviere, D. McGurk, C. A. Castro and C.W. Hoge, "Prevalence of Mental Health Problems and Functional Impairment Among Active Component and National Guard Soldiers 3 and 12 Months Following Combat in Iraq," *Archives of General Psychiatry* 67 (2010): 614–23.
- 3. The terms "researchers" and "clinicians" are use interchangeably in this chapter.
- Jaye S. Wald, S. Taylor, G. J. G. Asmundson, K. L. Jang, and J. Stapleton, Literature Review of Concepts: Psychological Resiliency, Contract Report CR 2006-073 (Toronto: Defence Research and Development Canada, 2006); Lisa S. Meredith, C. D. Sherbourne, S. Gaillot, L. Hansell, H. V. Ritschard, A. M. Parker, and G. Wrenn, Promoting Psychological Resilience in the U.S. Military (Santa Monica: RAND Corporation, 2011).
- The terms agreeableness, extraversion, openness to experience and neuroticism come from the Five Factor model (also known as the Big Five model) of personality. This model is a frequently used classificatory scheme for personality.
- 6. See Meredith et al., Promoting Psychological Resilience, for more definitions.
- Michelle M. Tugade and Barbara L. Fredrickson, "Resilient Individuals Use Positive Emotions to Bounce Back from Negative Emotional Experiences," *Journal* of Personality and Social Psychology 86 (2004): 320–33.
- 8. Kathryn M. Connor and J. R. T. Davidson, "Development of a New Resilience Scale: The Connor-Davidson Resilience Scale (CD-RISC)," *Depression and Anxiety* 18 (2003): 76–82.
- Suniya S. Luthar and Dante Cicchetti, "The Construct of Resilience: Implications for Interventions and Social Policies," *Development and Psychopathology* 12 (2000): 857–85.
- The PReVAiL group is a Canadian research network sponsored by the Canadian Institutes of Health Research (retrieved from www.prevailreseach.ca on August 15, 2012).
- 11. Ibid.
- 12. G. W. Casey Jr., "Comprehensive Soldier Fitness: A Vision for Psychological Fitness in the U.S. Army," *American Psychologist* 66 (2011): 1–3.
- 13. James C. Coyne and Howard Tennen, "Positive Psychology in Cancer Care: Bad Science, Exaggerated Claims, and Unproven Medicine," *Annals of Behavioral Medicine* 39 (2010): 16–26.

- 14. Several scales measure resilience as a single characteristic within the individual; e.g., the Connor-Davidson Resilience Scale [K. M. Connor and J. R. T. Davidson, "Development of a New Resilience Scale: The Connor-Davidson Resilience Scale (CD-RISC)," *Depression and Anxiety* 18 (2003): 76–82]; the Resilience Scale for Adults [O. Friborg, O. Hjmemdal, J. H. Rosenvinge, and M. Martinussen, "A New Rating Scale for Adult Resilience: What are the Central Protective Resources Behind Healthy Adjustment?" *International Journal of Methods in Psychiatric Research* 12 (2003): 65–76]; and the Resilience Scale in Gail M. Wagnild and Heather M. Young, "Development and Psychometric Validation of the Resilience Scale," *Journal of Nursing Measures* 1 (1993): 165–78.
- Lee, Jennifer E.C., Kerry A. Sudom and Donald R. McCreary. "Higher-Order Model of Resilience in the Canadian Forces," *Canadian Journal of Behavioural Science* 43 (2011): 222–34.
- 16. Ibid.
- 17. Ibid.
- James E. Driskell, Eduardo Salas, and Joan H. Johnston, "Decision Making and Performance Under Stress," in *Military Life: The Psychology of Serving in Peace and Combat, Vol. 1, Military Performance*, ed. T. W. Britt, A. Adler, and C. A. Castro (New York: Praeger, 2006), 128–54.
- 19. Megan M. Thompson and Donald R. McCreary, "Enhancing Mental Readiness in Military Personnel," in *Military Life: The Psychology of Serving in Peace and Combat,* Vol. 2, Operational Demands and Adjustment, ed. T. W. Britt, A. Adler and C. A. Castro (New York: Praeger, 2006), 54–79. For a different perspective on stress inoculation, see Chapter 4 of this publication.
- 20. Personnel Selection Officers are officers comprising the CAF's Personnel Selection (PSel) Branch. PSOs "provide behavioural science services to enable the [CAF] to effectively assess, acquire, integrate, and maintain personnel for operational and support roles." Their primary tasks "require the application of professional behavioural science knowledge and procedures in the assessment of people and human factors that affect working relationships." Canadian Forces, Personnel Selection Officer Fact Sheet, http://www.forces.ca/en/job/personnelselectionofficer-66#info-1.
- 21. Bryan G. Garber and Mark A. Zamorski, "Evaluation of a Third-Location Decompression Program for Canadian Forces Members Returning from Afghanistan," *Military Medicine* 177 (2012): 397–403; G. E. Sharpe, G. Dowler, G. Guillbault and A. English, "Perceptions of the Effectiveness of Third Location Decompression on Reducing Post-Deployment Reintegration Stress and Increasing Psychological Resiliency," Unpublished contractor's report, March 2007 (Toronto: Defence Research and Development Canada).

- 22. See Chapter 1 of this publication for a fuller account of the HDO surveys.
- 23. Because linking data collected from the same person on different surveys requires the participant's consent, there is the potential for some people to opt out of the process, thereby reducing the representativeness of the overall sample and the ability to formulate relevant conclusions.

CHAPTER 4:

CAN WE PREPARE SOLDIERS FOR CAPTIVITY? THE APPLICATION OF STRESS INOCULATION TRAINING

Cindy Suurd Ralph

The goal of combat training is success in combat. Training that prepares soldiers for captivity constitutes a small component of combat training, but it is a vital component. Realistic training for captivity, in particular seems to increase a service member's motivation for evasion, resistance, and escape¹ because it can increase the meaningfulness of that training for soldiers and prepare them for battlefield conditions.² Moreover, realistic captivity training seems to enhance overall readiness. The 1956 Working Group on Survival Training (WGonST)³ claimed that scientific evidence pointed to the fear of the unknown as a greater threat to operational effectiveness than a realistic knowledge of actual danger. This assertion is still accepted and continues to be supported by research. Preparatory experience can provide soldiers with a greater sense of predictability and control, which has been found to enhance performance under stress.⁴

This chapter provides an overview of the underlying rationale and methods used in Canadian Armed Forces training in the area of Conduct After Capture (CAC).⁵ CAC training is designed to prepare soldiers to resist exploitation by enemy captors and to survive captivity with honour, and in accordance with the CAF's Code of CAC.⁶

TRAINING IN CONDUCT AFTER CAPTURE

Captivity can take a number of forms: being held as a prisoner of war (PW), being detained by a foreign government or being held hostage. Members do not always recognize that they have been detained in the technical sense of the word (e.g., short detentions at the hands of foreign governments or by hostage takers). As a result, there is limited published research on the actual frequency of captivity events in the military context. Still, the likelihood of soldiers, sailors, and air personnel being taken captive is relatively low, though not insignificant. A 1997 study of Dutch peacekeepers, for example, found that 8%-10% of soldiers reported being held hostage by one of the conflicting parties in Bosnia-Herzegovina.⁷

Even if high-risk situations are rare, it is important to train for them.⁸ The Department of National Defence has a duty to care for personnel deploying on operations, which includes training for the risk of being taken captive. To be sure, captivity is a rare event. But the fear of being captured is a common experience. Recognizing that the fear of the unknown can affect performance, militaries have offered training designed to increase a service member's ability to survive captivity. This training is believed to increase operational readiness by removing a potential deterrent to performance.

The development of modern CAC training was spurred by U.S. military PWs repatriated from Vietnam. Before the Vietnam War, soldiers, sailors and air personnel were merely given a set of guidelines under which to operate (i.e., Code of CAC). As a result of American PWs' experiences in Vietnamese custody, the U.S. developed a new training program, which featured a practical training environment, where soldiers could learn to apply their CAC training. The three main objectives of survival training from the 1956 WGonST became the focus of the new program: (1) to dispel fear of the unknown by describing all known enemy captors' techniques; (2) to provide detailed understanding of various pressures known to influence captives' will to survive; and (3) to introduce the knowledge, attitudes and skills that captives could use to relieve the pressures of the captivity situation. ¹⁰

The CAF's Code of CAC was published in 2000.¹¹ Three levels of training have emerged from it, each based on the requirements of the particular CAF member: (1) general indoctrination (for all CAF members); (2) mission-specific indoctrination; and (3) and high-benefit/high-risk training. The focus of this chapter will be on high-benefit/high-risk training, which is designed "for members whose capture or detention and subsequent exploitation could yield significant advantages to the enemy and compromise or embarrass friendly interests."¹² The psychological foundation for this type of CAC training is referred to as stress inoculation training (SIT).

STRESS INOCULATION TRAINING

Stress inoculation training is analogous to building a tolerance to a toxic substance, where an individual is exposed to a smaller amount of the toxic substance that the body can defeat. This strengthens the body's resistance to larger amounts of the toxin. Similarly, SIT exposes trainees to captivity stressors on the assumption that actual captivity will be less challenging to members who have successfully experienced a previous controlled exposure. SIT assumes that exposing people to demanding and stressful situations can be beneficial if they have been provided with the skills to respond to the challenges they will potentially face.¹³ In short, the stress inoculation approach used in CAC training aims to mitigate the negative effects of captivity stressors by training soldiers prior to their exposure to this type of stress.¹⁴

Stress inoculation training is supported by evidence suggesting that the successful performance of a task can improve an individual's sense of personal effectiveness. Once an individual succeeds at a task, their sense of self-efficacy grows stronger, and they are more willing to endure in the face of obstacles. In addition, studies have shown that SIT is effective in reducing state anxiety, frequency skill-specific anxiety and enhancing performance under stress. The rather controlled training environment provides opportunities for trainees to build psychological resilience, defined here as "the process of adapting well in the face of adversity, trauma, tragedy, threats or even significant sources of stress," which means "bouncing back' from difficult experiences." SIT thus promotes resilience by exposing members to stimuli that are strong enough to arouse their defences, without being so powerful as to overwhelm them, allowing them to bounce back from the challenge. In the next three sections, we look at the three phases of CAC training.

The Conceptualization or Educational Phase

Stress inoculation training consists of three phases that can be customized to the stressor for which the trainee must prepare. For CAC training in the CAF, the first phase presents trainees with knowledge that helps them

visualize a potential capture scenario. Phase one also considers students' natural reactions to stressful events and how these reactions can benefit or work against them in a captivity environment.

The Skill Acquisition and Rehearsal Phase

The second phase involves skill acquisition and rehearsal. Trainees develop and practice skills for stress management. They are provided information

"I also elaborated projects in my head, the more complicated the better, like planning and building my own house in the most minute detail. Attempting to formulate a demand/supply curve for my own imaginary business, working the whole thing out in my head, was an intellectual challenge... I made up recipes, the weirdest combinations... when I ran out of things to think about, I prayed. This surprised me: I call myself an agnostic...but prayer gave me immense strength."

about coping strategies that they can use when confronted with stress. The coping strategies are usually grouped into arousal reduction, 20 cognitive coping skills, 21 and the use of faith and prayer. 22 John Nichols, a

British pilot held in captivity during the first Gulf War, described his use of these techniques as follows: "I also elaborated projects in my head, the more complicated the better, like planning and building my own house in the most minute detail. Attempting to formulate a demand/supply curve for my own imaginary business, working the whole thing out in my head, was an intellectual challenge... I made up recipes, the weirdest combinations... when I ran out of things to think about, I prayed. This surprised me: I call myself an agnostic...but prayer gave me immense strength."²³ The goal is for trainees to master the techniques in a low-stress, low-realism environment, so that they can apply the techniques during the practical training scenario.²⁴

The Application and Follow-through Phase

In the third phase, trainees apply the coping skills previously learned and practiced. This phase requires exposing trainees to a stressful environment that has elements of realism, including unpleasant and sometimes austere conditions. Potential stressors can be physical, psychological and environmental. Stress inoculation works best when trainees are exposed

to gradual increments of stress with discrete recovery periods between exposures.²⁵

Since stress inoculation produces success through gradual mastery, trainees are presented with challenges they can be expected to achieve with the skills they have been taught. Captivity situations are controlled to increase trainees' confidence in their ability to face real-world stressors. Varying the settings and situations in which students are exposed to stress can also improve the trainee's tolerance of stress across a range of stressors. In short, stressors should be intense enough to guide the interpretation of subsequent real-world events, but not so intense as to cause long-term problems for trainees.

Stress inoculation has a number of positive outcomes for both trainees and the CAF. First, situations that may have initially caused fear and anxiety in trainees may be seen as less threatening once the training is completed (a process known as desensitization). Thus, trainees should find themselves

less taxed by the stress they encounter, making them more resistant to the sources of stress they may face. Second, trainees

Stressors should be intense enough to guide the interpretation of subsequent real-world events, but not so intense as to cause long-term problems for trainees.

are better able to handle the aftermath of the stress they experience; they can use the coping strategies they have learned to reshape the way they process information. Finally, after the training is completed, trainees are expected to become more confident in their ability to face the challenges of captivity.²⁶

Recent research has lent some support to the effectiveness of the CAF's CAC training program.²⁷ CAF personnel who had recently returned from operations in Kandahar, Afghanistan in 2010 were asked to reflect on their CAC training experiences. As expected, those who had received some form of CAC training were more familiar with CAC procedures than those who had not received any training. There was a more significant finding, however, for those who had received some CAC training specifically, their confidence in operations and familiarity with CAC procedures increased with the level of CAC training they had received. In other words, those

who had received enhanced CAC training – which included practical application training in a captivity scenario – felt better prepared for military operations and a real-world captivity situation than those who had received minimal CAC training. This finding highlights the benefits of realism in training.

REALISM IN TRAINING

The benefits of realistic training – also known by the "train as we intend to fight" doctrine – have been well documented in the literature: soldiers trained in realistic conditions perform better under stress. Done explanation is that soldiers can better recall the information they need when the environment experienced during training matches the context in which they are fighting. Moreover, evidence suggests that learning skills to be applied during stressful situations in the absence of any stressors do produce good skill performance in training. But it results in poor skill performance when trainees face the operational stressors. It has also been found that the level of performance reached in training could be maintained in a real-world event if training simulates the intensity of real stressors. In light of the importance of realism in training, members expected to cope with stress on the battlefield (or in captivity) should face some element of stress in training.

The objective of realistic training is to maximize training effectiveness without compromising the well-being of the members subjected to it. Striking a balance between realism and the safety of trainees is therefore crucial when designing realistic training using SIT. Creating realism in captivity training, after all, does require a degree of hardship for the trainees (e.g., deprivation and confinement). Training must be realistic enough that the trainees confront typical experiences involved in captivity, without causing actual physical or mental harm. Obviously, this places limits on the amount of realism involved in captivity training.

All the same, the aim is to provide trainees with feedback and practice. Typically, training events are presented as a series of increasingly demanding challenges that the trainees must master. Succeeding in progressively more difficult training scenarios gives them the assurance they need to perform

well under adverse conditions, which in turn gives them the confidence to carry out their missions.

DOES THIS TYPE OF TRAINING WORK?

Evidence suggests that realistic captivity training does work. A study of Royal Norwegian Naval Academy Cadets (RNNA-C) reported fewer stress reactions and better coping strategies when they knew that captivity would be a part of their training exercise.³² Foreknowledge might have provided a mental representation through which the trainees were able to interpret their training experiences. Similarly, in a different study of RNNA-C, trainees who were provided with practical training in resisting interrogation performed better during direct and indirect interrogations than those who had received lectures and demonstrations alone.³³ Even though the mock-interrogators did not know which trainees had previous practical training, they selected trainees without practical training for longer mock interrogations (i.e., more than twice as long as their practically trained counterparts). In addition, cadets without practical training made significantly more compromising statements than cadets with practical training. Mock interrogators may have chosen trainees without practical training for longer interrogations because the pre-trained group was found to be less likely to provide useful information. Cadets with pre-training were also rated as having coped better with stress through both self-reporting and trainers' reports. These studies suggests that practical training has beneficial outcomes for military forces, because trained members seem to be able to protect information – that is, they are less likely to make statements that could compromise national interests.

Studies on real world events also show that individuals can psychologically prepare for the hardships of captivity. Political activists and non-activists who were held captive and subjected to torture, for example, were compared on validated measures of trauma, anxiety and depression. Activists showed fewer long-term symptoms than non-activists, even when they were subjected to more severe trauma and longer periods of detention. A possible explanation is that activists were more aware of what to expect at the hands of their captors and were thus better prepared to deal with the captivity

situation. In addition, it seems that their previous detention experience had provided a measure of inoculation; previous detention experience had given them practice in mental and physical stoicism during repeated exposure to various stressors. Taken together, these factors may have contributed to an increased psychological preparedness prior to captivity.³⁵

Firsthand reports of repatriated U.S. service members also indicate that their experiential training helped them survive captivity. This is consistent with research on the ability of individuals to respond to emergencies and disasters. For those who have practiced the appropriate response to a threat, the otherwise complex thought processes required to take action are translated into immediate reactions. In addition, comparisons of repatriated U.S. PWs from the Vietnam era suggest that being prepared for captivity provided members with a protective factor (i.e., a "buffer") that promoted resilience in the face of intense and extended hardship. Researchers credit some of this preparedness to the realistic stressinducing exercise that was part of the PWs' Survival, Evasion, Resistance and Escape training. Researchers credit some of the PWs' Survival, Evasion, Resistance

CONCLUDING REMARKS

The potential value of SIT for CAF members might be best encapsulated in the adage "an ounce of prevention is worth a pound of cure." Preparing our soldiers, sailors and air personnel for the challenges they can encounter on operations involves many different types of training. For those at the highest risk of isolation and exploitation, stress inoculation training for

For those at the highest risk of isolation and exploitation, stress inoculation training for CAC allows for habituation to stressors, increased predictability of potential stressors, and a reduction in both negative physiological and psychological reactions.

CAC allows for habituation to stressors, increased predictability of potential stressors, and a reduction in both negative physiological

and psychological reactions.³⁹ This type of training should be seen as an additional layer of personal armour that will help protect and enhance soldiers' robustness and survivability, help protect Canadian security interests and, ultimately, provide a significant capability enhancement to our armed forces.

ENDNOTES

- The definition comes from Headquarters Air Force Personnel and Training Research Center, Report of the Working Group on Survival Training (Lackland Air Force Base, Texas: Air Research and Development Command, 1956). See also G. Walker-Smith and A. Feggetter, "The Right to Survive – A Human Right?" Journal of Defence Science 6, no. 3 (2001): 46–7.
- G. Fuentes, "Upgrades Bring Realism to Training." Military Times, August 14, 2010. Available at http://www.militarytimes.com/news/2010/08/upgradesbring-realism-081410w/.
- 3. Headquarters Air Force Personnel, Report of the Working Group.
- C. M. Inzana, J. Driskell, E. Salas, and J. H. Johnston, "Effects of Preparatory Information on Enhancing Performance under Stress," *Journal of Applied Psychology* 81 (1996): 429–35.
- 5. Also referred to as Resistance or Resistance to Interrogation training; a part of the Survival, Evasion, Resistance and Escape (SERE) training program.
- 6. Department of National Defence, *The Code of Conduct After Capture for the Canadian Forces* (Ottawa: Department of National Defence, 2004).
- A. Flach and A. Zijlmans, "Psychological Consequences of Being Taken Hostage During Peace Operations," in *Netherlands Annual Review of Military Studies*, eds. J. L. Soeters and J. H. Rovers (The Hague: Royal Netherlands Academy, 1997), 141–51.
- 8. Walker-Smith and Feggetter, "The Right to Survive," 47.
- 9. B. Engdahl and J. A. Fairbank, "Former Prisoners of War: Highlights of Empirical Research," in *The Mental Health Consequences of Torture*, eds. E. Gerrity, T. M. Keane and F. Tuma (Dordrecht: Kluwer Academic, 2001), 133–5.
- 10. Walker-Smith and Feggetter, "The Right to Survive," 46-7.
- Department of National Defence, The Code of Conduct After Capture for the Canadian Forces.
- 12. Ibid.
- 13. D. Meichenbaum, Stress Inoculation Training (New York: Pergamon, 1985).
- M. Stetz, M. Thomas, M. Russo, T. Stetz, R. Widzunas, J. McDonald, B. Wiederhold, and J. Romano, "Stress, Mental Health and Cognition: A Brief Review of Relationships and Countermeasures," *Aviation, Space and Environmental Medicine* 78, no. 5 (2007): 252–60.
- 15. A. Bandura, Social Learning Theory (Englewood Cliffs: Prentice Hall, 1977).

- 16. State anxiety refers to the amount of anxiety individuals feel at the time of assessment. It is often contrasted with trait anxiety, which refers to how much anxiety an individual generally feels. See C. D. Spielberger, R. L. Gorsuch, R. Lushene, P. R. Vagg, and G. A. Jacobs, *Manual for the State-Trait Anxiety Inventory* (Palo Alto, CA: Consulting Psychologists Press, 1983).
- J. Driskell and B. Mullen, Simulation and Training for Stress Environments: A Meta-Analytic and Experimental Evaluation, ARI Research Note 95–38 (Ft. Belvoir, VA: United States Army Research Institute for the Behavioral and Social Sciences, 1995).
- For a different perspective on psychological resilience, see Chapter 3 of this publication.
- 19. American Psychological Association, "The Road to Resilience Handout," http://www.apa.org/helpcenter/road-resilience.aspx#.
- 20. Arousal reduction includes several techniques. Controlled breathing exercises, for example, can affect stress levels, blood pressure, digestion, circulation, heart rate and other involuntary health factors. See D. Rakel, Integrative Medicine (Philadelphia: Saunders, 2002). Progressive muscle relaxation is a technique for reducing arousal by alternately tensing and relaxing muscles. See E. Jacobson, Progressive Relaxation (Chicago: University of Chicago P, 1938). Meditation and visualization strategies refers to a broad variety of practices, ranging from techniques designed to promote relaxation to exercises performed with a more far-reaching goal such as a heightened sense of well-being. See A. Lutz, H. Slagter, J. Dunne, and R. Davidson, "Attention Regulation and Monitoring in Meditation," Trends in Cognitive Sciences 12, no. 4 (2008): 163–9.
- 21. Cognitive coping skills include several techniques. Cognitive restructuring of events attempts to strengthen the trainee's belief that (1) "self-talk" can influence performance and that (2) self-defeating thoughts or negative self-statements can cause emotional distress and interfere with performance a process that then repeats in a cycle. See S. Taylor, S. Woody, W. Koch, P. McLean, R. Paterson, and K. Anderson, "Cognitive Restructuring in the Treatment of Social Phobia," Behavior Modification 21 (1997): 487–511. Self-talk is one's internal dialogue. Positive self-talk has been credited with helping athletes achieve their best in competition, but is also relevant to every day life. See R. Knowles, "Positive Self-Talk," American Journal of Nursing 81, no. 3 (1981): 535. Learning to keep an active mind or engage in mental distraction is another technique see M. Linehan, Skills Training Manual for Treating Borderline Personality Disorder (New York: Guilford Press, 1993).
- C. Ford and R. Spaulding, "The Pueblo Incident: A Comparison of Factors Related to Coping with Extreme Stress," Archives of General Psychiatry 29 (1973): 340–3.

- 23. J. Peters and J. Nichol, Tornado Down (London: Penguin, 1992).
- D. Meichenbaum and J. Deffenbacher, "Stress Inoculation Training," The Counselling Psychologist 16, no. 1 (1988): 69–90.
- 25. Meichenbaum, Stress Inoculation Training.
- Mitchell, J. "Bullet Background Paper on Scientific Basis for Resistance Training" (unpublished manuscript, 1995).
- 27. See G. W. Ivey, Human Dimensions of Operations: Conduct-After-Capture Training, Assessment Phase II, Task Outcome Report (Ottawa, ON, Canada: The Technical Cooperation Program, 2011); G. W. Ivey, Human Dimensions of Operations: Conduct-After-Capture Training, Assessment Phase III, Task Outcome Report (Ottawa, ON, Canada: The Technical Cooperation Program, 2012).
- 28. Directorate of Army Training, "From the Directorate of Army Training: Redefining Army Training," *The Army Doctrine and Training Bulletin* 3, no. 1 (2000): 12–6.
- C. Morgan III, S. Wang, A. Rasmusson, G. Hazlatt, G. Anderson, and D. Charney.
 "Relationship among Plasma Cortisol, Catecholamines, Neuropeptied Y, and Human Performance during Exposure to Uncontrollable Stress." *Psychosomatic Medicine* 63 (2001): 412–22.
- 30. S. Smith and E. Vela, "Environmental Context-Dependent Memory: A Review and Meta-Analysis," *Psychonomic Bulletin & Review* 8, no. 2 (2001): 203–20.
- 31. N. Friedland and G. Keinan, "Training Effective Performance in Stressful Situations: Three Approaches and Implications for Combat Training," *Military Psychology* 4, no. 3 (1992): 157–74.
- 32. J. Eid, W. Brun, J. C. Laberg, and B. H. Johnsen, "Participating in Prisoner-of-War Exercise: Stress Reactions and Coping" (paper presented at the 34th International Applied Military Symposium, Paris, May 25–28, 1998).
- 33. J. C. Laberg, J. Eid, B. J., Johnsen, B. Ericksen, and K. Zachariassen, "Coping with Interrogations," in *The Human in Command: Exploring the Modern Military Experience*, eds. C. McCann and R. Pigeau (New York: Academic/Plenum, 2000), 333–44.
- M. Basoglu, S. Mineka, M. Paker, T. Aker, M. Livanou, and S. Gok, "Psychological Preparedness for Trauma as a Protective Factor in Survivors of Torture," *Psychological Medicine* 27 (1997): 1421–33.
- 35. Basoglu et al., "Psychological Preparedness," 1421-33.
- A. P. Doran, G. Hoyt, and C. Morgan III, "Survival, Evasion, Resistance and Escape (SERE) Training: Preparing Military Members for the Demands of Captivity," in *Military Psychology Clinical and Operational Applications*, eds. C. Kennedy and E. Zillmer (New York: The Guilford Press, 2006), 241–61.

- 37. J. Leach, "Why People 'Freeze' in an Emergency: Temporal and Cognitive Constraints on Survival Responses," *Aviation, Space and Environmental Medicine* 75, no. 6 (2004): 539–42.
- 38. L. King, D. King, J. Schuster, C. Park, J. Moore, D. Kaloupek, and T. Keane, "Captivity Stressors and Mental Health Consequences among Repatriated U.S. Navy, Army, and Marine Vietnam-era Prisoners of War," *Psychological Trauma: Theory, Research, Practice and Policy* 3, no. 4 (2011): 412–20.
- 39. Stetz et al., "Stress, Mental Health and Cognition," 252-60.

CHAPTER 5:

BATTLEFIELD ETHICS: WHAT INFLUENCES ETHICAL BEHAVIOUR ON OPERATIONS?

Deanna L. Messervey and Jennifer M. Peach

Captain Robert Semrau was convicted of disgraceful conduct and released from the Canadian Armed Forces for shooting an injured member of the Taliban. He wrote a book based on his experiences in Afghanistan, *The Taliban Don't Wave*. In the foreword to the book, retired Major-General Lewis Mackenzie is quoted saying,

When a soldier is faced with a similar situation in some far flung battlefield in the future, and has those 10 seconds to reach a decision, no regulation nor memory or knowledge of Captain Rob Semrau's court martial will spring to mind. It will be his or her own moral code that will dictate their response—nothing more, nothing less.²

We agree with Mackenzie that an individual's moral code will inform his/her decisions on the battlefield. But we show in this chapter that an individual's moral code is far from the only factor that shapes an individual's decisions on the battlefield. Research has shown that an individual's split-second decisions can be influenced by strong situational cues, and that these situational cues are as important as an individual's moral code in predicting ethical and unethical actions on the battlefield. In fact, the power of a situation to override an individual's considered judgement has been well-documented in the psychological literature.³ It has been suggested that teaching individuals to be aware of the situational pressures that lead to acting unethically makes them better able to resist such pressures in real-world situations.⁴

In this chapter, therefore, we identify several factors that can influence whether or not somebody will actually behave in a way that is consistent with their ethical beliefs in combat. Next, we explain the seven conditions that can influence moral attitudes and conduct on the battlefield – namely, stress, surprise/shock, anger, anonymity, crowds, loyalty to fellow soldiers in battle and obedience – and the role that each can play in encouraging

unethical behaviours. We follow this with recommended strategies for counteracting each of these conditions of combat that can be incorporated into ethical training. Finally, we discuss a method for evaluating the effectiveness of ethics training that is based in psychological research. We begin by reviewing the psychological and strategic reasons for acting ethically on operations.

WHY BE ETHICAL ON OPERATIONS?

There are both personal and strategic reasons to be ethical in operations. From a personal standpoint, research shows that perpetrating an unethical act can cause operational stress injuries (OSI), such as depression and PTSD.⁵ Even witnesses to unethical acts can suffer psychological harm.⁶

From a strategic standpoint, unethical acts in operations undermine public support for the CAF,⁷ since the Canadian public expects its soldiers, sailors,

A single unethical act can cause lasting harm to the actor, their brothers and sisters in arms, and the mission itself.

airmen and airwomen to reflect Canadian values.⁸ At the same time, unethical

acts committed on the battlefield – such as the humiliation of an enemy combatant – can increase rates of terrorism or resistance among the humiliated population. "Perceived national humiliation" can give "rise to desperation and uncontrollable rage. Terrorist leaders have learned to harness this sense of outrage to encourage youth to murder...civilians, creating a vicious cycle of atrocities on both sides." Thus, a single unethical act can cause lasting harm to the actor, their brothers and sisters in arms, and the mission itself.

UNDERSTANDING WHY PEOPLE BEHAVE ETHICALLY FROM A PSYCHOLOGICAL PERSPECTIVE

According to the *Guidelines for Defence Ethics Training* published by the CAF's Defence Ethics Programme, applied or practical ethics "involves the application of personal and organizational values to situations that range from the fairly simple to the very complex." In other words, ethicists teach soldiers "what *ought* to be done." Our approach to ethics training is

different, yet complementary. Drawing on moral psychology¹² and applied social psychology,¹³ we examine the situational factors that affect soldiers' thought processes in combat and how these factors can affect soldiers' ethical decisions. We also study strategies for overcoming these factors. It is important to recognize that we focus on how situational factors influence *normal* patterns of behaviour, rather than psychological dysfunction or mental disorders that lead to abnormal behaviour.¹⁴

The Role of Combat Exposure

Combat exposure appears to be a risk factor for unethical behaviour. In a study published in the *Lancet*, for example, researchers found that American soldiers that had experienced high levels of combat exposure were more likely than American soldiers that had experienced low levels of exposure to report the mistreating of non-combatants. ¹⁵ Other research showed that American soldiers that had handled dead bodies were more likely than those who had not to unnecessarily physically hit a non-combatant. ¹⁶ The impact of combat exposure on ethical behaviour likely works through psychological distress, which is related to PTSD. ¹⁷ Taken together, these findings suggest that combat exposure is a risk factor for unethical attitudes and unethical behaviour.

The Role of Stress

Combat is a highly stressful experience. Research has shown that stress makes it difficult to learn new information and to remember previously learned information. Stress impairs an individual's ability to engage in deliberate and rational thinking (e.g., taking a test on material that was learned earlier), but does not appear to influence automatic behaviours (e.g., well-formed habits). Stress can also impair an individual's ability to process information, which means that the stress of battle may impair an individual's ability to remember previously learned information. Research also finds that people remember more information when they are asked to recall it in the same context in which they learned it, which means that information learned in a calm training environment may be difficult to remember later in a stressful operational environment. Not only does stress make it difficult to learn and

remember information, stress has been shown to increase the likelihood that an individual will engage in unethical behaviour.²¹

If soldiers generally need to make ethical decisions under extremely stressful situations where their hearts are racing and their cognitive ability is limited, then soldiers may not know what to do. Their emotions and the situational cues on the battlefield may be more powerful predictors of what soldiers believe they should do than ethical principles that were learned in non-combat learning situations. When learning is implemented in a way that is consistent with how behaviour is carried out, training programs may be more effective.²²

The Role of Surprise

Situational factors can overpower individual preferences and intentions.²³ When people are surprised by an event, it can interfere with how they process information. People may feel surprised and inhibited in the face of an unethical event, which might lead to feelings of conflict between doing what one believes to be morally right and what one thinks is acceptable by others.²⁴ For example, when Canadian Airborne Regiment peacekeepers beat a 16-year-old Somali to death, on March 16, 1993, for stealing from the Canadian compound, other members of the Regiment did not intervene.²⁵ When asked why they had failed to intervene, some soldiers stated that they were "shocked and confused."²⁶ Likewise, American soldiers felt "confused" when their commander, Lieutenant William Calley, ordered them to kill non-combatants, including women and children, in the village of My Lai during the Vietnam War.²⁷ This surprise may have made them more susceptible to situational cues, such as the unethical actions of their comrades or unlawful orders.

Stress inoculation training may assist individuals in coping with surprising situations in combat. Such training allows individuals to develop techniques for coping with the stress of combat by exposing them to stressful situations. ²⁸ Stress inoculation training often involves three phases: education on stress responses, training that teaches techniques to mitigate the negative effect of stress and the implementation of these techniques in a stressful context. ²⁹

The Role of Anger

Anger has contributed to many instances of military personnel acting unethically in recent history. The *Report of the Somalia Commission of Inquiry*³⁰ describes the conditions surrounding the beating death of a Somali youth discussed in the previous section. It describes:

Many of the troops had been in Somalia for almost three months. Some were discouraged about the mission and its seeming futility, and many were feeling the effects of hard rations, illness, and the limited opportunities for communication with their families. Repeated incursions into the Canadian compounds and nuisance thefts of equipment and supplies added to the troops' resentment of the local population.³¹

Similarly, anger seems to have been a contributing factor in explaining why American soldiers killed non-combatants in the village of My Lai, in which "on the eve of the massacre, another comrade had been blown up by a VC [Viet Cong] booby-trap."32 Iraqi civilians in Haditha "insist the Marines were screaming in anger when they stormed the houses and...gunned down children, women and an elderly man in a wheelchair, knowing that they posed no threat."33 According to the New York Times, the civilians in Haditha were killed by marines who were angry because somebody from their unit had been killed while on patrol in the area.³⁴ Anger also played a role at the Abu Ghraib prison. Sergeant Javal Davis said that a prisoner hitting a female member of the military police in the face with a cinder block triggered the anger he experienced when he stepped on the hands and feet of a group of prisoners. 35 Likewise, Specialist Roman Krol reported that "Abu Ghraib was mortared almost everyday. People would die in there so my frustration level was pretty high. When I heard that detainees had raped a little boy, I completely went nuts."36

Empirical studies show that anger contributes to unethical conduct. One study revealed that American soldiers and marines who felt angry were significantly more likely than American soldiers and marines who did not feel angry to report mistreating non-combatants, and American soldiers who had lost a fellow soldier in combat were more likely than those who

had not to insult or curse non-combatants and to unnecessarily damage Iraqi property.³⁷ Clearly, anger is a risk factor for unethical behaviour.

Militaries can teach soldiers techniques to use to cope with this anger. For example, the U.S. Army Research Combat Stress Control team deployed to Afghanistan taught soldiers how to identify angry thoughts and to think "more realistically and optimistically." They also taught soldiers how to carry out progressive relaxation techniques, such as deep breathing, and strategies to cope with anger (e.g., count to ten, time out).

Psychologists have found that teaching individuals how to evaluate events in a less hostile way, how to infer the causes of other people's behaviour in less hostile ways, how to challenge their own unrealistic beliefs, how to solve their problems in a more effective manner, and how to identify distorted beliefs that promote feelings of anger were all effective ways of lowering anger levels.³⁹ Moreover, psychologists have also found that anger interventions that teach people how to relax are effective at reducing anger.⁴⁰ CAF members are taught some relaxation techniques in their Road to Mental Readiness training.⁴¹

The Role of Anonymity

When people feel anonymous and unaccountable for their actions, they are at risk of acting aggressively and unethically.⁴² Instead of focusing on their personal identity, individuals who feel anonymous may instead focus on situational cues. If others are acting unethically, a feeling of anonymity may lead individuals to go along with others and also act unethically.⁴³ For example, Robert Watson, an anthropologist, found that cultures where warriors change their appearance (e.g., through masks or face painting) were more likely to produce warriors who kill, torture or mutilate their enemies than cultures where warriors do not change their appearance.⁴⁴

The Role of Crowds

Research suggests that individuals who are part of a crowd may be reluctant to engage in ethical acts, such as intervening when someone is attacked. Individuals in crowds can succumb to pluralistic ignorance, in which their

behaviour is identical to others, and they falsely assume that the thoughts and feelings they are experiencing are different from other bystanders' internal states. ⁴⁵ For example, imagine that members of a platoon witness a fellow soldier commit an unethical act, like kicking a corpse, and that nobody in the platoon stops this misconduct. Each soldier may falsely believe he/she is the only person in the platoon who thinks the fellow soldier's unethical act is wrong, even though everyone is responding in the same way by not taking action. It has been suggested that this bystander effect may have been a contributing factor to the killing of Shidane Arone in Somalia by Canadian soldiers. ⁴⁶

Individuals are more likely to take action in a crowd if they have previously taken responsibility to act in that situation. For example, training programs that teach people how to intervene to prevent sexual assault functions partially by teaching individuals to take responsibility for acting in situations where someone might be sexually assaulted, even if they may feel foolish acting in front of others. ⁴⁷ Programs used by the U.S. military may have had a similar impact. ⁴⁸ Some bystander intervention programs actively involve the trainees through role-playing intervention techniques they may need in the future. ⁴⁹ These active training techniques are more effective than lectures in changing later behaviour. ⁵⁰ Making soldiers aware of the potential impact of crowds on their behaviour ahead of time, and simulating acting in front of crowds, can help them take action when faced with an ethical dilemma in the future.

The Role of In-group Loyalty

Some individuals believe that loyalty to in-group members is a moral obligation,⁵¹ which may influence their ethical decision-making. Military researchers have also suggested that in-group loyalty can play a role in unethical actions. For example, Winslow⁵² suggests that in-group loyalty played a contributing role in the Somalia incident, and Bradley⁵³ suggests that in-group loyalty continues to play a role in unethical conduct by soldiers in more recent conflicts. Even though soldiers have a responsibility to report ethical infractions committed by fellow soldiers, research shows that people may be more likely to intervene than to report such unethical behaviour.⁵⁴

This may be because intervening to prevent unethical behaviour does not undermine in-group loyalty as much as reporting does.⁵⁵

The Role of Obedience

The need to obey the orders of people who hold positions of legitimate authority is viewed as a moral issue by some people.⁵⁶ Military training demands that soldiers follow orders. Soldiers follow orders so frequently that obeying commands likely becomes automatic.⁵⁷ Research shows that individuals can follow unethical orders under the right conditions. Milgram's classic experiment on obedience, for example, examined the extent to which individuals would engage in unethical behaviour at the request of an authority figure.⁵⁸ Participants of the study were directed to a laboratory at an Ivy League university where they were met by two men. The first was a stern-looking experimenter dressed in a white lab coat and the other was a confederate (a member of the reasearch team, but pretending to be a participant). The real participant was assigned the task of being a teacher and the confederate was assigned the task of being the learner. The participant was informed that he needed to test the learner's memory and to deliver a shock of escalating intensity every time the learner gave the wrong answer (in reality, the confederate was not shocked). The surprising result of the experiment was that every participant continued to deliver shocks to the learner at the prodding of the experimenter, even after the learner complained of heart trouble and begged for the experiment to stop. Moreover, 65% of participants delivered the maximum intensity shock.

Burger later replicated Milgram's findings,⁵⁹ reporting that individuals today can still follow orders to administer shocks to a learner. Although individuals who were more empathetic toward others protested administering the shocks, they did not differ in their level of obedience from individuals who had low levels of empathy. This result suggests that situational factors can override one's moral compass.

In one obedience study, Hofling and colleagues conducted a real-life study on a sample of nurses.⁶⁰ A doctor unknown to the nurses called on the telephone and asked them to administer dangerous levels of a drug to

patients. (In this study, an observer stopped the nurses from administering the drug at the last moment.) Ninety-five percent of nurses obeyed the doctor's orders, even though the nurses did not know the doctor, the prescribed dose was twice the recommended dosage, and nursing regulations required paperwork signed by a medical doctor to administer unscheduled medications.

The Role of Ambiguity

Stress accentuates the need to obey authority.⁶¹ Classic psychology experiments on authority, such as the Stanford Prison Experiment⁶² and Milgram's obedience studies,⁶³ provide further support for the assertion that stress is closely associated with increased levels of obedience to authority. In a combat situation, soldiers may find the prospect of challenging unlawful authority overwhelming, unless they have been trained to do so under stressful conditions.

Crimes of obedience often begin with orders from legitimate authorities that are vague, which may then become more specific as they are passed down the chain of command.⁶⁴ In Somalia, for example, the Canadian Airborne Regiment commander told soldiers the night before a Somali was killed that they needed to get "more aggressive" with intruders.⁶⁵ Kelman and Hamilton cite the My Lai massacre as an example of vague orders playing a role in unethical action. They also show how these vague orders became more specific as they were passed down the chain of command.

Apparently no written orders were ever issued. Barker's superior, Col. Oran Henderson, arrived at the staging point the day before. Among the issues he reviewed with the assembled officers were some of the weaknesses of prior operations by their units, including their failure to be appropriately aggressive in pursuit of the enemy.⁶⁶

Kenneth Hodges, who was squad leader in Charlie Company and who participated in the shooting of unarmed civilians, is quoted as saying, "I remember Capt. Ernest Medina saying we would get revenge for our fallen comrades." According to some soldiers, Captain Ernest Medina ordered them to exterminate women and children. 68

Even though members of the CAF have generally acted professionally in the past, there is a risk that an unlawful order could be given. Just as we prepare soldiers for the unlikely event that they will be captured during combat, ethical training should prepare soldiers for the unlikely event that they will receive an unlawful order.

TRAIN AS YOU INTEND TO FIGHT

You do not rise to the occasion in combat, you sink to the level of your training. Do not expect the combat fairy to come bonk you with the combat wand and suddenly make you capable of doing things that you never rehearsed before. It will not happen.⁶⁹

D. Grossman, On Combat

In battle, soldiers rarely have the luxury of thinking through moral dilemmas in the deliberate and rational way that conventional ethics training assumes. But ethics training may overcome this limitation by teaching soldiers strategies that will help them respond appropriately under the extreme stress of combat. It is worth observing that the Directorate of Army Training stipulates that CAF training be modeled on the "train as we intend to fight" doctrine, which mirrors Grossman's remark about the importance of realistic training:

This is the prime directive of training. It is as much a state of mind as it is a guide to action. In practical terms it implies that all training is to incorporate the highest degree of fidelity possible, and that no aspect of operations is to be "notionalized" if a means to simulate it is available.⁷⁰

We suggest that battlefield ethics training needs to build on the same foundation as general training.⁷¹ Soldiers should be trained in a way that is consistent with the conditions under which they will carry out their duties on the battlefield.⁷² The "train as we intend to fight" approach is also widely supported by empirical evidence. Working repetition into training improves performance among artillery soldiers,⁷³ for example, and it is also applied to first aid training.

Similarly, ethics training should be taught in a way that soldiers will be instinctively and immediately able to draw on lessons they have learned in training when they confront ethical dilemmas in real life. Soldiers need to learn the behavioural steps involved in performing their duties in an ethical manner. Realistic training is often repetitive, which can prepare individuals for shocking, stressful events in combat.⁷⁴ In support of this point, Grossman quotes a Vietnam veteran as saying,

In Vietnam, I was always surprised to find I had done the right thing in tight situations. I sort of went into automatic and didn't think about what I was doing, or even remember it later. I'm a firm believer in training, that dull, boring "If I have to do this one more time I'll scream" training that every GI [general infantry] hates. It lets people like me perform in combat when common sense was telling me to run like hell.⁷⁵

Like other combat skills, ethical reactions must be well learned so they are also immediate and virtually instinctive in the heat of battle.

If we apply the "train as you intend to fight" principle to the psychological risk factors that may lead people to act unethically, then the following suggestions can be made for operationally focused ethical training.

First, ethics training can be conducted in a non-stressful environment so that key lessons can be absorbed (such as the impact that crowds can have on ethical decision-making). This information can be repeated to increase retention of key lessons. Next, ethics training can simulate stressful situations (such as surprise and shock) to teach soldiers how to respond when confronted with ethical dilemmas under stressful conditions. This can also allow soldiers to practice coping with strong emotions such as anger. Finally, when conducting scenario-based training, soldiers and leaders can practice intervening during a staged ethical misconduct.

The research on psychological factors in ethical behaviour also has important implications for leaders. First, it highlights the importance of giving specific orders that leave little room for ambiguity, because such orders may reduce unethical conduct. Second, it suggests that leaders in

a combat situation should be prepared to diffuse soldiers' anger resulting from key triggers (such as the injury or death of a brother or sister in arms) by practicing techniques they can use to diffuse this anger before deploying. In some cases, it may be a good idea to give soldiers a cooling off period before they engage with the enemy after exposure to one of these triggers. Third, this research shows that face painting, masks and other alterations of appearance make soldiers feel anonymous, which is a risk factor for unethical behaviour. Although altering appearance is often a necessary component of deployment, leaders can still monitor the dress and deportment of their subordinates and emphasize the importance of acting ethically when the temptation to act unethically may be high. Fourth, this research suggests that leaders can work with in-group loyalty instead of against it to increase ethical conduct. For example, when discussing ethical conduct, leaders can focus attention on how ethical misconduct could cost the lives of platoon members and cause lasting psychological harm to soldiers and embarrass the unit.

This research also has several implications for soldiers who are not in a leadership position. In other forms of training, soldiers are taught to be vigilant regarding the performance of other soldiers. We recommend that soldiers apply this lesson to ethical behaviour: soldiers should remain vigilant for signs that a fellow soldier might be having difficulties (e.g., uncontrolled anger) and should have a plan in place for what to do when faced with particular situations, such as calling out someone's name or rank to make them self-aware if they look like they may engage in an unethical act. Second, we recommend that soldiers practice self-control techniques to manage explosive anger in a combat situation, that they develop a personal plan of action for potential ethical dilemmas ahead of time, and that they make a personal commitment to follow through should the situation arise. As Grossman suggests,

the reality is you do not know what you are going to do when your world comes unglued unless you prepare your mind, soul and spirit ahead of time... When you have rehearsed and prepared to always do the right thing at the moment of truth, you are more apt to deal appropriately with whatever comes your way.⁷⁶

Psychological research also has implications for evaluating the effectiveness of any technique that aims to change attitudes and behaviour. One technique rooted in applied social psychology that could be used to test whether ethics training actually works is an experimental design.⁷⁷ This technique is important because well-designed experiments can reveal unintended consequences of intervention techniques. For example, one study found that an intervention focused on increasing knowledge of drug use led to an increase in knowledge about this undesirable behaviour, but also led to an *increase* in the unwanted behaviour.⁷⁸ Thus, it is important to establish whether an ethics training program actually impacts attitudes and behaviour.⁷⁹

CONCLUDING REMARKS

At the beginning of this paper, we quoted retired Major-General Mackenzie who suggested that soldiers' ability to process information is limited in combat, and that "It will be his or her own moral code that will dictate their response – nothing more, nothing less." While we agree that an individual's ability to process and remember information is likely limited under the stress of combat, we disagree that an individual's moral

code is the sole factor driving his/her behaviour. As we showed in this chapter, several situational factors can drive ethical conduct in operations (i.e., combat exposure, stress, surprise, anger, anonymity, crowds, in-group loyalty

Ethics training needs to incorporate the emotional influences that people face in real-world situations and motivate people to "implement principles that they apparently understand quite well." In other words, ethics training needs to address the reasons people fail to act ethically, despite their knowledge that such conduct violates the army's expectations.

and obedience). Ethics training needs to incorporate the emotional influences that people face in real-world situations⁸¹ and motivate people to "implement principles that they apparently understand quite well."⁸² In other words, ethics training needs to address the reasons people fail to act ethically, despite their knowledge that such conduct violates the army's expectations.

ENDNOTES

- S. Kilpatrick, "Semrau Kicked out of Canadian Forces," CBC News. December
 2001, http://www.cbc.ca/news/canada/story/2010/10/05/captain-robert-semrau-sentencing-afghanistan.html
- Quoted in R. Semrau, The Taliban Don't Wave (Mississauga, ON: John Wiley and Sons, 2012), xii.
- 3. See, for example, C. D. Batson and E. R. Thompson, "Why Don't Moral People Act Morally? Motivational Considerations," Current Directions in Psychological Science 10, no. 2 (2001): 54–7; S. Milgram, "Some Conditions of Obedience and Disobedience to Authority," Human Relations 18, no. 1 (1965): 57–76; K. Van den Bos, P. A. M. Van Lange, E. A. Lind, L. A. Venhoeven, D. A. Beudeker, F. M. Cramwinckel, L. Smulders, and J. Van der Laan, "On the Benign Qualities of Behavioral Disinhibition: Because of the Prosocial Nature of People, Behavioral Disinhibition can Weaken Pleasure with Getting More Than You Deserve," Journal of Personality and Social Psychology 101 (2011): 791–811.
- 4. E. J. Betan and A. L. Stanton, "Fostering Ethical Willingness: Integrating Emotional and Contextual Awareness with Rational Analysis," *Professional Psychology: Research and Practice* 30, no. 3 (1999): 295–301; D. Meichenbaum, "Stress Inoculation Training: A Preventative and Treatment Approach," in *Principles and Practice of Stress Management*, 3rd Edition, eds. P. M. Lehrer, R. L. Woolfolk, and W. S. Sime, 497–516 (New York: Guilford Press, 2007); P. G. Zimbardo, *The Lucifer Effect: Understanding How Good People Turn Evil* (New York: Random House, 2007).
- D. Grossman, On Combat: The Psychology and Physiology of Deadly Conflict in War and Peace, 2nd ed. (Belleville, IL: PPCT Research Publications, 2007); B. Litz, N. Stein, E. Delaney, L. Lebowitz, W. P. Nash, C. Silva, and S. Maguen, "Moral Injury and Moral Repair in War Veterans: A Preliminary Model and Intervention Strategy," Clinical Psychology Review 29 (2009): 695–706.
- 6. Litz et al., "Moral Injury and Moral Repair," 695–706; B. Lueger-Schuster, T. M. Glück, U. S. Tran, and E. L. Zeilinger, "Sexual Violence by Occupational Forces During and After World War II: Influence of Experiencing and Witnessing of Sexual Violence on Current Mental Health in a Sample of Elderly Austrians," *International Psychogeriatrics* 24, no. 8 (Aug 2012): 1354-58. L. R. Nissen, J. L. Marott, F. Gyntelberg, B. Guldager, "Danish Soldiers in Iraq: Perceived Exposures, Psychological Distress, and Reporting of Physical Symptoms," *Military Medicine* 176, no. 10 (Oct 2011): 1138-43.
- P. Devlin and G. Moretti, Foreword, Duty with Discernment: CLS Guidance on Ethics in Operations, Strategic Edition (Ottawa: Directorate Army Public Affairs, 2009), 5–6.
- 8. Defence Ethics Program, Fundamentals of Canadian Defence Ethics (Ottawa: Department of National Defence, 2002), 6.

- 9. J. Stern, Terror in the Name of God: Why Religious Militants Kill (New York: HarperCollins, 2003), 32.
- 10. Defence Ethics Program, *Guidelines for Defence Ethics Training* (Ottawa: Department of National Defence, 2004), 2.
- 11. T. L. Beauchamp, N. L. Bowe, and D. G. Arnold, Ethical Theory and Business, 8th Edition (Upper Saddle River, NJ: Pearson, 2009), 7.
- 12. J. Graham, B. A. Nosek, J. Haidt, R. Iyer, S. Koleva, and P. H. Ditto, "Mapping the Moral Domain," *Journal of Personality and Social Psychology* 101, no. 2 (2011): 366–85.
- 13. F. Schneider, J. Gruman, and L. Coutts, "Defining the Field of Applied Social Psychology," in *Applied Social Psychology: Understanding and Addressing Social and Practical Problems*, eds. F. Schneider, J. Gruman, and L. Coutts (London: Sage Publications, 2005), 8.
- 14. Mark R. Leary and Robin M. Kowalski, "An Introduction to Social-Clinical Psychology," in *The Interface of Social and Clinical Psychology: Key Readings in Social Psychology*, eds. Robin M. Kowalski and Mark R. Leary, 3–10 (New York: Psychology Press, 2004).
- C. H. Warner, G. N. Appenzeller, A. Mobbs, J. R. Parker, C. M. Warner, T. Grieger, and C. W. Hoge, "Effectiveness of Battlefield-Ethics Training During Combat Deployment: A Programme Assessment," *Lancet* 378, no. 9794 (2011): 915–24.
- C. A. Castro and D. M. McGurk, "Battlefield Ethics," Traumatology 13, no. 4 (2007): 24–31.
- J.-R. S. Blanc, "The Effect of Combat Exposure on Soldiers' Ethical Attitudes: Preliminary Model and Mitigation Strategy," doctoral dissertation, Saint Mary's University, 2012.
- J. A. Bargh, "The Ecology of Automaticity: Toward Establishing the Conditions Needed to Produce Automatic Processing Effects," *American Journal of Psychology* 105, no. 2 (1992): 181-99.
- C. A. Morgan III, A. Doran, G. Steffian, G. Hazlett, and S. M. Southwick, "Stress-Induced Deficits in Working Memory and Visuoconstructive Abilities in Special Operations Soldiers," *Biological Psychiatry* 60, no. 7 (2006): 722–9.
- 20. S. M. Smith, A. M. Glenberg, and R. A. Bjork, "Environmental Context and Human Memory," *Memory & Cognition* 6 (1978): 342–53.
- F. Gino, M. E. Schweitzer, N. L. Mead, and D. Ariely, "Unable to Resist Temptation: How Self-Control Depletion Promotes Unethical Behaviour," *Organizational Behavior and Human Decision Processes* 115 (2011): 191–203; C. M. Barnes, J. Schaubroeck, M. Huth, and S. Ghumman, "Lack of Sleep and Unethical Conduct," *Organizational Behavior and Human Decision Processes* 115 (2011): 169–80.

- G. A. Daddis, "Understanding Fear's Effect on Unit Effectiveness," Military Review 84, no. 4 (2004): 22–7.
- 23. Batson and Thompson, "Why Don't Moral People Act Morally?" 54-7.
- 24. Van den Bos et al., "On the Benign Qualities of Behavioral Disinhibition," 791-811.
- 25. P. Cheney, "Death and Dishonour," The Montreal Gazette, July 16, 1994.
- 26. S. Bindman, "Death in Somalia," The Montreal Gazette, March 18, 2004.
- 27. C. R. Whitney, "1968 the My Lai Massacre," New York Times, Feb 25, 2008.
- 28. Meichenbaum, "Stress Inoculation Training," 497-516.
- 29. L. L. Hourani, P. N. Kizakevich, R. Hubal, J. Spira, L. B. Strange, D. B. Holiday, S. Bryant, and A. N. McLean, "Predeployment Stress Inoculation Training for Primary Prevention of Combat-Related Stress Disorder," *Journal of Cyber Therapy and Rehabilitation* 4, no. 1 (2011): 101–17. For a more thorough discussion of stress inoculation training and its applicability to military training, see Chapter 4 of this publication.
- Minister of Public Works and Government Services Canada, Report of the Somalia Commission of Inquiry, 1997. Retrieved November 28, 2012 from http://www.dnd. ca/somalia/vol1/v1c13be.htm.
- 31. Ibid., para. 63.
- D. Jones, "Found: The My Lai Monster of Massacre," Daily Mail, October 6, 2007.
- 33. T. Perry, "Lawyers Defend Marines in Raid," Los Angeles Times, June 12, 2006.
- C. Marshall, "On a Marine Base, Disbelief Over Charges," New York Times, May 30, 2006.
- CBS News, "Javal S. Davis," The Personnel. Retrieved August 9, 2012 from http://www.cbsnews.com/2316-100_162-615518-11.html
- Standard Operating Procedure, DVD, directed, produced, and written by E. Morris (United States: Sony Pictures Classics, 2008).
- 37. Castro and McGurk, "Battlefield Ethics," 24-31.
- V. A. Reyes and T. A. Hicklin, "Anger in the Combat Zone," Military Medicine 170, no. 6 (2005): 483–7.
- 39. For a review, see J. L. Deffenbacher, E. R. Oetting, and R. A. DiGiuseppe, "Principles of Empirically Supported Interventions Applied to Anger Management," *The Counseling Psychologist* 30, no. 2 (2002): 262–80.
- J. L. Deffenbacher and R. S. Stark, "Relaxation and Cognitive-Relaxation Treatment of General Anger," Journal of Counseling Psychology 39 (1992): 158–67;
 S. L. Hazaleus and J. L. Deffenbacher, "Relaxation and Cognitive Treatments of

- Anger," Journal of Consulting and Clinical Psychology 54 (1986): 222–6; C. J. Robins, S. Keng, A. G. Ekblad, and J. G. Brantley, "Effects of Mindfulness-Based Stress Reduction on Emotional Experience and Expression: A Randomized Controlled Trial," Journal of Clinical Psychology 68, no. 1 (2012): 117–31; J. A. Stapleton, S. Taylor, and G. J. G. Asmundson, "Effects of Three PTSD Treatments on Anger and Guilt: Exposure Therapy, Eye Movement Desensitization and Reprocessing, and Relaxation Training," Journal of Traumatic Stress 19, no. 1 (2006): 19–28.
- 41. Department of National Defence, *Road to Mental Readiness*, last modified March 25, 2011, http://www.forces.gc.ca/health-sante/ps/mh-sm/r2mr-rvpm/pub/am-am/toc-tdm-eng.asp.
- 42. E. Diener, S. C. Frasier, A. L. Bearman, and R. T. Kelem, "Effects of Deindividuation Variables on Stealing among Halloween Trick-or-Treaters," Journal of Personality and Social Psychology 33 (1976): 178–83; R. I. Watson, "Investigation into Deindividuation using a Cross-Cultural Survey Technique," Journal of Personality and Social Psychology 25 (1973): 342–5; P. G. Zimbardo, "The Human Choice: Individuation, Reason, and Order Versus Deindividuation, Impulse, and Chaos," in 1969 Nebraska Symposium on Motivation, eds. W. J. Arnold and D. Levine (Lincoln: University of Nebraska Press, 1969), 237–307.
- 43. J. P. Bradley, "Psychological Foundations of Unethical Actions in Military Operations," in New Wars and New Soldiers, Military Ethics in the Contemporary World, eds. P. Tripodi and J. Wolfendale (Burlington, VT: Ashgate, 2011), 217–38; Zimbardo, The Lucifer Effect.
- R. I. Watson, "Investigation into Deindividuation using a Cross-Cultural Survey Technique," Journal of Personality and Social Psychology 25 (1973): 342-5.
- D. T. Miller and C. McFarland, "Pluralistic Ignorance: When Similarity is Interpreted as Dissimilarity," *Journal of Personality and Social Psychology* 53, no. 2 (1987): 298–305.
- 46. G. Shorey, "Bystander Non-Intervention and the Somalia Incident," *Canadian Military Journal*, Winter (2000-2001): 19–28. Retrieved August 15th, 2012, from http://www.journal.forces.gc.ca/vo1/no4/doc/19-28-eng.pdf.
- C. E. Ahrens, M. D. Rich, and J. B. Ullman, "Rehearsing for Real Life: The Impact of the InterACT Sexual Assault Prevention Program on Self-Reported Likelihood of Engaging in Bystander Interventions," *Violence Against Women* 17, no. 6 (2011): 760–76.
- 48. United States Department of Defense Sexual Assault Prevention and Response Office. "Our Strength is for Defending: Readiness = Respect," 2009 Campaign Materials. Retrieved from http://www.sapr.mil/index.php/saam/2009-materials.
- 49. Ahrens, Rich, and Ullman, "Rehearsing for Real Life," 760-76.
- A. L. Coker, P. Cook-Craig, C. M. Williams, B. S. Fisher, E. R. Clear, L. S. Garcia, and L. M. Hegge, "Evaluation of Green Dot: An Active Bystander Intervention

- to Reduce Sexual Violence on College Campuses," *Violence Against Women* 17, no. 6 (2011): 777–96.
- 51. J. Haidt and S. Kesebir, "Morality," in *Handbook of Social Psychology*, eds. J. Haidt and S. Kesebir (Hoboken, NJ: John Wiley & Sons, 2010), 797–832; T. S. Rai and A. P. Fiske, "Moral Psychology is Relationship Regulation: Moral Motives for Unity, Hierarchy, Equality, and Proportionality," *Psychological Review*, 118 no. 1 (2011), 57–75.
- 52. D. Winslow, "Misplaced Loyalties: The Role of Military Culture in the Breakdown of Discipline in Two Peace Operations," *Journal of Military and Strategic Studies* 6, no. 3 (2004): 1–18.
- J. P. Bradley, "When Loyalty to Comrades Conflicts with Military Duty," in Aspects
 of Leadership: Ethics, Law and Spirituality, eds. P. Tripodi and C. Connelley (Quantico:
 Marine Corps University Press, forthcoming).
- 54. D. L. Messervey, "What Drives Moral Attitudes and Behaviour?" DGMPRA Technical Report (Ottawa: Defence Research and Development Canada, forthcoming); J. L. Bernard and C. S. Jara, "The Failure of Clinical Psychology Graduate Students to Apply Understood Ethical Principles," *Professional Psychology: Research and Practice* 17, no. 4 (1986): 315.
- J. L. Pershing, "To Snitch or not to Snitch? Applying the Concept of Neutralization Techniques to the Enforcement of Occupational Misconduct," Sociological Perspectives 46, no. 2 (2003): 149–78.
- Haidt and Kesebir, "Morality," 797–832; H. C. Kelman and V. L. Hamilton, Crimes of Obedience: Toward a Social Psychology of Authority and Responsibility (New Haven: Yale University Press, 1989); Rai and Fiske, "Moral Psychology is Relationship Regulation," 57–75.
- 57. Messervey, "What Drives Moral Attitudes and Behaviour?" Kelman and Hamilton, *Crimes of Obedience*.
- S. Milgram, Obedience to Authority: An Experimental View (New York: Harper and Row Publishers, 1974).
- 59. J. M. Burger, "Replicating Milgram: Would People Still Obey Today?" *American Psychologist* 64 no. 1 (2009): 1–11.
- C. K. Hofling, E. Brotzman, S. Dalrymple, N. Graves, and C. M. Pierce, "An Experimental Study of Nurse-Physician Relationships," *Journal of Nervous and Mental Disease* 143 (1966): 171–80.
- 61. J. E. Driskell and E. Salas, "Group Decision Making Under Stress," *Journal of Applied Psychology* 76 (1991): 473–8.
- C. Haney, W. C. Banks, and P. G. Zimbardo, "Interpersonal Dynamics in a Simulated Prison," *International Journal of Criminology and Penology* 1 (1973): 69–97.

- 63. Milgram, Obedience to Authority.
- H. C. Kelman and V. L. Hamilton, Crimes of Obedience: Toward a Social Psychology of Authority and Responsibility (New Haven: Yale University Press, 1989).
- 65. Cheney, "Death and Dishonour."
- 66. Kelman and Hamilton, Crimes of Obedience, 57-75.
- 67. D. Wren, "My Lai no Accident," Orlando Sentinel, July 30, 1989.
- 68. Jones, "Found: The My Lai Monster of Massacre."
- 69. Grossman, On Combat, 77.
- 70. Directorate of Army Training, "Redefining Army Training," *The Army Doctrine and Training Bulletin* 3, no. 1 (2005): 14.
- 71. Messervey, "What Drives Moral Attitudes and Behaviour?".
- D. Grossman, On Killing: The Psychological Cost of Learning to Kill in War and Society (New York: Back Bay Books, 1995).
- J. D. Hagman, Effects of Training Task Repetition on Retention and Transfer of Maintenance Skill, Research Report 1271 (Alexandria, VA: U.S. Army Research Institute for the Behavioral and Social Sciences, 1980). Retrieved May 2, 2012, from http://www. dtic.mil/cgi-bin/GetTRDoc?AD=ADA101859.
- 74. Grossman, On Killing; On Combat.
- 75. Grossman, On Killing, 77.
- 76. Grossman, On Combat, 360.
- 77. D. L. Kirkpatrick and J. D. Kirkpatrick, *Evaluating Training Programs*, 3rd ed. (San Francisco: Berrett-Koehler Publishers, 2006); R. A. Noe and M. Peacock, *Employee Training and Development* (Toronto: McGraw-Hill Ryerson, 2008).
- N. S. Tobler, "Meta-Analysis of 143 Adolescent Drug Prevention Programs: Quantitative Outcome Results of Program Participants Compared to a Control or Comparison Group," *Journal of Drug Issues* 16, no. 4 (1986): 537–67.
- 79. For more information, see D. Messervey, "What Drives Moral Attitudes and Behaviour?".
- 80. Quoted in Semrau, The Taliban Don't Wave, xii.
- 81. E. J. Betan, "Toward a Hermeneutic Model of Ethical Decision Making in Clinical Practice," *Ethics & Behavior*, 7 no. 4 (1997): 347–65.
- 82. Bernard and Jara, "The Failure of Clinical Psychology Graduate Students," 315.

CHAPTER 6:

OBEDIENCE TO MILITARY AUTHORITY: A PSYCHOLOGICAL PERSPECTIVE

Peter Bradley

If the orders had always been obeyed, to the letter, the entire French army would have been massacred before August 1915.²

J. N. Cruz

The importance of obedience becomes clear in the first few hours of a military recruit's career. Typically, someone in authority, an officer or perhaps a squad instructo a compliant response is expected – and the quicker the better. Basic training is essentially an exercise in socialization and indoctrination into military culture, and obedience is one of the core values emphasized. Even though obedience is highly valued in the military, disobedience does occur; this is not always a bad thing according to Jean Norton Cruz. Soldiers occasionally disobey orders, ignore certain rules and regulations, or fail to live up to professional standards of military behaviour.

This chapter presents theory and research from psychology in an attempt to explain the factors that lead military personnel to obey or disobey. First, I establish the importance of obedience in the military, for the military is a unique organization in which the requirement for obedience is paramount. Second, I describe a number of psychological processes and theories that provide a conceptual framework for understanding how obedience and disobedience occur. Third, I introduce Milgram's conformity research, which illustrates just how far individuals will go to obey those in authority. Fourth, I present some thoughts on disobedience in the military with emphasis on the tendency to display outward compliance to military authority while privately rebelling. Fifth, I describe some circumstances in which disobedience is appropriate. Sixth, I show how the motivations of leaders and followers differ and how this may contribute to disobedience. Seventh, I provide several "real-life" cases of disobedience in the military and explain how these cases may have been influenced by some psychological processes. Finally, I conclude the chapter with some suggestions leaders might consider for encouraging follower obedience.

THE CENTRAL ROLE OF OBEDIENCE IN THE MILITARY

Military personnel have a duty to obey those above them in the chain of command and, at the same time, have the right to demand obedience from those below them. Documents like the *National Defence Act* and the *Queen's Regulations and Orders* (QR&O) instruct all military personnel to obey lawful authority. They also give legitimate authority to military leaders and prescribe when, where and how they can expect others to obey them. While the duty to obey appears relatively straightforward, the duties of leaders with respect to their followers are more complex, more loosely defined, and typically revolve around the obligation to provide discipline and competent leadership.

But why is obedience important in the military? As part of his study of obedience and mutiny in the French Army in the First World War, Smith points out that military operations are hierarchical activities, "thought out and organized from above, and executed (however imperfectly) from below." Thus, obedience is essential if military operations are to be effective. According to Huntington and Field Marshall Kietel,⁴ obedience and loyalty are the highest military virtues. Huntington contends that the military exists to serve the state and is organized in a hierarchy of obedience, wherein orders come down from senior political authorities through the chain of command. When it comes to obedience, no room for equivocation should be left open.

When the military man receives a legal order from an authorized superior, he does not argue, he does not hesitate, he does not substitute his own views; he obeys instantly. He is judged not by the policies he implements, but rather by the promptness and efficacy with which he carries them out. His goal is to perfect an instrument of obedience...⁶

In his article on obedience, Lieutenant-Colonel Wenker argues that military personnel should obey for three reasons. First, soldiers make a promise to obey the orders of their superiors when they join the military. Promises are supposed to be kept, and the importance of the promise to obey superiors is underscored by the solemn, if brief, ceremony in which the oath of allegiance is made upon enrolment. Second, this promise is actually more than a simple one; it is a contract that entails an obligation of justice that is stronger than the obligation of fidelity linked with promise-keeping. Wenker's third point rests on the function of the military in the context of a nation: the military's goals are the nation's goals and must therefore be obeyed. Accordingly, authorities higher in the chain of command should be obeyed because: (1) they have more experience and a better appreciation of the situation; (2) they are legitimate authorities; and (3) most of the time, they are right. As a result, the soldier's duty is to follow the orders of the nation as expressed by his/her chain of command.⁷

An important distinction between blind, unquestioning obedience and reflective obedience has also been made by Wheeler.⁸ Some in the military might applaud blind obedience, pointing to combat situations as evidence that the military requires immediate, unquestioning obedience. But even in combat, Wheeler suggests, there is often time for a more reflective obedience. The problem with blind obedience is that "when soldiers have in fact wrapped themselves up in their jobs and obeyed orders unthinkingly, they have aided in perpetrating some of the gravest crimes in human history." Wheeler suggests a causal chain in which obedience is derived from the loyalty that subordinates have for their leaders, and that loyalty follows from trust, which in turn is derived from the leader's integrity. Thus, in Wheeler's view, obedience is essentially a product of a leader's integrity.

THEORETICAL CONCEPTS

Kelman provides a useful model for understanding obedience. ¹⁰ His three-process model of social influence proposes that individuals can be influenced through: (a) compliance: followers accept the leader's influence to achieve a favourable response (e.g., reward) or to avoid a punishment; (b) identification: followers adopt the attitudes and behaviours associated with a particular role that they find self-defining; and (c) internalization: followers obey because the demanded behaviour is consistent with their own values. These processes are qualitatively distinct, but not mutually exclusive.

Internalization is the type of follower response that might be abetted by transformational leaders, because an important aspect of that leadership style is the encouragement of followers to accept unit values and objectives as their own. But followers operating on internalization are more likely to question the demands imposed by leaders, because such followers are in the habit of making their own value judgments. After all, they accept the organization's values because they are compatible with their own values. In Kelman's model, the influencing agent (i.e., the leader or anyone else who is trying to influence the behaviours, attitudes or beliefs of others) is perceived as successful to the extent that his/her demands will achieve the goals of these "others." The changes produced by the influencing agent can be positive or negative, overt or covert. Kelman also contends that resistance is an important, if implicit, aspect of the model.¹¹

Some influence attempts are said to be more successful than others. Yukl distinguishes among three possible responses to influence attempts:¹² (1) *commitment*: followers behave as directed by their leader and maintain a positive attitude toward the leader's direction (similar to Kelman's internalization); (2) *compliance*: followers need to be closely supervised; and (3) *resistance*: followers engage in "delaying, avoidant and non-complying behaviour coupled with attitudinal opposition."¹³ As with Kelman's model, these outcomes are qualitatively different, but may overlap as well. Yukl's framework of influence outcomes has been included in the Canadian Armed Forces doctrine manual *Leadership in the Canadian Forces: Conceptual Foundations*.¹⁴

Leaders might witness some blurring of these responses as the actual responses of their followers may contain elements of more than one type; perhaps, some of these responses will be stronger than others. For example, a junior non-commissioned officer (NCO) who is slated for an upcoming mission may be generally committed to the goals of the mission (commitment), but somewhat resentful over being sent on the mission (resistance) because he recently returned from deployment. At the same time, he may welcome the potential rewards that the mission has to offer (e.g., good assessment) which, in turn, might lead to promotion (compliance). In situations such as this, leaders are likely to witness multiple responses to their influence attempts.

Another theoretical model that is relevant to our discussion of the psychological processes underlying the decision to obey or not is Ajzen's theory of planned behaviour, ¹⁵ shown in Figure 6.1. Designed as a model to explain how individuals choose among several behavioural options, it can also inform our understanding of factors that lead to obedience or disobedience. In this model, the actions that individuals take, when they have a choice, are determined by (a) their *attitudes*: all the beliefs the individual has about the consequences of the action under consideration and the importance (or value) he/she places on these consequences toward the target behaviour; (b) the *normative influences* (and pressures) from significant others: beliefs that significant others have about the action that the individual is considering and the extent to which he/she is motivated to comply with their opinions; and (c) the amount of *personal control* they have at the time: the extent to which the actor feels that he/she has freedom to act as desired.

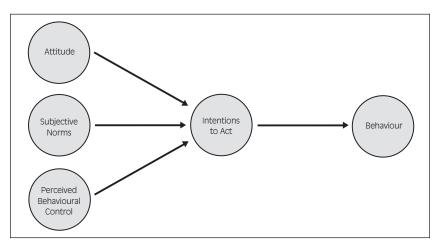


FIGURE 6.1: THE THEORY OF PLANNED BEHAVIOUR 16

In situations where individuals have plenty of personal control and few social pressures from significant others, they will act in accordance with their attitudes toward the target behaviour. When normative pressures are strong and levels of personal control are low, the attitudes of individuals contemplating a decision will have less influence on the chosen action.

The social influence processes and outcomes presented above provide important insights into how leaders influence followers and how followers may respond. Yet our understanding of obedience and disobedience can be informed further by considering the systems view of organizational effectiveness, as presented in *Leadership in the Canadian Forces: Conceptual Foundations.* This systems view describes behaviour in institutions (such as the CAF) at three levels of analysis: the individual, the group and the institution.¹⁷

At the individual level, factors that can influence soldiers' decision to obey or disobey include personal characteristics like their personality, values and attitudes, abilities, perceptions and motivation. All members of organizations belong to one or more subgroups which also have the ability to influence behaviours in powerful ways. Individuals will do things while in a group that they would not do on their own. For instance, an otherwise law-abiding citizen might throw a rock through a store window during a demonstration, but would never consider doing such a thing while on his/ her own. Group-level factors that can influence follower obedience include leadership influences, group cohesion, as well as the group's structure and communications processes. For example, a soldier may be willing to comply with the orders of his/her superiors, but may also be influenced by powerful members of his/her group who do not accept them. One might speculate, perhaps, that this is what happened with some of the "loyal soldiers" of the now disbanded Canadian Airborne Regiment in the months leading up to the regiment's deployment to Somalia in late 1992: "In-group loyalty was so strong that authorities were unable to find out who had participated in the burning of an officer's car. Investigations encountered only a wall of silence concerning this serious breach of discipline."18

Institutional-level influences also impact the individual. To this end, the systems view depicts the culture of the organization, the organization's structure, leadership and technology, as well as its policies and practices in regards to human resources. As examples of managerial processes that contributed to the erosion of integrity of the U.S. Air Force Officer corps, Major Genert (1976) listed the practices of (1) encouraging Air Force applicants to lie about previous drug use; (2) forcing officers to inflate the

performance appraisals of their subordinates; and (3) forcing officers to sign reports.

PROPENSITY TO OBEY

As social creatures, humans are inherently motivated to get along with others. There is a powerful urge within us, called conformity by social psychologists, which predisposes us to accept the directions of authority figures. Just how powerful this drive is can be seen in a series of studies conducted by Milgram in the 1960s.¹⁹

Most who have read about Milgram's experiments find the results unbelievable. Research subjects (the teacher) were directed by a university professor (the experimenter) to administer shocks to another person (the learner) in a series of studies on learning (no one was actually shocked). In Milgram's first experiment with 40 men, 63% of the teachers kept increasing the shock up to 450 volts. In a follow-on experiment with 40 participants, Milgram had the learner state that he had a slight heart condition as he was being strapped into the chair. The experimenter responded by explaining that the shocks would not cause permanent damage and, in the end, the results were virtually identical to the first in that 65% of teachers obeyed the experimenter up to 450 volts. Obedience to the experimenter's commands was strongest when the authority figure, the experimenter, was near the teacher. When the experimenter gave commands by telephone, full obedience dropped to 21%. In his phone study, some teachers stopped applying shock and then lied to this experimenter by stating that they were continuing to shock the learner. In a different variation, the experimenter was called away from the site and another staff member then assumed command. Full obedience in this condition dropped to 20%. In yet another study, two confederates were included in the study to object to the experimenter's commands. The result was that 90% of the teachers sided with the dissenting confederates and refused to carry on.

So what do the Milgram studies tell us about obedience that we can apply to the military setting? There are four important generalizations that are relevant for military leaders who wish to increase the chances of being

obeyed by their subordinates: (1) individuals have a strong compulsion to conform to the orders of their leaders, even those orders that are distasteful; (2) individuals are less likely to comply with difficult orders if the leader is not present; (3) individuals are less likely to comply with leaders whom they do not accept as legitimate authorities; and (4) when someone expresses resistance to distasteful orders, other followers will be influenced and obedience levels will diminish.

IS THERE A MILITARY TRADITION TO DISOBEY?

Kellett states that soldiers have long been able to display outward compliance to orders while actually doing much less than their orders require. He observes that "outright disobedience is a relatively rare occurrence in combat because it too obviously invites sanctions. Yet in modern warfare soldiers have found ways of reducing the risks implicit in their orders without inviting retribution. That is, they may comply with the letter of their instructions, but not necessarily with the spirit."²⁰

Kellett goes on to describe the outward compliance systems of the live-and-let-live activities of soldiers in the First World War. He also draws on more recent combat contexts to give other examples of outward compliance and private rebellion, like patrolling activities that deliberately avoided enemy contact and voluminous, yet inaccurate, firing on the enemy. Possibly one of the reasons why disobedience occurs is because of an "institutionalized" propensity to disregard orders in the CAF. In discussions with military officers, I have heard of orders, rules, and regulations that are customarily broken or disregarded. Examples include violating safety regulations, hazardous material handling, mishandling of classified material and performance appraisal (e.g., performance development report and personnel evaluation reporting process).²¹ There may be others. What all these examples have in common is that there was a rule that was not followed, perhaps because it was inconvenient, time consuming or the proper equipment was not readily available at the time.

If there is a tendency to break rules in the CAF, the logical follow-on question is: How does this contribute to disobedience in greater matters?

Unfortunately, there is no way to answer this question with certainty. On the one hand, we could take the view that most CAF personnel are capable of knowing when it is permissible to break a rule and that breaking "smaller" rules and regulations will not lead to more widespread disobedience. On the other hand, we could say that breaking minor rules might lead to a more generalized disregard of rules and regulations, and perhaps develop into a habit of defying authority. Similarly, we could consider the power and subtlety of social influence and suggest that junior personnel, who observe their seniors break rules in certain instances without knowing the full range of considerations that went into the leader's decision, might interpret this as tacit authorization to disobey in the future.

WHEN DISOBEDIENCE IS ACCEPTABLE

A fact that is perhaps not well known outside military circles, or even in the junior ranks of the military for that matter, is that there are times when military personnel may disobey. To begin with, soldiers are required to disobey orders that are "manifestly unlawful." According to the QR&Os, there is usually no doubt when an order is manifestly unlawful because such orders typically direct subordinates to commit illegal acts, such as "a command by an Officer to shoot another Officer for only having used disrespectful words; or a command to shoot an unarmed child."²²

Scholars have tackled the idea of acceptable disobedience in the military with varying degrees of clarity. Huntington lists four conditions in which military personnel can disobey their superiors: (1) when the order is illegal; (2) when the order is immoral (on rare occasions an order which is legal can be immoral); (3) when disobedience is necessary "to further the objective of the superior" (e.g., a junior commander ranging outside his assigned area of operations to exploit an unforeseen tactical advantage); and (4) when junior military members are aware of a tactical or technological innovation, which is not yet accepted by higher military authorities, but would contribute to military effectiveness.²³

Walzer and Rescher each examined the matter of obedience and disobedience in the military from the perspective of conflicting obligations.²⁴

Unfortunately, neither offers a clear answer for soldiers that are presented with moral dilemmas involving orders which conflict with professional (or moral) obligations.²⁵ Walzer categorizes the obligations soldiers have as being either (1) hierarchical: obligations to those above and below them in the chain of command; or (2) non-hierarchical: obligations soldiers have to members who are not within the chain of command, but who may nevertheless be affected by their actions.²⁶ Rescher also presents a hierarchy of obligations, ranging from soldiers' chain of command, up through their service and nation, and ending with civilization and humanity as a whole. By presenting these obligations in a hierarchy, Rescher implies that obligations to chain of command are less important than obligations to service, nation, etc.²⁷

As for deciding which obligation should be satisfied when there are several competing obligations, Walzer and Rescher refer individuals to ethical reasoning models like utilitarianism (e.g., comparing the consequences of pursuing one option over another), virtue-based ethics (e.g., comparing the motives involved in each option), and deontological ethics (e.g., evaluating the underlying principles and ethical obligations which are reflected in each option). Unfortunately, such analytical models are complex and many military personnel have not been trained to employ them effectively. Moreover, one's background and place in the military hierarchy often shape one's professional perspective, which can lead to different points of view on professional dilemmas.

DIFFERENCES IN RANK AND MOTIVATION

A study of 2,470 Canadian Army personnel shows how individuals at different levels of the military chain of command can have divergent professional perspectives. ²⁸ The opinions of officers and non-commissioned members (NCM) were measured on the relative importance of mission success and troop safety in combat operations to defend Canadian territory. Table 6.1 clearly illustrates that those at the higher ranks placed more importance on mission success than those at the lower ranks.

Rank	Sample Size	% for Mission Success	% for Troop Safety
Privates	415	84.3	15.7
Corporals	704	81.4	18.6
Master Corporals	335	74.0	26.0
Sergeants	355	83.3	16.7
Warrant Officers	170	78.6	21.4
Master Warrant Officers	46	84.8	15.2
Chief Warrant Officers	14	29.0	71.0
Second Lieutenants	17	94.1	5.9
Lieutenants	66	98.5	1.5
Captains	189	93.1	6.9
Majors	71	91.6	8.4
Lieutenant-Colonels	15	93.3	6.7

TABLE 6.1: MISSION ACCOMPLISHMENT AND TROOP SAFETY (BY RANK) 29

These results are perhaps not surprising. Mission success in operations is often achieved at the cost of troop safety and vice versa. These two professional imperatives are always in conflict in combat operations, and they are often in conflict in "near combat" as well. One might expect that those who anticipate having to endure most of the personal risk (i.e., the lower ranks) would place more importance on troop safety. The question (for which there is no ready answer) is to what extent will these differences in the relative importance of mission success and troop safety influence how energetically subordinates follow difficult or dangerous orders?

The story of Delta Company, 2nd Battalion, Princess Patricia's Canadian Light Infantry (2 PPCLI) is perhaps a dramatic example of what can happen when leaders and subordinates differ greatly on mission importance. In September 1993, soldiers in 2 PPCLI found themselves in what seemed to be an impossible mission in Croatia. Ostensibly on a peacekeeping mission, they were actually in the middle of a war of ethnic cleansing. Spread thinly over an area much too large for the Canadian contingent to easily manage, they were outnumbered and outgunned. Many of the soldiers feared for their lives, were not sure why they were there, and hoped that the mission

would end soon. Many of them thought that caution and security were the answer. A number of the leaders, in contrast, thought that aggressive action was the way to go. As mentioned in Carol Off's *The Ghosts of Medak Pocket*, it resulted that some of the soldiers conspired to poison some of their company leaders (i.e., commander, sergeant-major and one of the platoon warrant officers).³⁰

Let us now consider Off's description of Delta Company against what we know from Milgram's conformity research about the origins of resistance to leaders. In order for one of the medical officers to have heard of this conspiracy, there had to have been soldiers talking about Delta Company leaders in a rebellious manner, and we know that this is where resistance and disobedience begin. It sometimes takes only a few resisters to spawn disobedience. The Milgram studies showed that the presence of two individuals resisting the experimenter's exhortations was enough to build resistance in the teacher. Such influence can lead to a good outcome when the orders are immoral, as in the case of the Milgram experiment, or in the example described by Osiel in which an Israeli soldier "selectively resisted orders to deport the families of suspected Palestinian militants when there was no reason to suspect family members of terrorism."31 The commander agreed with the soldier and senior authorities cancelled the order.³² But what about those situations where the orders are simply dangerous; the sort that may put the lives of soldiers at risk? Perhaps this is what happened with 2 PPCLI.

EXAMPLES OF DISOBEDIENCE

Under normal circumstances, disobedience is "wrong." But sometimes, it is not. To this point, my discussion of obedience and disobedience has been theoretical and prescriptive. I would now like to turn to a few concrete examples. Each of these scenarios³³ involved some sort of disobedience. Some can be categorized as examples of breaking rules, while others can be seen as outright disobedience of orders. I will also consider each of the scenarios against some of the criteria permitting disobedience that were discussed earlier.

The first example is from the Second World War. When Canadian and British soldiers assaulted the German defences of Dieppe, France on the morning of August 19, 1942, many men stormed the beaches with all the gallantry expected of highly motivated soldiers. Others had to be prodded out of the landing craft by their officers and NCOs. Unfortunately for the Canadians, the assault did not go well against the strong German defences and many of those in the first wave of the assault were killed or wounded. Believing the first wave was having some success, Canadian Major-General Roberts ordered the second wave of soldiers (a unit of the Royal Marines) ashore. When the first landing craft hit shore, Colonel Phillips could see that the first wave had not broken through the enemy's beach defences. With no success to be exploited on the beach, he duly ordered the landing craft to return his troops to their ships.³⁴

The Dieppe example is complex and its analysis is made all the more difficult by the fact that Colonel Phillips was killed shortly after giving the order to return to the ships. We therefore have no account of his motives or reasons for abandoning the attack. It is possible that his actions were consistent with Huntington's condition that disobedience is acceptable when it coincides with the "spirit" of the commander's intent. After all, Dieppe was a raid to harass German defences, not to establish a beachhead, so when he saw no potential to harass the defences further, he perhaps thought it was acceptable to order the retreat. It is also possible that Phillips' action was consistent with the commander's intent, for Major-General Roberts had dispatched the second wave based on his belief that there was some success to be exploited on the beach.

The second example happened during the Somalia operation in 1993, where Canadians were forbidden to transport Somalis in Canadian vehicles. A Canadian NCO, accompanied by a soldier-driver, was tasked to escort a foreign military convoy. During this assignment, the convoy came across a truck carrying a number of Somalis and a load of humanitarian aid on a rural road quite far from any built-up areas. The aid truck went off the road and overturned. Several of the Somalis were hurt seriously enough that they required medical care beyond the first aid treatment that was possible at the accident site. Despite being under orders not to

transport Somalis in Canadian vehicles, the soldiers took the injured to a medical clinic.

This case is an example of a moral conflict that frequently occurs on military operations — the conflict between the professional imperative to obey orders and the moral imperative to do what one thinks is the right thing. In this case, the members likely considered the consequences of their options as best they could evaluate them. They thus considered their obligation to obey the "no transporting locals in Canadian vehicle" regulation, as well as their obligation to relieve the suffering of the casualties who had no other help available to them. In the end, they ultimately decided to satisfy the moral obligation and helped the injured.

The third example comes from Canadian Major-General Tousignant, who described an ethical dilemma he had experienced in 1995 as commander of the United Nations Assistance Mission in Rwanda (UNAMIR). At the time, the Rwandan government was closing refugee camps that had been established to house individuals displaced during the ethnic cleansing. A large number of individuals were not going home, however, and had instead collected at a camp in Kibeho. Tousignant anticipated that the Rwandan government might use force to disperse the refugees and reported his concerns to the United Nations (UN) headquarters. In response, they forbade him from using his UNAMIR troops to intervene. He disobeyed the order, kept a Zambian battalion in the area, and believes he saved a large number of refugees by doing so.³⁵

Major-General Tousignant's case involved a conflict between orders and morality. But in his situation, the potential threat to life was huge as his decision would ultimately impact some 125,000 refugees. Tousignant's dilemma was almost identical to the one experienced several years earlier by then Brigadier-General Dallaire, who had been directed to abandon several thousand refugees who were under UN protection in a sports stadium in Kigali. In both cases, the generals defied orders and tried to fulfill their moral obligations as they saw them. Both saved many lives. Perhaps the fact that neither of these officers was ever publicly reprimanded or charged for their disobedience implies tacit approval for the actions that they took.

The fourth (and final) case was provided by journalist Adam Day who wrote about a Canadian patrol he accompanied during one of the early rotations of Operation ATHENA³⁶ in Afghanistan. Led by a senior NCO, the tasking was planned as an eight-hour patrol. After about five or six hours, the group parked in a courtyard and remained there. Day recounts "during our conversation the soldiers made it clear this was what they considered a pointless patrol and that they could accomplish as much sitting here as they would driving around in circles for the rest of the night."³⁷ After several hours in the courtyard, the patrol returned to Camp Julien.

Applying Yukl's range of responses, we see no commitment on the part of the Canadian patrol, some compliance and plenty of resistance. Events like this probably happen in operations more often than we would like to think. Is this example not similar to the live-and-let-live system of outward compliance, but internal rebellion, that First World War historians reported? Perhaps the event unfolded like this: the soldiers did not understand the importance of the mission, or did not agree that it was important; resistance developed as it did in the Milgram studies: formal or informal leaders in the group arrived at a consensus that the orders were inappropriate and a decision was made to disobey some of the order's intent that sent them on patrol.

INCREASING THE LIKELIHOOD OF BEING OBEYED

The remainder of this chapter describes actions that leaders can take to increase the chances that their followers will obey them. These suggestions evolve from Kelman's theory of influence processes and Yukl's framework of influence outcomes. Considering Kelman's theory, most leaders would prefer leader-follower relationships built on identification and internalization, rather than compliance. With respect to Yukl's scheme, most leaders would likely agree that the preferred follower response is commitment, followed by compliance (if commitment cannot be solicited). To be certain, leaders do not want resistance, except in those instances where the leadership thrust is misguided and the leader needs to be alerted to the error.

Developing Social Power

Increasing the likelihood of being obeyed is really about enhancing personal leadership qualities. At its core, leadership is about influence: influencing the behaviours, values and attitudes of others. Influence is the by-product of power, so to influence others, leaders need to have social power. Two classes of social power have been proposed: *position power* and *person power*. ³⁸ A leader's position power is derived from the authority that he/she has as a function of his/her role, or position, in the military. Person power, on the other hand, comes from the leader's character, personality, effort, competence and so on.

The more power a leader has, the greater the chance that his/her followers will obey: "Because power is an attribution made by others, and because leaders cannot control how others perceive and interpret their behaviour, leaders have to be mindful of the fact that they are always 'on parade' and that their conduct and performance will add to, or detract from, their power credits." Power can be transitory and therefore needs to be maintained, so strengthening position and person power is the proper way for leaders to enhance their ability to inspire obedience and reduce follower resistance. Some suggestions for increasing and maintaining leader power have been made by Yukl and are reprinted in Table 6.2.40 Using this table as a memory aid, leaders can review their own leadership qualities, determine where their power bases may be weak and then apply some of these tips to increase their ability to influence others.

POSITION POWER	PERSON POWER		
Legitimate Power Gain more formal authority Exercise authority regularly Follow proper channels in giving orders Back up authority with reward and coercive power	Expert Power Gain more relevant knowledge Demonstrate competence by solving difficult problems Don't lie or misrepresent the facts Don't keep changing your position		
Reward Power Discover what people need and want Don't promise more than you can deliver Don't use rewards in a manipulative way Don't use rewards for personal benefit	Referent Power Show acceptance and positive regard. Act supportive and helpful Defend subordinates' interests and back them up when appropriate Keep promises		
Coercive Power Identify credible penalties to deter unacceptable behaviour Don't make rash threats Use only punishments that are legitimate Fit punishments to the infraction			

TABLE 6.2: YUKL'S TIPS FOR INCREASING AND MAINTAINING SOCIAL POWER⁴¹

Lessons from Planned Behaviour

Ajzen's theory of planned behaviour suggests three potential lessons for leaders. First, leaders may be able to influence the attitudes of subordinates by presenting the actions that they want them to take in positive terms and by encouraging followers to place positive value on these consequences. Second, leaders will do well to understand the normative influences on followers. Military leaders will have ample opportunity (with their person and position power) to influence significant others within the military (e.g., unit mates, informal leaders, etc.), but their chances of influencing the beliefs and attitudes of significant others outside of the military is minimal. That said, the attitudes of significant others outside of the unit can possibly be influenced in subtle ways by the competence, knowledge and caring of the

leader when interacting with them. Third, lowering the amount of control subordinates have to choose one action over another can reduce the impact of followers' attitudes on the actions they ultimately take. Close supervision and other constraints on the autonomy of followers will reduce their ability to act in accordance with their own attitudes and normative influences.

Lessons from Milgram

Leaders who want to increase the likelihood that they will be obeyed by their subordinates can consider the lessons from the Milgram studies: (1) be present when subordinates are carrying out your order or detail the more difficult orders to a reliable subordinate leader when you cannot witness them yourself; (2) ensure that you have done everything in your power to be a legitimate leader to your subordinates; followers are looking for competent leaders who will get them through the mission alive; and (3) neutralize any resistance to your authority and your orders by giving only orders that are reasonable, by knowing your followers well (i.e., those who support you and those who do not), and by building trust accordingly.

Communication

Communication is one area where many leaders fall down simply because they do not communicate enough with their subordinates. Brief speeches of command philosophy during a change of command ceremony are not enough. In the words of U.S. Army General Reimer (a former Chief of Army Staff), "it's particularly important during this time of change that leaders communicate frequently and personally with their soldiers and civilian employees. Communicating means not only telling them what is going on, but listening to their concerns and doing something about them."⁴² Leaders have an important role in interpreting what their followers are doing and presenting it in terms that show followers how their actions are contributing to the commander's vision, the unit's mission and the nation's interests. Leaders must not leave this important role of interpreting the unit's work to informal leaders in the unit, lest these informal leaders introduce a cynical interpretation that erodes follower commitment to the mission.

Leaders need to communicate often and their communication needs to cover a wide array of topics, such as unit mission, vision, national interests, military values and so on. One way to look at this aspect of leader communication is as an important element of expressing "commander's (implicit and/or explicit) intent." The concepts of *implicit* and *explicit* intent are embedded in the framework of mission command, a leadership doctrine built around the notion that subordinates understand their higher commander's intent and that they execute this intent accordingly. Pigeau and McCann describe explicit intent as what is publicly communicated and therefore publicly known. Leadership runs smoothly when there is plenty of implicit intent, but more explicit intent is required when there is not an abundance of implicit intent. A commander frequently communicating with his/her subordinates allows for explicit intent to be relayed to all concerned.

Communicating organizational values to subordinates and aligning follower values with the values of the three Environmental Commands (whether it be army, navy or air force) is an important leadership function that promotes obedience. It is very easy for leaders to take followership for granted. For instance, we have seen many cases in which lowerlevel units (i.e., sections, platoons and companies) developed values and norms that were not consistent with higher organizational norms. These examples include the U.S. Army company that massacred several hundred non-combatants in My Lai, Vietnam in 1968,46 as well as the Canadian Airborne Regiment that committed atrocities in Somalia in 1993.47 Military life naturally creates strong horizontal cohesion (i.e., the lateral bonds among peers and sometimes, immediate superiors), and this lateral loyalty can become so powerful that it leads to leadership failures. On the other hand, vertical cohesion (i.e., the cohesive bonds that flow up and down the military hierarchy) is the glue that ensures that the values and norms of lower level units are consistent with unit, service and national interests. But vertical cohesion is difficult to achieve, hard to maintain and tactical leaders may not appreciate its importance.

Knowing your Subordinates

One of the keys to reducing resistance and increasing obedience is to know your troops. Unfortunately, knowing your followers well enough to establish trust is difficult in a hierarchical organization like the military where members have much more direct contact with their peers than with their superiors. Personnel in the military spend a lot of time with their peers and informal peer-leaders can generate considerable influence on the attitudes and behaviours of others during these times. This means that officers and NCOs often have less time to influence their subordinates than do informal leaders. Certainly, they have the legitimacy of their rank on their side, but the presence of unwilling followers who have the ability to influence reluctant others is a recipe for resistance.

Many leaders take pride in knowing their people, but many of them do not have as good an understanding of their followers as they would like to think. As part of his work, Lieutenant-Colonel Farley (retired; now Chief Scientist within Director General Military Personnel Research and Analysis) summarized a long line of research demonstrating that military leaders often overestimate the attitudes of their subordinates. Farley described the post-Second World War research of Samuel Stouffer which asked U.S. Army soldiers how proud they were of their company, then asked company commanders how much pride the soldiers had in their company. The results are instructive for all military leaders who think they know how their troops feel. Of the 53 company commanders surveyed, 83% overestimated the level of pride soldiers held for their respective company.⁴⁹ More recent Canadian research by Farley and Veitch on units deployed in Bosnia showed a similar tendency of platoon and company leaders to believe that their soldiers' attitudes were more positive than they actually were.⁵⁰ In this study, leaders consistently overestimated the responses of their soldiers to questions measuring morale, cohesion and confidence in unit leaders.⁵¹

At a theoretical level, the potential for disobedience is apparent in both Milgram's conformity research and in the above-mentioned Canadian research. Milgram showed how two resistant followers could generate resistance in others and the Canadian research showed that leaders do not

always know their followers as well as they think they do. Consequently, disobedience can take root when followers who are discontent with a particular situation are combined with leaders who not only make overly positive assessments of followers' commitment, but who also provide less supervision because they believe their followers support the plan in the first place. Perhaps the remedy is transformational leadership, particularly the components of *idealized influence* (i.e., presenting a compelling vision to subordinates along with a high personal example for followers to emulate) and *inspirational motivation* (i.e., exhorting followers to transcend their own personal interests to accept the goals of the unit as their own – similar to Kelman's internalization process). Aspiring transformational leaders need to understand that idealized influence and inspirational motivation require a great deal of communication between leaders and followers.

The Importance of Character

Leaders derive their power from followers' perceptions of the extent to which the leaders possess *expert power* and *referent power*. A large part of referent power comes from the leader's character, of which integrity should be present in large measure. Although there is no empirical evidence to support Wheeler's theory on obedience, his causal chain of integrity, trust, loyalty and obedience is appealing.⁵² This model provides a clear link between integrity and obedience, and suggests to all leaders that building, maintaining and demonstrating their integrity will increase the probability that subordinates will obey them.

To better understand the importance of trust, leaders might spend some time reflecting on the vulnerability and dependence of followers. On joining the military, soldiers give up much of their independence and become dependent on their leaders. The only way that soldiers can continue to give up their independence freely and obey their leaders is with the understanding that their leaders will take care of them. This is called trust and leaders need to nurture it. How do you develop trust? According to Kalay "soldiers' trust in their commanders depend[s] on three qualities: professional capability (i.e., technical competence), credibility as a source of information, and the amount of care and attention he pays to the men."⁵³

Leadership in the Canadian Forces: Conceptual Foundations reinforces this aspect of trust: "Three major personal qualities are critical to the development of trust in leaders: leader competence, the care and consideration of others displayed by the leader, and leader character (integrity, dependability and fairness)." A number of actions that leaders can take to engender trust are reproduced in Table 6.3.

- Be proficient and strive to enhance your proficiency
- Make good decisions, do not expose people to unnecessary risks
- Show trust and confidence in subordinates, give them authority and involve them in decision making when you can
- Demonstrate concern for follower well-being, ensure the organization takes care
 of them
- Show consideration and respect for others, treat subordinates fairly
- Focus on the mission, maintain high standards, communicate openly and honestly
- Lead by example, share risks, do not accept special privileges
- Keep your word and honour your obligations

TABLE 6.3: HOW TO INCREASE YOUR TRUSTWORTHINESS 55

CONCLUDING REMARKS

As a former member of the Royal Canadian Regiment (RCR), I would be guilty of neglecting my own professional upbringing if I did not show how the RCR motto of "Never pass a fault" can promote obedience in one's subordinates. ⁵⁶ Correcting faults fits in with the transactional style of leadership (it is called *active management-by-exception*) in which the leader establishes what standards are expected and then monitors performance to ensure that the required standard is met. The motto is also consistent with the transformational leadership practice of establishing high standards (idealized influence). Therefore, applying the rule of never passing a fault is good leadership and can enhance follower obedience. By seeing leaders correct unsatisfactory performance, ⁵⁷ subordinates also learn the standards expected in the unit, increase their understanding of implicit intent, and have positive influences to reflect upon the next time they are presented with a choice between obedience and disobedience.

Military operations are hierarchical in nature, conceived by those at the top and executed by those at the bottom. ⁵⁸ Consequently, obedience is required at all levels if military operations are to be effective. Fortunately, soldiers are conforming individuals who will generally comply with the leadership

of military authorities; however, there are many influences, some personal (e.g., soldier's courage and ability) and some environmental (e.g., unit's leadership climate and

Obedience or disobedience is the choice of followers, but there are many things that the leader can do to ensure that soldiers make the right choice. To this end, all leaders should be sensitive to the elements that contribute to their ability to influence others.

organizational culture) that can generate follower resistance. Obedience or disobedience is the choice of followers, but there are many things that the leader can do to ensure that soldiers make the right choice. To this end, all leaders should be sensitive to the elements that contribute to their ability to influence others.

ENDNOTES

- An earlier version of this chapter appeared in C. L. Mantle (ed.), The Unwilling and the Reluctant: Theoretical Perspectives on Disobedience in the Military (Kingston, Ontario: Canadian Defence Academy Press), 13–41.
- J. N. Cruz as quoted in L. V. Smith, Between Mutiny and Obedience: The Case of the French Fifth Infantry Division During World War I (Princeton: Princeton U. P., 1994), 3.
- 3. Smith, Between Mutiny and Obedience, 3.
- Cited in M. J. Osiel, Obeying Orders: Atrocity, Military Discipline and the Law of War (New Brunswick, NJ: Transaction, 2002).
- 5. S. P. Huntington, *The Soldier and The State: The Theory and Politics of Civil–Military Relations* (Cambridge: Belknap, 1957).
- 6. Huntington, Soldier and The State, 48.
- K. H. Wenker, "Morality and Military Obedience," Air University Review 32, no. 5 (1982): 76–83.
- M. O. Wheeler, "Loyalty, Honor, and the Modern Military," in War, Morality and the Military Profession, ed. M. M. Wakin (Boulder: Westview, 1986), 171–9.
- 9. Wheeler, "Loyalty, Honor," 172.
- H. C. Kelman, "Further Thoughts on the Processes of Compliance, Identification, and Internalization," in *Perspectives on Social Power*, ed. J. T. Tedeschi (Chicago: Aldine, 1974), 125–71.
- 11. Ibid., 125-71.
- G. Yukl, Leadership in Organizations, 4th ed. (Upper Saddle River: Prentice Hall, 1998).
- 13. Quotation from Canadian Forces Leadership Institute, *Leadership in the Canadian Forces: Conceptual Foundations*, Publication A-PA-005-000/AP-004 (Kingston: Canadian Defence Academy, 2005), 72.
- 14. Ibid., 72.
- 15. I. Ajzen, "The Theory of Planned Behavior," Organizational Behavior and Human Decision Processes 50 (1991): 179–211.
- 16. Adapted from Ajzen, "The Theory of Planned Behavior," 179-211.
- 17. Canadian Forces Leadership Institute, *Leadership*, 3. See also the "Basic OB Model" in S. P. Robbins and N. Langton, *Organizational Behaviour*, 3rd ed. (Toronto: Pearson–Prentice Hall, 2003), 20.
- D. Winslow, "Misplaced Loyalties: Military Culture and the Breakdown of Discipline in Two Peace Operations," in The Human in Command: Exploring the

- Modern Military Experience, eds. C. McCann and R. Pigeau (New York: Kluwer Academic / Plenum, 2000), 306. See also D. Bercuson, Significant Incident: Canada's Army, the Airborne, and the Murder in Somalia (Toronto: McClelland and Stewart, 1996), esp. Chapters 8 and 9.
- Stanley Milgram, Obedience to Authority: An Experimental View (New York: Harper & Row, 1969).
- 20. A. Kellett, Combat Motivation (Boston: Kluwer-Nijhoff, 1982), 147.
- The author would like to thank Colonel Bernd Horn for suggesting these examples.
 Personal communication, August 10, 2005.
- Queen's Regulations and Orders (Ottawa: Department of National Defence), see notes to QR&O 19.015.
- 23. Huntington, Soldier and The State.
- 24. M. Walzer, "Two Kinds of Military Responsibility," in *The Parameters of Military Ethics*, eds. L. J. Matthews and D. E. Brown (Toronto: Pergamon, 1989), 67–72; N. Rescher, "In the Line of Duty: The Complexity of Military Obligation," *The Joseph A. Reich, Sr., Distinguished Lecture on War, Morality, and the Military Profession*, Issue 3 (Colorado Springs: United States Air Force Academy, 1990).
- 25. See Chapter 5 of this publication on the connection between obedience and ethical conduct.
- 26. Walzer, "Two Kinds of Military Responsibility," 67–72.
- 27. Rescher, "In the Line of Duty."
- 28. J. Johnston, P. Bradley, D. Charbonneau, and S. Campbell, *The Army Culture-Climate Survey* (Kingston: Royal Military College of Canada, 2004).
- Respondents were asked: "When engaging in combat operations to defend Canadian territory which is more important?" (Johnston et al., *The Army Culture-Climate Survey*).
- 30. Carol Off, *The Ghosts of Medak Pocket: The Story of Canada's Secret War* (Toronto: Random House, 2004).
- 31. Osiel, Obeying Orders.
- 32. Ibid.
- 33. The examples of disobedience that were not taken from published sources were related to the author by the individuals who witnessed them.
- T. Robertson, The Shame and The Glory: Dieppe (Toronto: McClelland and Stewart, 1962), 353.
- 35. A. R. Forand, G. Tousignant, C. Lemieux, and D. Matthews, "Ethical Dilemmas of Commanders on Operational Missions: Four views," in *The Many Faces of Ethics*:

- Defence Proceedings of the Conference on Ethics in Canadian Defence, October 24–25, 1996 (Ottawa: Department of National Defence, 1997), 30–42.
- 36. Operation ATHENA had two phases. In Phase I, it was essentially a peace-support mission in Kabul, where ISAF was concerned with ensuring security while the nascent Afghan government developed its constitution and held its first elections. In Phase II, Operation ATHENA moved to Kandahar Province to become the Canadian Forces' longest-running combat mission. (Reproduced from CEFCOM, http://www.cefcom.forces.gc.ca/pa-ap/ops/athena/index-eng.asp.)
- A. Day, "Somalia Redux? The Yahoo Defence, Terminal Bullshit Syndrome and the Myth of the Isolated Incident," in From the Outside Looking In: Media and Defence Analyst Perspectives on Canadian Military Leadership, ed. B. Horn (Kingston: Canadian Defence Academy Press, 2005), 149–51.
- J. R. P. French and B. Raven, "The Bases of Social Power," in *Group Dynamics*, eds.
 D. Cartwright and A. Zander (New York: Harper & Row, 1959).
- 39. Canadian Forces Leadership Institute, Leadership, 59.
- 40. Yukl, Leadership in Organizations.
- 41. Ibid., 97.
- D. J. Reimer, "Afterword," in Out-Of-The-Box Leadership: Transforming the Twenty-First-Century Army and Other Top-Performing Institutions, eds. J. G. Hunt, G. E. Dodge and L. Wong (Stamford, C.T.: JAI Press, 1999), 285–95.
- R. Pigeau and C. McCann, "Redefining Command and Control," in *The Human in Command: Exploring the Modern Military Experience*, eds. C. McCann and R. Pigeau (New York: Kluwer Academic / Plenum, 2000), 165.
- 44. W. M. Connor, "Establishing Command Intent A Case Study: The Encirclement of the Ruhr, March 1945," in *The Human in Command: Exploring the Modern Military Experience*, eds. C. McCann and R. Pigeau (New York: Kluwer Academic/ Plenum, 2000), 95.
- 45. Pigeau and McCann, "Redefining Command and Control," 163-84.
- R. Riley, "The Darker Side of the Force: The Negative Influence of Cohesion," *Military Review* LXXXI, no. 2 (2001): 66–72.
- 47. Winslow, "Misplaced Loyalties," 306; Bercuson, Significant Incident, 214.
- 48. For more on trust, see Chapter 7 of this publication.
- S. Stouffer, E. A. Suchman, L. C. Devinney, S. A. Star, and R. M. Williams, The American Soldier: Adjustment During Army Life. Studies in Social Psychology in World War II, vol. I (Princeton: Princeton U. P., 1949), 393.

- K. Farley and J. A. Veitch, "Measuring Morale, Cohesion, and Confidence in Leadership: What are the implications for leaders?" *The Canadian Journal of Police* and Security Services 1, no. 4 (2004): 353–64.
- 51. Ibid.
- 52. Wheeler, "Loyalty, Honor, and the Modern Military," 175.
- As cited in F. P. Manning, "Morale, Cohesion, and Esprit de Corps," in *Handbook of Military Psychology*, eds. R. Gal and A. D. Mangelsdorff (Chichester: John Wiley and Sons, 1991), 464.
- 54. Canadian Forces Leadership Institute, Leadership, 73.
- 55. Ibid., 72-3.
- "Royal Canadian Regiment Charter," Regimental Standing Orders (Victoria Barracks, Petawawa, Ontario, 2010), Chapter 1, Annex A.
- 57. Smith, Between Mutiny and Obedience, 3.
- 58. Reimer, "Afterword," 290.

CHAPTER 7:

TRUST IN MILITARY TEAMS

Megan M. Thompson, Barbara D. Adams, and Wayne Niven

Imagine soldiers being in the hot, sand-swept desert ... making final preparations for combat. They double-check their knowledge of the plan, their responsibilities, and their equipment to reduce the potential for mistakes. As they make these final preparations to step into harm's way, are they also reevaluating ... trust?

These lines might well strike a chord with many Canadian Armed Forces personnel who have been deployed. During these last moments of preparation, soldiers must reflect on the members of their team and their leader. In fact, it is difficult to think of another profession where relying on your comrades and leaders is more critical – that is what makes trust such an important part of the profession of arms.² Trust can be defined as "total confidence in the integrity, ability, and good character of another,"3 which allows team members to "suspend their questions, doubts, and personal motives and instead throw themselves into working toward team goals."4 In military operations, trust reassures soldiers that all reasonable efforts will be made to ensure their safety, and that the risks assumed, hardships endured, or sacrifices made, will be necessary and justified. It instils the confidence in soldiers that their commanders and their comrades in arms will watch their backs, doing their utmost to ensure their welfare. This is why trust is said to provide an important psychological safety net for activities that involve risk: Without trust, "orders may not be fully obeyed, nor will the interests of the unit be placed above individual interests." Even in less hostile circumstances, military operations depend on teamwork; they require competent mutual support under risky and uncertain conditions⁶ – as such, trust is fundamental to the profession of arms.

Modern military missions have increased the need for trust. Advances in technology allow operations to be carried out across wider areas of responsibility (AOR) than ever before, meaning that soldiers increasingly "operate independently, in small groups, and their behaviours cannot constantly be monitored, so their supervisors must trust them." Likewise, asymmetric conflicts and counterinsurgency (COIN) operations mean

that leaders and soldiers must trust each other to respond in the right way to a variety of threats across the spectrum of operations, and to rapidly changing circumstances.

It was this military relevance that led Defence Research and Development Canada (DRDC) Toronto to conduct research for the Canadian Army that investigates trust in section-level teams. Six studies have been conducted to assess the development of trust as well as the impact of violations on trust in military teams and unit leaders.⁸ These studies involved a total of 542 Regular Force and Primary Reserve Army personnel, representing a variety of military occupations, but mainly drawn from the infantry. Most participants were non-commissioned members, although 50 of them were Regular Force junior officers. A variety of methodologies were used to investigate trust, including surveys and scenario-based experimental designs using paper and pencil, and first-person-shooter game software methodologies.⁹ In this chapter, we look at the findings from these six studies and what it means for the CAF.

TRUST DEFINED

Trust is a complex thing. Rooted in our interdependence with others, trust involves a willingness to be vulnerable to another person (or entity) because we expect them to meet our needs rather than exploit our vulnerability. Trust always means some degree of risk because we grant it to others even when we cannot ensure that they will be responsive. ¹⁰

Trust can involve a rational assessment of the risks versus the benefits of trusting others based on our experience of them.¹¹ However, the vulnerability and risk inherent in trust point to its emotional component; so does the fact that trust is often expressed as a feeling of confidence in others concerning their future behaviour. In fact, trust has been referred to as the ultimate "leap of faith."¹² It is these four features—interdependence, vulnerability, risk, and uncertainty—that make trust so relevant to the military organization.

One important distinction concerning trust in a military context is that it may *not* be completely freely chosen, as it is in many other interpersonal

settings. That is because military personnel are assigned to a unit, fall within a chain of command, and they are tasked with particular activities by their superiors. In such a context, there is a decrease in the sense of

freedom to choose to remain interdependent and to assume risk. On the face of it, this fact makes some of the traditional behavioural outcomes used in trust research less relevant in an operational context (e.g., leaving a relationship or job). But this does not negate the importance

Trust is the foundation of what we do.

With our line of work we need a lot of trust, especially when handling live rounds.

Trust is something that has to be there at all times not one day in, and one day out. If a person can be trusted one day and not the other you as a person tend not to trust them at all.

or impact of trust among military personnel. At least one major study has shown that trust is related to intention to leave the U.S. military.¹³

In fact, low trust can be exhibited in a variety of indirect ways, even though orders are followed and the requisite behaviours are executed in a military setting. For instance, low trust can manifest in reduced confidence, cohesion and motivation, sa well as a greater resistance to an order, or minimal compliance with it. Similarly, a lack of trust can result in untimely responses, a reluctance to provide any but requested information, reduced priority being given to an activity among multiple demands, or a lack of compliance should the opportunity arise. Of course, some of these behaviours (e.g., longer response times) might not compromise day-to-day activities under normal conditions. But such behaviour can significantly reduce operational effectiveness, especially in complex and intense military operations.

Despite the apparent significance of trust for military effectiveness, relatively little research had been conducted on trust in the CAF. Yet the results of our first studies underscored the importance of trust in teams and leaders to Canadian soldiers.¹⁷

Trust is the foundation of what we do.

With our line of work we need a lot of trust, especially when handling live rounds.

Trust is something that has to be there at all times not one day in, and one day out. If a person can be trusted one day and not the other you as a person tend not to trust them at all.¹⁸

In fact, the soldiers who participated in these studies consistently rated trust in their team members and their team leaders as being "very" to "extremely" important.¹⁹

How does someone earn the trust of others? Trust is usually accorded to others if they demonstrate *competence* (i.e., level of technical skill and knowledge the other possesses), *predictability* (i.e., consistency in action), *integrity* (i.e., honour and honesty in thought and deed), and *benevolence* (i.e., genuine care and concern for others).²⁰

While somewhat related (e.g., higher assessments of competence are often made because those skills are consistently displayed, leading to higher assessments of predictability and so on), each of these trust dimensions is treated as distinct. For instance, one U.S. study revealed that trust in platoon leaders during combat operations in Iraq and in garrison was significantly associated with their subordinates' assessments of their leaders' competence and character (with character being a mixture of integrity and benevolence). Another study of Israel Defense Forces cadets showed distinct references to their respective team leader's competence, benevolence, and integrity. A similar pattern was also certainly evident across our Canadian Army samples. Infantry personnel's assessment of the trustworthiness of their section members and section leaders were consistently based upon the peers' and leaders' perceived competence, predictability, integrity and benevolence.

Understanding the distinctions between these aspects of trust also has practical implications because the demands of the situation most strongly influence judgments of trust in a particular setting.²⁴ On patrol, for instance, competence and predictability may be the most important attributes that soldiers require of each other, with benevolence perhaps playing more of a supporting role in that context.²⁵ Other situations may require integrity, rather than, say, benevolence (e.g., the firm but fair boss). The different dimensions of trust and its context-dependent nature were succinctly illustrated by one CAF member:

I think there are different types of trust in military situations; combat, personal, garrison. At all times you must always feel concern and have section integrity and competence. But during combat, belief in your section's competence, concern for your troops and predictability push themselves up to the top. Having those attributes are what makes a unit work like a machine.²⁶

Finally, understanding these distinctions is important for how we address problems that do arise. If we know, for example, that trust issues are related to a perceived lack of technical competence, we would look at different trust repair strategies than we would for integrity-related trust issues.

THE IMPACT OF TRUST ON TEAMS

Militaries should be interested in trust because high trust is associated with a variety of important team outcomes in both newly formed and existing teams and groups.²⁷ For example, high trust is associated with a stronger feeling of shared understanding and team-level identity, greater risk taking and increased effort to promote group welfare,²⁸ even in instances where team or group members are not co-located.²⁹ This last finding has a potential importance for future military missions where team members are connected remotely. Higher trust also promotes free communication flow³⁰ because there is less concern regarding sharing proprietary or sensitive information.³¹ Trust also reduces the incidence of conflict overall; and should conflict occur, it will be less intense because trust engenders more positive attributions.³² Potentially negative or ambiguous actions may then be interpreted in a constructive manner and may be associated with more stable relationships.³³

When trust is high, moreover, team members tend to focus on the task at hand instead of devoting time, effort and attention to monitoring relationships to ensure that their needs are protected – which is behaviour known as defensive monitoring.³⁴ Similarly, individuals are less preoccupied with "controls and protections against the possibility of betrayal, and the insistence on costly sanctioning mechanisms to defend their interests." In many cases, therefore, a lower reliance on procedures and controls also allows for more efficient and timely decisions and actions as well as the discovery

of mutually beneficial and integrative solutions.³⁶ Trust also increases the likelihood of (work) effectiveness by reducing overall mental effort.³⁷

Trust is particularly important and its effects most apparent under crisis conditions. In these cases, the reduction in cognitive effort directed toward monitoring other intentions and behaviours associated with higher trust levels³⁸ allows more attention to be directed at the crisis. Under these conditions, trust promotes continued communication, the sharing of scarce resources,³⁹ goodwill when unforeseen contingencies arise, and it facilitates mutual adjustment allowing for the synchronization of critical tasks.⁴⁰ With all of these attendant benefits, trust has been termed, not surprisingly, "a foundation of social order"⁴¹ and perhaps the "single most important element of a good working relationship."⁴² The psychologist Julian Rotter asserted that "the efficiency, adjustment and even survival of any social group depends upon the presence or absence of … trust."⁴³

Military research shows that higher trust levels are related to a number of things: greater team cohesion, higher morale, ⁴⁴ higher performance and achievement, ⁴⁵ greater citizenship behaviours, ^{46,47} a more positive command climate, ⁴⁸ lower unit attrition, ⁴⁹ greater perceived combat readiness, ⁵⁰ and to greater mutual influence between leaders and subordinates in garrison and in combat. ⁵¹ Higher levels of trust also mean that subordinates will be more likely to emulate the leader's positive behaviour and to internalize the leader's and the organization's values. ⁵²

Similarly, Canadian data⁵³ revealed that higher levels of trust in team members was associated with (a) higher perceived combat readiness;

Higher levels of trust in team members was associated with (a) higher perceived combat readiness; (b) greater perceived effectiveness in training and in-garrison settings; (c) greater ability to work as a team; as well as (d) higher team-level morale and cohesion.

(b) greater perceived effectiveness in training and in-garrison settings; (c) greater ability to work as a team; as well as (d) higher team-level morale and

cohesion. Results like these have led some researchers to conclude that trust is a fundamental enabler of military teams,⁵⁴ sentiments echoed in the CAF leadership doctrine:

Trust ... is positively related to individual and group performance, persistence in the face of adversity, the ability to withstand stress, job satisfaction, and commitment to continued service. A climate of trust ... is also positively related to such 'good soldier' qualities as conscientiousness, fair play, and cooperation.⁵⁵

BUILDING TRUST

There are two general models for the development of trust. In the *person-based* model, trust begins from an initial neutral point, because there is no experience on which to base an assessment. Trust develops over time and repeated experiences that demonstrate the competence, predictability, integrity and benevolence of a particular individual.⁵⁶ Accordingly, trust begins with small risks that test the benefits against the risks of trusting, with larger risks taken if the other continues to respond positively.⁵⁷ Over time, trust becomes based less on each interaction and more on underlying common attitudes and values.⁵⁸

The CAF leadership doctrine highlights the person-based model in its recommendations for effective trust building in a military environment.⁵⁹ It asserts that effective leaders:

- Demonstrate high levels of proficiency in the performance of core functions and take advantage of opportunities to enhance their professional expertise and competence.
- Exercise good judgment in decisions that affect others and do not expose people to unnecessary risks.
- Show trust and confidence in their subordinates by giving them additional authority and involving them in decisions where circumstances allow.
- Demonstrate concern for the well-being of their subordinates, represent their interests.
- Ensure they are supported and taken care of by the organization.

- Show consideration and respect for others, treating subordinates fairly without favour or discrimination.
- Focus on the mission, maintaining high standards as well as honest and open communications.
- Lead by example, sharing risks and hardships and refusing to accept or take special privileges.
- Keep their word and can be counted on to honour their obligations.⁶⁰

U.S. military research came to a similar conclusion. ⁶¹ The onus lies on military leaders to establish cooperative interdependence with their respective subordinates by emphasizing common values and interests, by sharing hardships and risks, and by information and resource sharing. Efforts like these should establish a leader's credibility – that is, such efforts should lead to assessments of competence and good character (essentially integrity and benevolence). The leader's credibility and integrity will instil trust in subordinates and a greater willingness to be vulnerable, following the leader into harm's way. ⁶² Ultimately, the Canadian doctrine is written for CAF leaders. ⁶³ But most of the recommendations apply to fostering trust among any group of team members.

It is worth singling out *competence* as a dimension of trust, because it has a specific meaning in the context of a military team. Military teams consist of increasingly complex and specialized personnel. But every member need not be proficient in every other member's skill set. Instead, the competent team member or team leader can do his/her assigned task professionally, understands and can assist others with their assigned duties, understands their own as well as others' strengths and weaknesses, and facilitates other team members in completing their functions or tasks. In other words, not everyone can be a sniper, so competence does not mean that every member must be able to take the shot; competence means that other members of the team are able to support the sniper in carrying out his/her responsibilities. Many military teams function in this interdependent manner. Team leaders need not be experts in every team member's skill

or capability. What *is* critically important, though, is that leaders set the conditions that allow each team member the opportunity to be effective – this way, the whole team benefits.

Although CAF infantry soldiers acknowledge the importance of experience and time with others in developing trust, they also acknowledge the high rate of personnel turnover, which routinely exists in small Army teams. High turnover often prevents the development of person-based trust, which means it might not be the best model for understanding military trust. 64 Soldiers' comments indicated that they had experienced personnel changes very frequently:

We have a lot of leaders that come and go. The problem is by the time you start to trust someone they're gone. Then you start all over again and so on.⁶⁵

I have only been employed in my present position for a short time, so therefore I do not know the people in my section very well, and they do not have much experience. Developing trust takes time and we often do not have this luxury.⁶⁶

In fact, more than 50% of the CAF Army personnel surveyed in garrison indicated that they had experienced changes in personnel assignments on their team in the previous three months. Only 6% of participants indicated that their teams had experienced no personnel changes in the past year. 67

If military team members do not usually have the time and experience with others necessary for developing person-based trust, what other factors might influence the decision to trust in a military team? A second model of trust development from the organizational literature is especially applicable in this case. As noted, levels of initial trust among surveyed CAF personnel were relatively high, even in the absence of prior knowledge of (or interaction with) other team members.⁶⁸

In these cases, trust is *category-based*, which means trust in another individual is based on defining summary information about that individual. These categories are often used by the trusting party to infer additional information about the member.⁶⁹ Applied to the profession of arms

then, military members trust a member based upon his/her regimental affiliation, training completed, or particular mission experience. In fact, military participants tend to expect more positive team outcomes (e.g., fewer casualties) when working with team members they believe are from their own (versus a different) regiment or culture.⁷⁰

All the same, there are some real limits to category-based trust – assuming that it is the right model for understanding trust in the CAF. Indicators of rank, reputation, and honours and awards, for example, are all distinctly associated with category-based trust. But CAF members rated these indicators as *least* important in a trustee relationship.⁷¹ Moreover, CAF members afforded higher levels of initial trust to their regimental team members; yet higher initial trust did not buffer a subsequent trust violation.⁷²

Category-based trust can also have a negative impact on initial levels of trust. For instance, some augmentees⁷³ and Primary Reserve members report that they often feel they have to work twice as hard to prove themselves to the members of the formed units they join, simply due to their Primary Reserve status.⁷⁴

Finally, it should be observed that person-based and category-based trust models are not mutually exclusive. Initial assessments of trust based upon a member's category or role does not mean the mechanisms of person-based trust will not eventually come into play, as greater opportunities for interaction arise and commonalities surface. Similarly, repeated trustworthy behaviour by an individual can overcome initial low-trust levels based on membership in groups that are perceived to have less status or value – in other words, the process underlying person-based trust can overcome the negative side of category-based trust. Nonetheless, role-based assumptions certainly act as an important filter for assessments of initial trust.

Trust is not static and can be subject to new information and revision over time. This is the reason models of trust often incorporate the assumption that individuals continue to "sample" outcomes, which comes down to monitoring the stability of the trusted party in various ways. ⁷⁵ Trust assessments can be revisited under several conditions. A major unexpected behaviour or minor but repeated inconsistencies in behaviour are

examples of conditions under which trust assessments can be revisited.⁷⁶ In a military context, new environments or situations – especially those associated with increased risk and interdependence – can cause individuals to reassess peers and leaders to determine whether they "meet the new levels of dependency."⁷⁷

A recent study showed that over half of U.S. soldiers who had returned from a deployment had re-evaluated their trust in their leaders prior to entering combat. They reflected on their leaders' behaviours over time, including during pre-deployment training and exercises, pre-combat training, mission rehearsals and pre-mission checks to determine whether the leaders had the competence and character to meet the demands of combat. Trust was revisited in this manner by 49% of these soldiers, with 35% of these re-evaluations being associated with a decrease in perceived leader competence. However, it is important to note that the trust some leaders established during training remained apparent to their troops in theatre, and at times even increased. Studies also showed that soldiers' ratings of deficits in attributes associated with integrity and benevolence contributed to a decrease in trust in combat settings. The leader's lack of experience in combat and inability to handle stress also correlated with decreased trust by subordinates.

Human Dimensions of Operations surveys⁷⁹ of Canadian expeditionary contingents also revealed that troops' levels of confidence in leaders vary across the course of a deployment.⁸⁰ Confidence levels are high during the pre-deployment phase, growing somewhat during the mission. Yet confidence levels show a significant decline post-deployment relative to in-theatre levels. On the face of it, at least, this finding is troubling. But it might reflect the high rate of postings that regularly occurs immediately following redeployment. In other words, soldiers are moved into different sub-units and subordinate organizations post-deployment — often with leadership that is less experienced and relatively new to the unit. Hence, the soldiers reporting lower levels of confidence post-deployment might not have had the chance to develop confidence in their new leaders. After all, confidence in the context of a deployment arises from extended joint training and being battle-tested together.

TRUST VIOLATION AND REPAIR

The fog of war with its attendant ambiguity, uncertainty, rapidly changing circumstances, and accompanying stress can all conspire to challenge trust.⁸¹ Real or perceived trust violations may occur because of actions committed or actions omitted. All of the following are common examples of violated trust: failing to fulfil a promise, changing rules "after the fact," showing favouritism, wrong or unfair accusations, and the disclosure of secrets.⁸² Trust can be damaged or irrevocably broken in cases where a trusted other seems to have deliberately and voluntarily breached important, mutually shared expectations,⁸³ and especially when violations contradict previous beliefs and expectations.⁸⁴

A variety of factors influence the impact and the consequences of trust violations. An individual's propensity to trust⁸⁵ and the relationship between the trustee and the trustor have been shown to influence both the perception of the violation⁸⁶ and the willingness to reconcile.⁸⁷ A prior good relationship does provide a protective element. But when a trust violation leads to feelings of betrayal, the impact can be more destructive in trusting relationships.⁸⁸ Also important is whether the violation is deemed likely to occur again in the future,⁸⁹ and the extent to which the parties are invested in maintaining that relationship.⁹⁰

The nature of the violation is also influential because some are simply more problematic to the long-term health of the relationship. Competence-based violations, for example, generally have fewer long-term consequences than integrity-based violations because we weight these violations differently.⁹¹ On one hand, individuals tend to weigh positive information about

Subordinates tend to be more vigilant about potential trust violations than are leaders, and they tend to recall more negative behaviours than their supervisors because dependency and vulnerability weigh more for subordinates.

competence more heavily than negative information; on the other hand, people tend to weigh negative information about integrity

more heavily than positive information. Thus, a single dishonest behaviour can suffice as clear evidence of low integrity, thereby undermining the perceived "core" of a relationship (e.g., common values).

One finding especially relevant to the military context is that trust violations are more profound in relationships in which one person has authority over the other. Military research shows that subordinates tend to be more vigilant about potential trust violations than are leaders, and they tend to recall more negative behaviours than their supervisors because dependency and vulnerability weigh more for subordinates. As well, these recollections have a larger effect on subordinates' levels of perceived trust in their superiors — a result that all military leaders should keep firmly in mind.

In the end, the cause attributed to the violation determines its impact and the degree to which trust can be restored. If an offence is deemed to be the result of stable internal characteristics of the offender, the impact will

be more influential and more likely to affect interpretations of other actions. Ultimately, if the offended party perceives

The most successful strategy for restoring trust involves a sincere and timely apology with a clear plan to address the violation so as to avoid its reoccurrence.

that the action reflects the offender's true "core" in such cases, the probability of reconciliation is small, especially when the offender was assumed to be able but unwilling to prevent the violation. The same holds when the violation of trust is deemed an opportunistic betrayal—that is, the offender seems to have betrayed the trusting party after weighing the benefits of betrayal against the benefits of maintaining the relationship. Conversely, if the cause of the behaviour is deemed to be transitory (e.g., based on circumstances) the betrayal will not be seen as harshly and reconciliation efforts are more likely.

Of course, there is no guarantee that trust can be repaired. But the most effective way to repair trust is for the offender to acknowledge that a violation has occurred. The offender also needs to determine (a) the nature of the violation (i.e., whether it is competence, integrity, benevolence or predictability based), (b) what caused it, and (c) how their actions contributed to the violation. Generally, the most successful strategy for restoring trust involves a sincere and timely apology with a clear plan to address the violation so as to avoid its reoccurrence. The property of the contributed to the violation of the violatio

Beyond the research described here, very few military studies have specifically addressed the issue of trust violations. However, a study of Israel Defense Forces cadets⁹⁸ revealed that two thirds of the examples they generated involved the cadet's feeling vulnerable to their supervisors and resulted in an erosion of the cadets' trust. This finding is consistent with our earlier discussion of the weighting of negative events over positive events in trusting relationships: negative events are more likely to be salient and easily recalled than the positive ones and subordinates will recall and assign more weight to negative trust-related events than will their leaders. Moreover, violations related to integrity and competence were the two trust dimensions most frequently reported when it comes to trust-eroding events; benevolence behaviours were most often cited in recalled events categorized as trust building.

Our own research with Canadian military reservists revealed that, as one would expect, teammates described as committing a trust violation were seen as less trustworthy, and military participants were also less willing to trust violators in the future. They also had lower expectations of these teammates, at least initially.⁹⁹ Not only did violations significantly reduce trust levels, but once the violation occurred, trust levels were never fully restored. Finally, results also showed that participants indicated a clear preference for repair attempts when the violator took full blame for the violation. It is also worth mentioning that benevolence and integrity violations were especially resistant to repair attempts.

TRUST AND THE WIDER ORGANIZATIONAL CONTEXT

At all levels, the stability of personnel is an organizational element that allows the shared common experiences crucial for developing and fostering a trusting military environment. Unfortunately, this appears to be most achievable in the CAF during force generation and operations, where personnel train and are deployed together for extended periods of time. As noted earlier, many of the Canadian Army personnel in this research commented on the effects of high in-garrison PERSTEMPO (personnel tempo, i.e., rates of personnel absences and turnover) due to support to individual training, mandatory professional development, and support

to force generation for other units. This can leave units that are not preparing for high-readiness tasks in a constant state of personnel flux, which can be especially visible at the junior section and platoon leadership levels.

Similarly, many CAF units are critically short of master corporals, sergeants and warrant officers, who provide that first essential level of leadership upon which the foundation of trust is anchored in the rest of the CAF. At present, no definitive answers concerning the full impact of this high PERSTEMPO on trust within a garrison setting can be provided. But the trust research would suggest that it likely reduces the level of trust that has been previously established. In addition – and perhaps most critically – little is known about how high in-garrison PERSTEMPO affects trust during subsequent operational phases. Although it will likely decrease with the end of the Afghanistan mission, its potential impact on future missions is important to keep in mind as well.

A further unknown is the impact of modern technologies on the development and maintenance of trust in the increasingly distributed missions. There is concern, for example, that the open communication on which trust has traditionally been instilled will be reduced with an overreliance on impersonal forms of communication, such as e-mail, which is a common complaint within some militaries. ¹⁰⁰ On the other hand, younger members are much more comfortable with various forms of social media, so it is not clear how much the concerns raised by past findings about face-to-face versus computer-generated interactions will impact trust. ¹⁰¹ Future studies in this area should shed some light on these new military realities.

TRUST WITHIN THE CONTEXT OF MULTINATIONAL OPERATIONS

Military operations are increasingly undertaken by multinational coalitions, which are typically conducted under the umbrella of NATO, the United Nations, or other international unions. Such operations often include overarching doctrine, policies and procedures, as well as mission-specific rules of engagement.¹⁰² All the same, each of these can be interpreted and applied differently, resulting in "inconsistent and

incongruent national interpretations of multinational policy, procedures, conduct and leadership." ¹⁰³

Differences in culture¹⁰⁴ can have a significant impact on how a coalition operates. Some researchers¹⁰⁵ have argued that culture underlies a wide range of behavioural, value and cognitive differences, which affect decision-making processes, communication, team norms, as well as risk perception and tolerance. These differences can in turn impede a shared

Trust in the profession of arms is military personnel's confidence that their peers and leaders have the skills, sense of duty and honour, and concern for their well-being.

understanding of mission-related planning and execution. The wider trust literature also suggests that culture has a significant influence on the information individuals

use to establish trust and "whether and how trust is established." ¹⁰⁶ Research also shows that people tend to trust more quickly those who are culturally similar to themselves. ¹⁰⁷ Thus, teams whose members come from diverse cultural backgrounds may face more challenges in building and maintaining trust. ¹⁰⁸

All of these factors may have significant implications for trust among coalition members. How is trust developed and maintained, for example, when shared understanding may be more difficult to achieve between different cultures? How do leaders and team members establish trust with others emerging from various cultures that have different ways of establishing and demonstrating trust? How can coalition teams and team leaders hold effective communication while developing and maintaining trust, when the commanding officer is reporting to a foreign coalition? Similarly, how can trust be developed and maintained when a coalition leader may or may not have the same training, experience and expectations as team members from another country? PERSTEMPO concerns are also an issue among coalition partners. Different rotation schedules between nations can result in a decrease of trust between partners as the relationships are in a constant transition. Moreover, these partners rarely have the opportunity to conduct formative force generation training together prior to deployment, so trust building must occur in theatre during combat operations. The results can mean the difference between

operational success and failure, between life and death. Because coalitions are expected to be the norm in today's armed forces, these fundamental questions must be addressed in future military research.

CONCLUDING REMARKS

Trust in the profession of arms is military personnel's confidence that their peers and leaders have the skills, sense of duty and honour, and concern for their well-being that they will watch their backs and be there when

they needed them. This chapter looked at the impact of trust within teams and its importance in the profession of arms. It also discussed how trust plays a role

Trust will continue to be a fundamental enabler in all military operations in light of the future security environment, which is expected to be increasingly volatile, uncertain, complex, and ambiguous.

in a range of important operational and organizational outcomes. Taken together, the evidence points to trust as a foundational element in military teams. We saw why military team members, commanders and military organizations should be concerned with promoting and maintaining trust within their ranks: trust is necessary for optimizing military team performance and effectiveness. There is little doubt that trust will continue to be a fundamental enabler in all military operations in light of the future security environment, which is expected to be increasingly volatile, uncertain, complex, and ambiguous. 109

ENDNOTES

- P. J. Sweeney, "Do Soldiers Reevaluate Trust in Their Leaders Prior to Combat Operations?" Military Psychology 22 (2010): 70.
- J. Shay, "Trust: Touchstone for a Practical Military Ethos," in Spirit, Blood and Treasure: The American Cost of Battle in the 21st Century, ed. D. E. Vandergriff (Novato, CA: Presidio Press, 2001), 3.
- 3. J. J. Collins and T. O. Jacobs, "Trust in the Profession of Arms," in *The Future of the Army Profession*, ed. L. J. Matthews (Boston: McGraw Hill Higher Education, 2002), 40.
- K. T. Dirks, "Trust in Leadership and Team Performance: Evidence from NCAA Basketball," Journal of Applied Psychology 85 (2000): 1011.
- P. J. Sweeney, V. Thompson, and H. Blanton, "Trust and Influence in Combat: An Interdependence Model," Journal of Applied Social Psychology 39, no. 1 (2009): 235.
- I. Van der Kloet, J. L. Soeters, and K. Sanders, "Development of Trust among Soldiers on a Deployment Mission," Small Wars and Insurgencies 15 (2004): 131–57.
- 7. Van der Kloet, Soeters, and Sanders, "Development of Trust," 131.
- 8. B. D. Adams and R. D. G. Webb, Model of Trust Development in Small Teams, DRDC Contract Report 2003-016 (Toronto: Defence Research and Development Canada, 2003); B. D. Adams, L. E. Bruyn, and G. Chung-Yan, Creating Measures of Trust in Small Military Teams, DRDC Contract Report 2004-077 (Toronto: Defence Research and Development Canada, 2004); B. D. Adams and J. A. Sartori, Validating the Trust in Teams and Trust in Leaders Scales, DRDC Contract Report 2006-008 (Toronto: Defence Research and Development Canada, 2006); B. D. Adams, S. Waldherr, J. Sartori, and M. Thomson, Swift Trust in Distributed Ad Hoc Teams, DRDC Contract Report 2007-139 (Toronto: Defence Research and Development Canada, 2007); A. R. Blais and M. M. Thompson, The Trust in Teams and Trust in Leaders Scale: A Review of Their Psychometric Properties and Item Selection, DRDC Toronto Technical Memorandum 2009-161 (Toronto: Defence Research and Development Canada, 2009); A. L. Brown, B. A. Adams, J. J. Famewo, and C. L. Karthaus, Trust in Culturally Diverse Teams, DRDC Contract Report 2008-097 (Toronto: Defence Research and Development Canada, 2008).
- 9. "First person shooters (FPS) are games in which a user interacts with the game world through the eyes of a virtual character (the 'first person') and fires weapons (the 'shooter') in an attempt to destroy other virtual characters that are controlled by either other human players or a computer (the latter are called bots)." Quoted from M. Claypool, K. Claypool, and F. Damaa, "The Effects of Frame Rate and Resolution on Users Playing First Person Shooter Games," 2www.cs.wpi. edu/~claypool/papers/fr-rez/paper.pdf.

- J. Holmes, "Trust and the Appraisal Process in Close Relationships," in Advances in Personal Relationships: A Research Annual, vol. 2, eds. W. Jones and D. Perlman (London: Jessica Kingsley, 1991), 57–104; R. Mayer, J. Davis, and F. Schoorman, "An Integrative Model of Organizational Trust," Academy of Management Review 20 (1995): 709–34.
- H. Abodor, "A Decision Based Explanation of Trust in Interfirm Alliances," in Current Topics in Management, vol. 3, eds. M. A. Rahim, R. Golembiewski, and K. Mackenzie (Pitscataway: Transaction – Rutgers U. P., 2003), 143–62.
- Holmes, "Trust and the Appraisal Process," 57–104; S. Boon and J. Holmes, "The Dynamics of Interpersonal Trust: Resolving Uncertainty in the Face of Risk," in *Cooperation and Prosocial Behavior*, eds. R. Hindle and J. Groebel (New York: Cambridge U. P., 1991), 167–82.
- 13. Collins and Jacobs, "Trust in the Profession of Arms," 39–58. See also Adams and Sartori, *Validating the Trust in Teams*.
- 14. K. T. Dirks and D. L. Ferrin, "The Role of Interpersonal Trust in Organizational Settings," *Organization Science* 12 (2001): 450–67.
- 15. Collins and Jacobs, "Trust in the Profession of Arms," 39–58.
- 16. Sweeney, Thompson and Blanton, "Trust and Influence in Combat," 235-64.
- 17. See Adams and Webb, *Model of Trust Development*; Adams, Bruyn and Chung-Yan, *Creating Measures of Trust.*
- Anonymous research participants in Adams, Bruyn, and Chung-Yan, Creating Measures of Trust.
- 19. Adams and Webb, *Model of Trust Development*; Adams, Bruyn and Chung-Yan, *Creating Measures of Trust*.
- 20. On these terms, see Holmes, "Trust and the Appraisal Process," 57–104; A. Costa, R. Roe, and T. Taillieu, "Trust within Teams: The Relation with Performance Effectiveness," European Journal of Work and Organizational Psychology 10 (2001): 225–44; D. Rousseau, S. Sitkin, R. Burt, and C. Camerer, "Not so Different After All: A Cross-Discipline View of Trust," Academy of Management Review 23 (1998): 393–404.
- 21. Sweeney, Thompson and Blanton, "Trust and Influence in Combat," 235–64.
- 22. Competence was reflected in the following: leadership, decision making, instruction, and ability. Benevolence was reflected in the following: giving or withholding help, encouragement, support, and sensitivity to the cadet's needs, involvement with the team, availability, and approachability. Integrity was reflected in the following: promise keeping, fairness or discrimination, taking responsibility for mistakes, and honesty or dishonesty. See Y. Lapidot, R. Kark, and B. Shamir, "The Impact of Situational Vulnerability on the Development and Erosion of Subordinates' Trust in a Formal Leader," The Leadership Quarterly 18 (2007): 16–34.

- 23. See Adams, Bruyn and Chung-Yan, Creating Measures; Adams and Sartori, Validating the Trust in Teams. See also Blais and Thompson, The Trust in Teams.
- 24. Holmes, "Trust and the Appraisal Process," 57-104.
- 25. Sweeney, "Do Soldiers Reevaluate Trust," 70-88.
- Anonymous research participant in Adams, Bruyn and Chung-Yan, Creating Measures.
- E.g., R. Lewicki and B. Bunker, "Developing and Maintaining Trust in Work Relationships," in *Trust in Organizations: Frontiers of Theory and Research*, eds. R. Kramer and T. Tyler (Thousand Oaks: Sage, 1996), 114–39; Mayer, Davis, and Schoorman, "An Integrative Model of Organizational Trust," 709–34.
- G. Bigley and J. Pearce, "Straining for Shared Meaning in Organization Science: Problems of Trust and Distrust," Academy of Management Review 23 (1998): 405–21.
- M. B. Brewer and N. Miller, *Intergroup Relations* (Pacific Grove: Brooks/Cole Publishing, 1996); P. Hinds and M. Mortensen, "Understanding Conflict in Geographically Distributed Teams: An Empirical Investigation," *Organization Science* 16 (2005): 290–307.
- D. E. Zand, "Trust and Managerial Problem Solving," Administrative Science Quarterly 17 (1972): 229–39.
- R. Krishnan, X. Martin, and N. G. Noorderhaven, "When Does Trust Matter to Alliance Performance?" Academy of Management Journal 49 (2006): 894–917.
- 32. See A. Benton, E. Gelber, H. Kelley, and B. Liebling, "Reactions to Various Degrees of Deceit in a Mixed-Motive Relationship," Journal of Personality and Social Psychology 12 (1969): 170–80; S. L. Robinson, "Trust and Breach of the Psychological Contract," Administrative Science Quarterly 41 (1996): 574–99; T. Simons and R. Peterson, "Task Conflict and Relationship Conflict in Top Management Teams: The Pivotal Role of Intragroup Trust," Journal of Applied Psychology 85 (2000): 102–11.
- 33. B. Uzzi, "Social Structure and Competition in Interfirm Networks: The Paradox of Embeddedness," Administrative Science Quarterly 42 (1997): 35–67; A. Zaheer, B. McEvily, and V. Perrone, "Does Trust Matter? Exploring the Effects of Interorganizational and Interpersonal Trust on Performance," Organization Science 9 (1998): 141–59.
- See S. Currall and T. Judge, "Measuring Trust between Organizational Boundary Persons," Organizational Behavior and Human Decision Processes 64 (1995): 151–70; D. McAllister, "Affect- and Cognition-Based Trust as Foundations for Interpersonal Cooperation in Organizations," Academy of Management Journal 38 (1995): 24–59.
- 35. T. R. Tyler and R. M. Kramer, "Whither Trust?" in *Trust in Organizations: Frontiers of Theory and Research*, eds. R. M. Kramer and T. R. Tyler (Thousand Oaks: Sage, 1996), 4. See also P. Bromiley and L. L. Cummings, "Transaction Costs in

- Organizations with Trust," in *Research on Negotiations in Organizations*, vol. 5, eds. R. Bies, B. Sheppard, and R. Lewicki (Greenwich, CT: JAI Press, 1995), 219–47; R. Dore, "Goodwill and the Spirit of Market Capitalism," *British Journal of Sociology* 34 (1983): 459–82.
- R. E. Walton and R. B. McKersie, A Behavioural Theory of Labor Negotiations: An Analysis of a Social Interaction System (New York: McGraw-Hill, 1965).
- 37. B. McEvily, V. Perrone, and A. Zaheer, "Trust as an Organizing Principle," *Organization Science* 14 (2003): 91–103.
- 38. Ibid.
- A. K. Mishra, "Organizational Responses to Crisis: The Centrality of Trust," in Trust in Organisations, eds. R. M. Kramer and T. R. Tyler (London: Sage, 1996), 261–87.
- 40. Krishnan, Martin, and Noorderhaven, "When Does Trust Matter," 894-917.
- 41. R. J. Lewicki, D. McAllister, and H. Bies, "Trust and Distrust: New Relationships and Realities," *The Academy of Management Review* 23 (1998): 438.
- 42. R. Fisher and S. Brown, *Getting Together: Building Relationships as We Negotiate* (London: Penguin, 1988), 107.
- 43. J. B. Rotter, "A New Scale for the Measurement of Interpersonal Trust," *Journal of Personality* 35 (1967): 651.
- R. Cassel, "Building Trust in Air Force Leadership," Psychology: A Journal of Human Behavior 30 (1993): 4–15.
- 45. L. Ivy, A Study in Leadership: The 761st Tank Battalion and the 92nd Division in World War II (Fort Leavenworth: United States Army Command and General Staff College, 1995).
- 46. R. J. Deluga, "The Relation between Trust in Supervisor and Subordinate Citizenship Behavior," *Military Psychology* 7 (1995): 1–16.
- 47. A worker's voluntary behaviours that benefit others or the organization include conscientiousness and dedication, professionalism, helpfulness, and courtesy.
- 48. A. Cox, *Unit Cohesion and Morale in Combat: Survival in a Culturally and Racially Heterogeneous Environment* (Fort Leavenworth: United States Army Command and General Staff College, 1996).
- 49. K. Thomas and B. Barios-Choplin, Effective Leadership in TPU's: Findings from Interviews in 16 Units (Monterey: Naval Postgraduate School, 1996).
- B. Shamir, E. Brainin, E. Zakay, and M. Popper, "Perceived Combat Readiness as Collective Efficacy: Individual- and Group-Level Analysis," *Military Psychology* 12 (2000): 105–19.

- 51. Sweeney, Thompson and Blanton, "Trust and Influence in Combat," 235-64.
- 52. Ibid.
- 53. Adams and Sartori, Validating the Trust in Teams.
- See Deluga, "The Relation between Trust," 1–16; Shamir et al., "Perceived Combat Readiness," 105–19; K. Scull, Cohesion: What We Learned from COHORT (Carlisle Barracks: United States Army War College, 1990).
- Canadian Forces Leadership Institute (CFLI), Leadership in the Canadian Forces: Doctrine (Kingston: Canadian Defence Academy – Canadian Forces Leadership Institute, 2005), 53.
- 56. See Holmes, "Trust and the Appraisal Process," 57–104; Mayer, Davis, and Schoorman, "An Integrative Model of Organizational Trust," 709–34; H. H. Kelley and J. W. Thibaut, *Interpersonal Relations: A Theory of Interdependence* (New York: John Wiley and Sons, 1978); Sweeney, "Do Soldiers Reevaluate Trust," 70–88.
- 57. Y. Lapidot, R. Kark, and B. Shamir, "The Impact of Situational Vulnerability on the Development and Erosion of Subordinates' Trust in a Formal Leader," *The Leadership Quarterly* 18 (2007): 16–34; Lewicki and Bunker, "Developing and Maintaining Trust," 114–39.
- 58. Holmes, "Trust and the Appraisal Process," 57–104; Mayer, Davis, and Schoorman, "An Integrative Model of Organizational Trust," 709–34; R. J. Lewicki and C. Wiethoff, "Trust, Trust Development, and Trust Repair," in *The Handbook of Conflict Resolution: Theory and Practice*, eds. M. Deutsch and P. T. Coleman (San Francisco: Jossey-Bass, 2000), 86–107.
- J. M. Stouffer, B. A. Adams, J. Sartori, and M. M. Thompson, "Trust," in *The Military Leadership Handbook*, eds. B. Horn and R. W. Walker (Toronto-Kingston: The Dundurn Group Publishers/Canadian Defence Academy, 2008), 525–42.
- 60. Excerpt from CFLI, Leadership in the Canadian Forces, 5.
- 61. Sweeney, Thompson and Blanton, "Trust and Influence in Combat," 235-64.
- 62. Ibid.
- CFLI, Leadership in the Canadian Forces: Leading People (Kingston: Department of National Defence, 2007).
- 64. Adams and Webb, Model of Trust Development.
- Anonymous research participant in Adams, Bruyn, and Chung-Yan, Creating Measures.
- 66. Ibid.
- 67. Ibid.

- R. M. Kramer, "Trust and Distrust in Organizations: Emerging Perspectives, Enduring Questions." Annual Review of Psychology 50 (1999): 569–98.
- 69. Ibid.
- 70. Adams et al., Swift Trust in Distributed Ad Hoc Teams.
- 71. Adams and Webb, Model of Trust Development.
- 72. Adams et al., Swift Trust in Distributed Ad Hoc Teams; Brown et al., Trust in Culturally Diverse Teams.
- 73. An augmentee is an individual military member who is temporarily assigned to a unit to fill personnel shortages or when an individual with specialized knowledge or skill sets is required.
- M. M. Thompson and M. A. M. Gignac, "The Experience of Canadian Forces Augmentees," in *The Human in Command: Peace Support Operations*, eds. P. Essens, A. Vogelaar, E. Tanercan, and D. Winslow (Amsterdam: Mets and Schilt/KMA, 2002), 235–63.
- 75. Sweeney, "Do Soldiers Reevaluate Trust," 70.
- U. Singh and K. B. L. Srivastava, "Interpersonal Trust and Organizational Citizenship Behavior," *Psychological Studies* 54 (2009): 65–76.
- 77. Sweeney, "Do Soldiers Reevaluate Trust," 86.
- 78. Ibid. See also Van der Kloet, Soeters, and Sanders, "Development of Trust," 131–57.
- 79. See Chapter 1 of this publication for further information on HDO surveys.
- P. J. Murphy and K. M. J. Farley, "Morale, Cohesion, and Confidence in Leadership: Unit Climate Dimensions for Canadian Soldiers on Operations," in The Human in Command: Exploring the Modern Military Experience, eds. C. McCann and R. Pigeau (New York: Kluwer Academic/Plenum, 2000), 311–32.
- 81. See Chapter 2 of this publication for more on operational stressors.
- 82. D. E. Bailey, "Out of Sight, Out of Sync: Understanding Conflict in Distributed Teams," *Organization Science* 14 (2003): 615–32.
- 83. R. J. Lewicki and E. C. Tomlinson, "Trust and Trust Building. Beyond Intractability," in *Conflict Research Consortium*, eds. G. Burgess and H. Burgess (Boulder: University of Colorado, 2003).
- 84. Bigley and Pearce, "Straining for Shared Meaning," 405–21.
- 85. Lewicki and Tomlinson, "Trust and Trust Building."
- 86. Stouffer et al., "Trust," 525–42; S. R. Robinson and E. W. Morrison, "The Development of Psychological Contract Breach and Violation: A Longitudinal Study," *Journal of Organizational Behavior* 21 (2000): 525–46.

- A. R. Elangovan and D. L. Shapiro, "Betrayal of Trust in Organizations," Academy of Management Review 23 (1998): 547

 –66.
- M. Yakovleva, R. R. Reilly, and R. Werko, "Why do We Trust? Moving Beyond Individual to Dyadic Perceptions," *Journal of Applied Psychology* 95 (2010): 79–91.
- 89. Elangovan and Shapiro, "Betrayal of Trust in Organizations," 547-66.
- R. L. Moreland and J. G. McMinn, "Gone But Not Forgotten: Loyalty and Betrayal Among Ex-Members of Small Groups," *Personality and Social Psychology Bulletin* 25 (1999): 1476–86.
- 91. E. C. Tomlinson, B. R. Dineen, and R. J. Lewicki, "The Road to Reconciliation: Antecedents of Victim Willingness to Reconcile Following a Broken Promise," Journal of Management 30 (2004): 165–87; A. D. Gershoff, "You Done Me Wrong And that Ain't Right: The Role of Betrayal in Consumer Behaviour," Advances in Consumer Research 31 (2004): 339–42.
- Lapidot, Kark, and Shamir, "The Impact of Situational Vulnerability," 16–34; E.
 J. Finkel, C. E. Rusbult, M. Kumashiro, and P. A. Hannon, "Dealing with Betrayal in Close Relationships: Does Commitment Promote Forgiveness?" *Journal of Personality and Social Psychology* 82 (2002): 956–74.
- 93. Lapidot, Kark, and Shamir, "The Impact of Situational Vulnerability," 16-34.
- 94. J. J. Koehler and A. D. Gershoff, "Betrayal Aversion: When Agents of Protection become Agents of Harm," *Organizational Behavior and Human Decision Processes* 90 (2003): 244–61.
- 95. Yakovleva, Reilly, and Werko, "Why do We Trust?" 79–91.
- 96. Tomlinson, Dineen, and Lewicki, "The Road to Reconciliation," 165-87.
- 97. Gershoff, "You Done Me Wrong," 339–42; Finkel et al., "Dealing with Betrayal," 956–74; Koehler and Gershoff, "Betrayal Aversion," 244–61.
- 98. Lapidot, Kark, and Shamir, "The Impact of Situational Vulnerability," 16–34.
- Adams et al., Swift Trust in Distributed Ad Hoc Teams; Brown et al., Trust in Culturally Diverse Teams.
- 100. Collins and Jacobs, "Trust in the Profession of Arms," 39-58.
- 101. R. Prindle, "Social Media as a Military Communication Competency," *International Journal of Humanities and Social Sciences* 1 (2011): 203–07; H. Enwald, N. Hirvonen, and T. Luoto, "Examining the Uses of Internet and Social Media among Men at Military Conscription Age" (paper presented at the ISSOME Information Science and Social Media 2011 Conference, Turku, Finland, August 24–26, 2012).
- 102. A. M. Fitz-Gerald, "Multinational Land Force Interoperability: Meeting the Challenge of Different Cultural Backgrounds in Chapter VI Peace Support Operations," *Choices: National Security and Interoperability* 8, no. 3 (2002): 1–22.

- 103. Ibid., 13.
- 104. Culture is understood to mean the system of values, customs and beliefs which are shared among a group of people and serve to distinguish it from another group. See P. Doney, J. Cannon, and M. Mullen, "Understanding the Influence of National Culture on the Development of Trust," Academy of Management Review 23 (1998): 601–20.
- 105. H. A. Klein, A. Pongonis, and G. Klein, "Cultural Barriers to Multinational C2 Decision Making" (paper presented at the Command and Control Research and Technology Symposium CCRTS: Making Information Superiority Happen, Monterey, CA, October 24–26, 2000).
- 106. Doney, Cannon, and Mullen, "Understanding the Influence of National Culture," 601.
- 107. O. Branzei, I. Vertinsky, and R. D. Camp, "Culture-Contingent Signs of Trust in Emergent Relationships," *Organizational Behavior and Human Decision Processes* 104 (2007): 61–82.
- 108. Fitz-Gerald, "Multinational Land Force Interoperability," 1–22. For more information on cultural intelligence, see Chapter 8 of this publication.
- 109. J. Stiehm, U.S. Army War College: Military Education in a Democracy (Philadelphia: Temple U. P., 2002).

CHAPTER 8:

CULTURAL INTELLIGENCE

Nick Chop and Karen D. Davis

The Canadian Armed Forces face an increasingly complex battlespace, from the tactical level soldier right up to the strategic level commander. The days when two or more large military forces face off on a foreign stretch of land are no longer on the horizon. But the modern battlespace has become more complex. There are many actors and the nature of the engagement changes rapidly. Technological advancement coupled with the impact of global change on countries, their associated militaries, and an increasing number of insurgent groups, require today's military personnel to expand their situational awareness (SA) so they can still act when standard operating procedures no longer suffice. Both historical and modern military personnel receive training in topics associated with their specific trade, their specific environment, or the specific operation they will partake in. In layperson's terms, this is referred to as "tools in your toolbox." Like civilian tradespersons, military members acquire specific training or "tools" throughout their careers to perform their jobs to the fullest. Without the right tools, it is difficult or even impossible to get the job done.

Modern soldiers must learn much more than did their historical counterparts in conflicts like Korea, Vietnam, and more recently Afghanistan – and they need more tools in their toolbox to achieve not only their leadership goals,

but success in the mission. The tools include in-depth knowledge of the military capabilities and limitations of the enemy, the influences that

Modern soldiers — especially leadership — must effectively integrate cultural intelligence (CQ) into their daily routine.

directly or indirectly shape the battlespace in which they operate, and an understanding of how intelligence-led operations will help them achieve their goals. Within the operational sphere, an essential part of intelligence will be information on local culture and its multitude of roles. In fact, modern soldiers – especially leadership – must effectively integrate cultural intelligence (CQ) into their daily routine.

In a nutshell, this means developing an understanding of four things: (a) what is culture and why it is important to mission success; (b) how to

think and act in challenging and unfamiliar situations; (c) the importance of cultural knowledge, what one needs to know, and how to access it; and (d) how to use leadership skills and cultural knowledge to make decisions that will contribute to the success of the mission. This chapter will address each of these mission-related questions from both a historical and theoretical perspective.

WHAT IS CULTURE?

So how does one integrate CQ into a daily routine? The answer to that question begins with an understanding of what the word *culture* means. Culture is defined by a multitude of components, which are themselves sometimes defined in different ways. Nonetheless, some of the predominant factors that constitute a culture include: (1) historical and present day beliefs; (2) behaviours; (3) social groups; (4) material possessions; and (5) religion. These are among the main factors that contribute to the values shared by groups of people, which shape the ways they behave and the assumptions they make about others and about how the world does (and ought to) work.

Leaders must not allow themselves to develop a false sense of cultural understanding. Reading a book or attending a one-day training session is not enough to understand a country's culture – it is just the beginning. The foundation leaders need to build their cultural understanding is that a "culture" is like a system: it is a human activity that is very complex, with a huge number of factors that either directly or indirectly interact with it and within it. These interactions are rarely equal in importance and sometimes a small change can cause instability. Culture is a dynamic system, meaning that it is always active and the whole is greater than the sum of its individual parts. Successful solutions to cultural problems usually arise from within it, rather than being imposed from outside by members of another culture.²

THE "ABCs" OF CULTURAL INTELLIGENCE

Alexei Gavriel, an applied anthropologist and CAF intelligence specialist, defines CQ as "an intelligence discipline which analyses cultural knowledge

to assess or interpret how it impacts, influences and affects the operating environment, adversary, and operational planning considerations." Further, according to Gavriel,

Cultural Intelligence does not produce cultural knowledge but rather seeks to understand the effects of culture and the human terrain. Cultural knowledge can be used to assess the effectiveness of adversary and coalition information operations, gauge local reaction or potential fallout from coalition potential courses of action, understand how local social organization can impact operations, how local dynamics may fuel conflict, or even how local values and perceptions shape the local actors' views of coalition forces and operations. This is what Cultural Intelligence is in reality. The use of secret handshakes or codewords that, when used by an outsider, forces the natives to make you their king is only a reality which exists in movies.⁴

Understanding culture does not happen with a list of dos and don'ts, does not privilege those in positions of authority, and is not based on caricatures or outsider stereotypes. CQ revolves around, interacts with, and fluctuates with the people involved with that culture. For this reason, it is easy to misunderstand what CQ really is. It is not a secret code that, when mastered, allows a person to control a particular population. Nor is it cultural awareness, meaning factual cultural knowledge. Because culture is dynamic, it is not always predictable. That is why CQ is an intelligence discipline, rather than a set of facts. And like any other type of intelligence, it is the result of the analysis of information in a way that makes it useful for a specific purpose. Within the military context, CQ is the analysis of a specific culture (or sub-cultures) in order to determine how that (sub)culture will impact the battlespace. This analysis will greatly affect strategic, operational and tactical level planning.⁵

There are many direct or indirect culture-related factors that impact the battlespace. These factors can make the difference between a successful and unsuccessful military operation. At the strategic level, for example, a CQ analysis: (a) helps commanders understand how insurgents model their

social structures and ideologies; (b) impacts commanders' understanding of the adversary's decision-making cycle; and (c) provides commanders with the knowledge to help rebuild a nation that reflects local values. At the operational level, CQ: (a) helps define the human terrain of the commander's area of responsibility; (b) helps civilian-military co-operation (CIMIC) teams understand how indigenous values shape dispute resolution; and (c) provides a clearer picture of what socio-cultural factors fuel the particular conflict at hand. At the tactical level, CQ: (a) provides a clear picture of how to identify friends from foes; (b) prevents future problems

CQ is referred to as the ability to recognize the shared beliefs, values, attitudes and behaviours of a group of people.

such as turning potential friends into enemies through cultural insensitivity; and

(c) teaches how to convey proper respect and appreciation for the local culture. Finally, CQ helps psychological operation teams build successful information operations (IO) campaigns that will resonate with locals.

For the purpose of this chapter and by general definition within the CAF academic community, CQ is referred to as the ability to recognize the shared beliefs, values, attitudes and behaviours of a group of people. Most importantly, it becomes essential to effectively apply this knowledge toward a specific goal or range of activities. In the CAF Joint Intelligence Doctrine, cultural intelligence is defined as sociological intelligence. That is, intelligence concerning social and cultural factors, including population parameters, ethnicity, social stratification and stability, public opinion, education, religion, health, history, language, values, perceptions and behaviour.⁸

HISTORICAL CULTURAL INTELLIGENCE

CQ has been used to analyze enemy forces for centuries – some analyses have been more successful than others. The Peloponnesian War (431 to 404 BC) was fought between Sparta and its allies and Athens and its empire. Both Athenians and Spartans used CQ to take advantage of their opponent's cultural "weaknesses," while playing to their own cultural "strengths" in the battlespace. During the planning for the battle of Lesbos, for example, the Athenians decided to attack during a religious festival

in order to achieve greater surprise. Although those plans were thwarted by a messenger that warned the Mytileneans of Lesbos in advance, the attack did catch the Mytileneans before their supplies and archers had arrived, all of their defences were mounted and their Peloponnesian and Boetian alliances were formed. The Athenians did fear that they were not strong enough to fight all of Lesbos; however, the Mytileneans sought an armistice. The Athenian analysis of the culture provided information that increased their chances of a successful campaign. In this sense, they conducted what we now know as CQ.

In more recent times, CQ has led to some very successful outcomes. During the First World War, Colonel T. E. Lawrence – more commonly known as Lawrence of Arabia – used his knowledge of Arabian culture and geography to gain trust in the Middle East. More importantly, he gained the trust of Feisal, the third son of Sharif Hussein bin Ali, King of Hejaz. Lawrence thus became a major player in organizing and leading the Arab revolt against Turkish nationalism and the Ottoman Empire. The success of this event gives support to the notion that CQ can facilitate relationships that can directly impact operational success within the battlespace.¹¹

"MIRROR IMAGING" IS NOT CULTURAL INTELLIGENCE

When trying to understand other cultures it is easy to get caught up in what is known as "mirror-imaging." Mirror-imaging happens when a person assumes that someone from another culture will respond the same way they would in a similar situation. ¹² This error can affect analysis when there are gaps in information or intelligence because people have a tendency to fill those gaps with what they perceive to be the correct information. ¹³ As an example of mirror-imaging, one might say something like the following: "If I were the Afghanistan National Army Commander for the south..." or "If I were the President of Afghanistan, I would simply sit down with the Taliban and...." This type of thought process regarding culture leads to dangerous assumptions, because people in other cultures simply do not think exactly like we do. We might look at almost the same act in almost the same way and speak a common language, but our cultural surroundings will always affect how we act and react to circumstances.

Mirror-imaging is a common analytical error. It reportedly played a role in the intelligence community's failure to warn of imminent Indian nuclear weapons testing in 1998. After leading a U.S. government team that analyzed this particular situation, Admiral Jeremiah recommended more thorough involvement of outside expertise whenever there is a major transition that may lead to policy changes, such as the Hindu nationalists' 1998 election victory and ascension to power in India.¹⁴ Another good example happened just prior to the start of World War II. Great Britain's Prime Minister Neville Chamberlain's Munich Pact with Adolph Hitler in 1938 showed a lack of CQ information and understanding. Not understanding the German dictator's perspective and ultimate goal, Chamberlain believed that accepting Hitler's claims to predominantly German-populated areas of Czechoslovakia would bring world peace and prevent another world war. However, it actually resulted in the opposite. This so-called weak reaction to the fanatical Nazi military movement emboldened Hitler to invade Poland in 1939. Once this was achieved, Hitler's ultimate dream of uniting all of Europe under the Third Reich became, in his eyes, obtainable, and the opponents with whom he had dealt with at Munich could not stop his war plans of conquering Europe. 15

Most of us are familiar with the observation made famous by Sir Winston Churchill, "Those that fail to learn from history are doomed to repeat it." In order to avoid this type of recurrence, leaders must consult with outside experts when making significant judgments that depend upon the knowledge of a foreign culture. Military intelligence analysts often spend little or no time living in and absorbing the culture of the countries they analyse. But trained intelligence analysts and perceptive leaders know this and seek out the appropriate personnel and/or agencies to fill the knowledge gap. If leaders fail to understand the foreign culture, they will likely end up attempting to complete their situational awareness through mirror-imaging. And that may lead to a risk of false or incomplete situational awareness, leading to a multitude of problems.

CQ IGNORANCE

Over the past ten years, military-relevant cultural understanding has slowly but surely been acknowledged as an important component of operations. For the most part, military cultural training for soldiers has tended to be simplified as lists of "dos and don'ts," without the in-depth understanding required for mission success. But cultural understanding requires more than memorizing lists of dos and don'ts. Moreover, the geopolitical landscape of the world will always change. When the next security threat occurs, therefore, we will require expertise in different languages and CQ capabilities. Learning by trial and error is not a viable approach for today's militaries.

History teaches us the inherent dangers of ignoring CQ. The United States' involvements in the Vietnam War as well as the Canadian and U.S. involvement in Afghanistan illustrate some of these dangers. Like Vietnam, the Afghanistan conflict is predominantly a rural peasant insurgency. Lightly equipped guerrilla forces, namely the Viet Cong (VC) and the Taliban, lived and mingled with the civilian populace. This posed a significant problem for Western forces. Neither the VC nor the Taliban were necessarily popular with the civilian populace, nor did they support these groups as their national ruling parties. Nonetheless, both wars saw the enemy infiltrating deep into allied lines. Interpreters were either forced to inform (or were willingly informing) the enemy of Canadians' (or Americans', in the case of the Vietnam War) every move – sometimes through the use of fear, bribery or torture.

In the early stages of both conflicts, allied forces failed to place enough importance on CQ within the battlespace. In Vietnam, for example, culturally insensitive behaviour by U.S. troops coupled with the random use of fire support turned many rural villages into enemy recruiting centres. The civilian populace of both countries became tired of the careless use of military firepower which killed innocent civilians. Moreover, both wars saw the enemy receiving support from outside agencies. In the case of Vietnam, the VC received funds as well as a variety of weapons and support from the Soviet Union and China. Similarly, the Taliban in Afghanistan

received support from the Pakistan Army (and its Inter-Services Intelligence division), wealthy Saudis and other suspected countries.

There is one so called "positive" difference between these two conflicts. The coalition forces in Afghanistan aim to establish a legitimate government to prevent the Taliban's political control of the country. However, the unpopularity of the Afghanistan War in North America and the associated costs burdening our governments make it impossible to accomplish this aim in the allotted time, because, simply put, it is almost impossible to change the cultural mindset of an entire society in a short time. But attention to CQ teaches us that the Afghanistan government's legitimacy does not necessarily have to be at the national level alone.

Historically, rural areas in Afghanistan have had tribal governance with stability coming from a web of tribal agreements, affiliations and networks. If western leaders approached the situation through CQ by embracing the Afghan people's perception of legitimate governance, they might be able to effect positive change in Afghanistan within a shorter timeframe. If allowed to flourish, culturally linked government policies in Afghanistan could begin to re-establish stability in local areas that prevailed prior to the Soviet invasion in 1979. This means that the local village elders, for example must be allowed to reassert their previous authority, rooted in their local culture. Hindsight revealed that the tragedy of U.S. failure in Vietnam stemmed from the fact that there was no political solution. In modern day Afghanistan, however, a political solution is possible. It is also more likely realizable if we do not impose Western solutions to their challenges. History has proven time and time again that this approach does not work.¹⁷

INCREASING THE CHANCES OF MISSION SUCCESS

The French Military Experience

In modern times, France has successfully deployed approximately 8,000 troops around the world. These successful deployments are due, in part, to how France interacts with foreign populations and military organizations.

This is based on 100 plus years of lessons learned from anthropology and military experiences in the nineteenth and twentieth centuries throughout Europe, Asia and Africa. The French military defines operational culture as follows: "The understanding of foreign cultural norms, beliefs and attitudes: it is an operationally relevant field guide used by general officers as well as infantry squad leaders to navigate a complex human terrain." ¹⁸

French forces have successfully applied CQ by studying the host country's customs, history, economic issues, social norms and traditions. This "digging for the truth" mindset has become part of their military's culture-based learning process and is a direct result of the lessons learned in over two centuries of counter-guerrilla conflicts (known today as irregular or hybrid warfare). French military experiences led to two counter-intuitive principles: (1) effective leaders of small combat arms units must think like human intelligence collectors, counterpropaganda operators, non-governmental organization workers and negotiators; and (2) the combat arms battalion is the nexus of operational cultural training and education for complex military and non-military tasks.¹⁹

During the French colonial expansion in Africa and Indochina during the second half of the nineteenth century, French military officers returning from various campaigns would travel to Paris and report their observations and lessons learned to the politicians, journalists, geographers and ethnoanthropologists. This was due to the common interest in unknown populations among military and civilian departments. This shared interest encouraged military personnel to take detailed notes and share their cultural awareness with these groups. ²⁰ Colonial officers would even host French anthropologists overseas who would assist in the study of violence among non-state groups. This combined effort paved the way for continuing ethno-anthropological²¹ studies on the colonial army throughout the nineteenth and twentieth centuries. ²²

French anthropologists also became more familiar with the planning and execution of military campaigns. In 1899, building on 20 years of colonial campaign experiences, senior French officers had established the first principles of expeditionary operations. Expanding this further,

they would eventually call for permanent stationing of units overseas to help develop staff and small-unit leaders with expertise in foreign cultures and languages, and in mediation and negotiation techniques. This was the foundation for integrating operational culture into irregular warfare concepts, and in so doing increasing the chances of successful operations within the battlespace.

Modern Counterinsurgency in Iraq

Counterinsurgency (COIN) forces and government agencies of today must learn from history and actively work to counter the insurgent attempts to coerce or persuade the population. James Russell, a professor at the U.S. Naval Postgraduate School, wrote a study on CQ's affects on COIN operations titled "Iraq, COIN and Culture: 172nd Stryker Operations in Mosul, Iraq, 2005-2006."²³ Russell's research included a detailed look at how the U.S. ground forces' COIN operations evolved from their arrival on the battlefield up to the year 2007. Initially, they had no joint doctrine to guide operations, no initial plan for post-conflict, confused national level leadership, broken interagency process, and very poor civil-military relations.

Russell's research included a series of battalion and brigade studies of tactical operations that started in the fall of 2005 and continued until the spring of 2007. This included analysis from cases, commander interviews, unit products and various other reports. So how does this relate to CQ? At the strategic level, interaction between our leaders and theirs is put into operation through various organizations on both sides. Thus, each side's cultural beliefs are maintained; neither side's beliefs act as a unified cultural belief system for both groups. So, military operations and its associated organizations will exhibit different cultural and learning styles. This meeting of cultural approaches produces innovations that eventually work their way into combat operations. Each side might have a different style to a given operation – similar in its goals yet unique in its implementation. Such operations are ad hoc and depend on the cultural context; thus, the same style can be successful in one culture, yet unworkable in another.

This last point is an important aspect of CQ-informed operations: one winning style does not necessarily guarantee that it will be the best solution in a similar context. What worked in Mosul, Iraq might not work in Tal Afar or in a Christian village east of the Tigris. This understanding of the importance of the cultural context is essential for collecting CQ. For example, Mosul city sits in the middle of many ethnic, tribal and religious fault lines in Iraq: the Kurdish people to the north and east, Sunni Arabs to the west, and a mixture of Christian communities to the east. Naturally, this has caused Mosul to be divided into sub-cultures as well. The insurgency within Iraq is also divided along similar fault lines in the north and with regional twists. An example of this is the city of Tal Afar, a short distance from Mosul. Tal Afar consists of more than 70 sub-tribes. Looking at these two examples amplifies the importance of how culture and cultural intelligence provides a better understanding of local dynamics within the battlespace, especially when applied to COIN operations.²⁴

CONCLUDING REMARKS

The leaders of today's armed forces face a very complex battlespace from the tactical level soldier right up to the strategic level commander. Technological advancements and ongoing changes to the global landscape, its associated military conflicts, and the increased number of insurgent groups require the military personnel of today to expand their

CQ. Leaders can understand why CQ of the battlespace is necessary, if they look at military conflicts throughout history. Moreover, there is no simple list of "dos and don'ts"

Historical and current aspects of a culture must be thoroughly analyzed before we can make a sound assessment of how the culture will affect the battlespace for both the planning and execution of operations at all levels of command.

that allow someone to fit seamlessly into another culture — this is not what CQ means. Like any other form of intelligence, CQ is a discipline that requires leaders and their intelligence staff to conduct proper research and analysis.

Historical and current aspects of a culture must be thoroughly analyzed before we can make a sound assessment of how the culture will affect

the battlespace for both the planning and execution of operations at all levels of command. But leaders must avoid making assumptions, and be prepared to adapt both their interpretations and behaviours to the context and circumstances in which they are operating. Assumptions, after all, are not based on analysis. They are generally just our beliefs about a particular culture and how we *think* individuals from that culture will respond to different situations, and what we *assume* is the correct response to those cultural behaviours. Consequently, leaders at all levels must do their homework, continue to learn and adapt, and put forth every effort to be non-biased and keep an open mind. In the end, this will only increase the chances for a sound understanding of the culture and for overall mission success.

ENDNOTES

- 1. *Merriam-Webster OnLine*, s.v. "culture," http://www.merriam-webster.com/dictionary/culture.
- For discussion of culture and complexity see B. Bentley, "Systems Theory, Systems Thinking and Culture," in *Cultural Intelligence and Leadership: An Introduction for Canadian Forces Leaders*, ed. K. D. Davis (Kingston: Canadian Defence Academy Press, 2009), 1–8.
- 3. A. J. D. Gavriel, "Red, White, or Pink SA? Understanding the Need for a Holistic Approach to Culture in Military Intelligence," *The Canadian Army Journal* 13 no. 1 (2010): 74. Master Corporal Alexei J. D. Gavriel conducts research on the integration of socio-cultural knowledge into contemporary military operational planning and intelligence and has also conducted ethnographic research at a variety of remote locations in order to gain a better understanding of CQ. In addition, he has studied indigenous reindeer herders in the Russian tundra, Roma-Gypsy ghetto dwellers in Eastern Slovakia, and nationalist-separatists in the former Yugoslavia.
- 4. A. J. D. Gavriel, "What is Cultural Intelligence?" Cultural-Intelligence.Net, retrieved June 28, 2012. Available at http://www.cultural-intelligence.net/site/what_is_cultural_intelligence.html.
- B. Beardsley and K. D. Davis, "Applying Cultural Intelligence in the Canadian Forces," in *Cultural Intelligence and Leadership: An Introduction for Canadian Forces Leaders*, ed. K. D. Davis (Kingston: Canadian Defence Academy Press, 2009), 97–117.
- A. J. D. Gavriel, "Cultural/Ethnographic Intelligence Support to COIN Ops" (paper presented at the Culture and Conflict Review: Conference on Culture, Cultural Modelling, Counterinsurgency and Conflict Behavior, Monterey, Naval Post Graduate School, March 24, 2009).
- Dr. Emily Spencer, "Crucible of Success: Applying the Four CQ Domain Paradigm", CFLI Technical Report, July 2007, 6 & 11. K. D. Davis, "Cultural Foundations," Cultural Intelligence and Leadership: An Introduction for Canadian Forces Leaders, ed. K. D. Davis (Kingston: Canadian Defence Academy Press, 2009), 41–52.
- 8. Department of National Defence, *Joint Intelligence Doctrine Manual*, Publication B-GJ-005-200/FP-000 (Ottawa: Department of National Defence, 2003).
- 9. D. Kagan, The Peloponnesian War (Toronto: Penguin, 2003), 101.
- 10. Ibid.
- 11. O. K. Strader, Culture: The New Key Terrain Integrating Cultural Competence into JIPB (Fort Leavenworth: School of Advanced Military Studies, United States Army Command and General Staff College, 2006).
- 12. This also reflects what those who study culture describe as "ethnocentrism," defined as "the tendency for individuals to place their own group (ethnic, racial, or cultural) at the center of their observations of others and the world. People tend

- to give priority and value to their beliefs, attitudes, and values, over and above those of other groups" [P. G. Northouse, *Leadership: Theory and Practice*, 5th ed. (Los Angeles: Sage, 2010), 337].
- 13. R. J. Heuer Jr., *Psychology of Intelligence Analysts* (Washington: Center for the Study of Intelligence, Central Intelligence Agency, 1999), 70.
- 14. Ibid., 181.
- W. Murray, Strategy for Defeat: The Luftwaffe, 1933–1945 (Maxwell Air Force Base: Air University Press, 1983), 28.
- 16. Although made famous by Sir Winston Churchill, the origins of this observation have also been credited to Spanish philosopher George Santayana or British statesman and philosopher Edmund Burke.
- 17. T. H. Johnson and M. C. Mason, "Refighting the Last War Afghanistan and the Vietnam Template," *Military Review* (Nov-Dec 2009): 2–14.
- H. Boré, "Complex Operations in Africa: Operational Culture Training in the French Military," Military Review (Mar-Apr 2009): 65.
- 19. Ibid.
- 20. Ibid., 66.
- 21. This term is used by retired French Army Colonel Henri Boré in describing a series of activities in which cultural observations and perceptions were shared among various groups in the late nineteenth century, including French military officers H. Boré, "Complex Operations in Africa," *Multinational Operations Newsletter* December (2009): 10–2; H. Boré, "Complex Operations in Africa: Operational Culture Training in the French Military," *Military Review* (Mar-Apr 2009): 65–71. Although not defined by Boré, enthno-anthropology, as the study of the ways people in different cultures perceive each other, has been the focus of study and philosophical debate. From this perspective, sharing and comparing different cultural interpretations, would expand the general definition of anthropology, which can include ethnographic study from a single perspective. For a discussion of ethno-anthropology, see, for example, the discussion of various interpretations in W. Haase and M. Reinhold, *The Classical Tradition and the Americas* (Berlin: de Gruyter & Co., 1993), 160–1.
- 22. H. Boré, "Complex Operations in Africa," *Multinational Operations Newsletter* December (2009): 10–12.
- J. Russell, "Iraq, COIN and Culture: 172nd Stryker Operations in Mosul, Iraq, 2005–2006" (paper presented at the Culture and Conflict Review: Conference on Culture, Cultural Modelling, Counterinsurgency and Conflict Behavior, Monterey, Naval Post Graduate School, March 24, 2009).
- 24. Ibid.

CHAPTER 9:

POST-DEPLOYMENT REINTEGRATION AND ITS RELATIONSHIP WITH PERSONAL AND ORGANIZATIONAL OUTCOMES

Ann-Renée Blais, Megan M. Thompson, Donald R. McCreary, and Deniz Fikretoglu¹

Early research suggested that post-deployment reintegration was largely a negative experience. Soldiers returning from deployment felt psychological isolation, helplessness and powerlessness; they commonly reported generalized physical complaints and exhibited antisocial behaviour, hostility, alcohol and drug dependence, risky behaviours, suicides, accidents and, of course, post-traumatic stress disorder (PTSD).² The picture that emerged from these early studies seemed compelling. Yet this early picture came from military psychiatric literature. It was based on the accounts of U.S. Vietnam War veterans diagnosed with PTSD who were recalling their post-deployment experiences sometimes years after their return.³ As important as it was, the early research on post-deployment reintegration echoed the reports of those most adversely affected by their deployments. However, it likely tells us much less about the reintegration experiences of the majority of returning personnel, who do not suffer long-term and severe psychiatric disorders.

Nonetheless, returning home after a prolonged absence – even one not associated with the intense psychic scars associated with PTSD – can present a challenge for many military personnel. Children will have matured and spouses and families may have developed new interests and routines to which the returning military member must adjust. Some military personnel report increased frustration with bureaucracy and decreased work challenges relative to the activity and purpose they felt during their deployment. The post-deployment period can also be associated with significant organizational disruptions (e.g., unit reconfigurations, postings); and if military members return (or are posted) to a unit where other members had not been deployed, they may face a lack of support from their colleagues.

Soldiers experiencing difficulties re-adjusting to life in garrison due to any of these factors may develop lasting negative attitudes toward their work.

These attitudes can contribute substantially to negative assessments of the military. This can lead to an erosion of their commitment to the military and can increase their likelihood of leaving the organization. Thus, all reintegration issues have the potential to affect the Canadian Armed Forces as an organization, including its operational effectiveness. 8

In short, returning from a mission can be a negative, disruptive and stressful experience for military personnel at the family, personal and work levels – and this can interact with and intensify any left-over stress associated with events that took place during deployment.⁹ But a bad outcome need not always, or even usually, be the case.

Other research offers a much more optimistic counterpoint, highlighting the positive aspects and experiences with deployment and subsequent return home. ¹⁰ Military personnel often describe the happiness associated with reconnecting with their families and some report that the tour has strengthened their closest relationships. ¹¹ Other positive effects include enhanced levels of self-esteem derived from the completion of a difficult task under challenging circumstances, as well as personal and professional growth. ¹²

Many members have also reported a renewed sense of purpose and meaning in their jobs, as well as in life in general. At least one study shows that a positive homecoming and the post-deployment period is a critical stage of the deployment cycle.

community is related to better post-deployment psychosocial adjustment.¹⁴ Taken together, then, this literature suggests that homecoming and the post-deployment period is a critical stage of the deployment cycle.¹⁵ The success and quality of reintegration might counteract the aftermath of acute stress reactions experienced in deployment by diminishing them or preserving them.¹⁶

POST-DEPLOYMENT REINTEGRATION: KEY DIMENSIONS

Prior to the Human Dimensions of Operations Project,¹⁷ most of the research on post-deployment reintegration had been conducted outside of Canada. While this research was informative, we really needed to

better understand the CAF experience. In 1999, Thompson and Gignac collected preliminary data from a focus group study of 30 male and female CAF personnel who had been deployed to various mission theatres and who, on average, had served in the CAF for 16 years. This preliminary research sought to document the impact of military missions on CAF personnel, especially with respect to the experiences of augmentees to military missions. ²⁰

Part of those discussion sessions focused specifically on participants' homecoming experiences and the reintegration process after an operation. Based on the data, four broad domains were identified as a starting point for characterizing post-deployment reintegration. The first of the domains, *cultural reintegration*, referred to returning from settings of extreme deprivation into the land of the "haves." The second major domain to emerge involved reintegration back into *family life*. The third, *personal reintegration*, had to do with aspects of "feeling like oneself again." The fourth domain, *work reintegration*, concerned adjusting back to life in garrison and deployment work experiences.

Participants in these focus groups often talked about the joys as well as the strains of readjusting to family life. ²¹ They recounted having to adjust to life back home, but also reported having a greater appreciation of the freedoms and benefits of life in Canada. Similarly, they also spoke of how they had developed personally and professionally as a result of their mission, even though they often recalled difficult work experiences. The results led us to propose an initial conceptual model of the structure of post-deployment reintegration, which encompassed distinct positive and negative aspects in each of the cultural, family, personal, and work domains. This initial structure more closely reflected our initial focus group results, and allowed military members to endorse the extent to which the positive *and* the negative aspects of each of the domains were part of their experience in each area, rather than artificially limiting their responses to whether the experiences were mostly positive *or* negative.

Our next step was to conduct an empirical test of the conceptual model against the experiences of a majority of CAF personnel by first collecting

a variety of statements from CAF personnel involved in the focus groups that reflected the potential positive and negative experiences associated with each of the four post-deployment reintegration domains. Wherever possible we used verbatim statements from focus group participants. Individual statements from pre-existing reintegration measures that were associated with these domains were also selected for the test.²² This process led to the creation of an initial pool of 64 statements,²³ with approximately equal numbers of positive and negative statements for the cultural, family, personal, and work-related reintegration domains.

DEVELOPING THE ARMY POST-DEPLOYMENT REINTEGRATION SCALE

The 64 statements collected to test the four-domain reintegration model became the first 64-item version of the Army Post-deployment Reintegration Scale (APDRS), which was incorporated into various iterations of the HDO Survey. The new scale was first completed in 2003 by 374 CAF members who had recently served in Afghanistan. Almost all participants were men (95%); most (94%) were non-commissioned members between the ages of 27 and 36 (40%), and had completed high school as their highest level of education (53%). It was a first tour for 22% of the participants. Thirty-six percent had been on two tours during their careers and 42% had been on three or more. About 40% of participants had children.

The results of the first test of the new scale largely supported the theoretical model of post-deployment reintegration: most statements tapped into the positive and negative aspects of the four domains (i.e., cultural, family, personal, and work). Specifically, members agreed with the positive and negative experiences in a fairly independent fashion. For example, members who had experienced high levels of positive reintegration experiences (e.g., in the family domain) could have experienced high levels of negative reintegration experiences in the same domain. Moreover, it appeared that post-deployment experiences were correlated across domains. Those who reported higher levels of positive family-related post-deployment reintegration experiences, for example, also tended to report higher levels of positive cultural, personal and work-related post-deployment reintegration experiences.

But there were problems with this first attempt at testing the model. Some overlap arose between statements intended to address the negative cultural and personal domains. For example, the items "I no longer feel safe" (negative cultural) and "I have been confused about my war experiences" (negative personal) measured the same underlying theoretical concept. As well, there was a lack of alignment in a few additional ones. For example, the positive personal statements appeared to tap into three separate domains. This problem was addressed by revising the original statements — for instance, rewording a few and adding several new ones.²⁴

In 2004, the newly modified version of the APDRS was tested with 474 CAF members who had recently served in Afghanistan.²⁵ Almost all men (90%) completed the 81-item APDRS as part of the post-deployment HDO about six months after their return. Most participants (83%) were non-commissioned members between the ages of 27 and 36 (46%), and had completed high school as their highest level of education (46%). It was a first tour for 39% of the participants. Twenty-nine percent had been on two tours and 32% had been on three or more during their careers. About 45% of participants had children.

Recalling our original problem with overlap between domains, we created a sub-sample to test the four domains of the reintegration model (i.e., cultural, family, personal, and work) as well as its two dimensions (i.e., positive and negative). Our analyses of the sub-sample suggested that significant overlap still existed between the cultural and personal reintegration domains. To solve this problem, we picked out the best-suited cultural statements and reassigned them to the positive and negative dimensions of the personal domain. The result was a three-domain model of post-deployment reintegration experiences. The six statements that best represented each of the six factors were then selected (i.e., three domains – family, personal, and work – each with two dimensions, negative and positive). Table 9.1 depicts the resultant 36-item APDRS.

NEGATIVE	POSITIVE			
FAMILY				
There has been tension in my family relationships.	I feel closer to my family.			
I feel the tour has had a negative impact on my personal life.	I have become more responsive to my family's needs.			
I feel my family has had difficulty understanding me.	I have become more involved in my family relationships.			
The tour has put a strain on my family life.	I have realized how important my family is to me.			
Getting back into sync with family life has been hard.	I have a greater willingness to be with my family.			
I feel my family resented my absence.	I more fully appreciate the time I spend with my family.			
PERSONAL				
Putting the events of the tour behind me has been tough.	I am more aware of problems in the world.			
I have had difficulty reconciling the devastation that I saw overseas with life in Canada.	I have a better understanding of other cultures.			
I have been confused about my experiences during the tour.	I have realized how well off we are in Canada.			
It has been hard to get used to being in Canada again.	I have a greater appreciation for the value of life.			
Being back in Canada has been a bit of a culture shock.	I have a greater appreciation for the conveniences taken for granted in Canada.			
Focusing on things other than the tour has been difficult.	I more fully appreciate the rights and freedoms taken for granted in Canada.			
WORK				
I find military bureaucracy frustrating.	I am glad I went on tour.			
I feel my current work duties are less meaningful.	I am applying job-related skills I learned during my deployment.			
Day to day work tasks seem tedious.	I am better able to deal with stress.			
Garrison life has been boring.	I feel I am a better soldier.			
I feel a lower sense of accomplishment at work.	I am proud of having served overseas.			
I have considered leaving the military.	I have developed stronger friendships.			

TABLE 9.1: LIST OF NEGATIVE AND POSITIVE STATEMENTS IN THE FAMILY, PERSONAL AND WORK DOMAINS $^{26}\,$

We performed another analysis on a second sub-sample and found support for a six-factor model of post-deployment reintegration experiences, with negative and positive dimensions of the family, personal, and work domains. Two important findings emerged from the second sub-sample. First, we found that negative and positive reintegration experiences were independent of one another. Members who had experienced high levels of positive reintegration experiences (e.g., in the work domain) could experience high levels of negative reintegration experiences in the same domain, at the same time. Second, members reported experiencing more positive than negative reintegration experiences. In other words, the average responses to the three positive reintegration dimensions were significantly higher than the average responses to the three negative ones.

These results were reassuring because members' endorsement of the negative experiences was lower than their endorsement of the positive experiences. This indicated that the post-deployment reintegration period is not mostly defined by negative situations that could be detrimental to both the individual and the organization. The pattern of results also suggested a number of recommendations for interventions that might improve the post-deployment reintegration process. Of course, the effectiveness of the following recommendations should be tested before implementation on a wide basis. They are provided here simply as food for thought.

The first recommendation is that interventions target negative and positive post-deployment reintegration experiences independently. This means trying to reduce members' negative experiences while also trying to increase their positive experiences. Second, it might be possible to tailor an intervention so that it leverages the positive experiences in any domain as a starting point for reducing negative experiences in the same domain. For instance, a CAF member might have a greater willingness to be involved in family relationships; this could be used as a starting point for getting back into sync with family life. The third recommendation is that interventions might need to target (where applicable) each of the three domains (i.e., family, personal, and work) separately for optimal impact. One way or another, we recommend that questions about interventions be tested using rigorous scientific methods: Should interventions be domain specific? Can an improvement in one domain be transferred to another? Does a strength-building approach work better than a deficit-reduction model?

POST-DEPLOYMENT REINTEGRATION EXPERIENCES: ORGANIZATIONAL AND PERSONAL OUTCOMES

The last section focused on the existence of the three domains of post-deployment reintegration – personal, family and work. But whether and how family, personal and work-related post-deployment reintegration experiences relate to organizational and personal outcomes has been the more fundamental question for researchers. In particular, commitment to the organization is a big concern for militaries, though few studies have examined it.²⁷ Research that has been conducted shows affective commitment²⁸ to be positively related to a number of important personal variables: military job satisfaction and performance, unit cohesion and morale, career prospects and retention intentions, adjustment to army life, perceived combat readiness, leadership evaluations, and psychological well-being.²⁹ Continuance commitment,³⁰ in contrast, has been either negatively or only weakly related to job performance and psychological well-being.³¹

Occupational stress researchers have also recognized the importance of job-related affect (i.e., emotions about one's job). Negative and positive job-related affect are distinct indicators of job satisfaction, well-being, and strain at work. Little research has been conducted on military samples. But positive work-related affect tends to be associated with positive job outcomes and negative affect with negative outcomes in most occupations—and this holds for occupations that are similar to the military, such as police forces.³²

We investigated the connection between post-deployment experiences and personal and organizational outcomes through the 2005 administration of the post-deployment HDO Survey, which included the 36-item version of the APDRS.³³ The survey was administered to 519 CAF members who had recently served in Afghanistan, about six months after their return. Almost all of them were men (91%) and most were NCMs (87%) between the ages of 27 and 36 (41%), and had completed high school (46%) as their highest level of education. This was a first tour for 35% of the sample; 26% had been on two tours, and 39% had been on three or more tours during their careers. About half (48%) had children.

We assessed organizational outcomes in four ways – that is, we used four other scales in the HDO Survey to test how the APDRS predicted organizational outcomes. The Stress in Military Service Questionnaire measured the extent to which participants had experienced five types of military-related occupational stressors during the previous month (i.e., combat, external conditions, family, service/career and work). The Military Commitment Scale assessed their affective and continuance commitment to the military. The Job-Related Affective Well-Being Scale captured the frequency with which participants had experienced a variety of negative and positive emotions at work. Participants also rated their likelihood of leaving the CAF within the next year. Lastly, the survey included a version of the Symptoms Checklist that captured self-reported level of psychological distress (e.g., symptoms of depression and anxiety) and the PTSD Checklist, which assesses 17 symptoms of PTSD. Both assessments referred to symptoms that occurred in the past month.

We found that the APDRS scores correlated with the organizational outcomes in predicted ways. As expected, higher work-negative scores were associated with a larger number of occupational stressors, particularly service or career and work stressors, significantly higher levels of negative job-related affect, and a significantly higher likelihood of leaving the CAF within the next year. On the other hand, higher work-positive scores were related to significantly higher levels of affective commitment and positive job-related affect. Much the same held for personal outcomes. As expected, higher scores on the negative-personal aspects of post-deployment reintegration were correlated with higher levels of self-reported distress and symptoms of PTSD.

Now that we had exposed the connection between post-deployment reintegration experiences, on the one hand, and organizational and personal outcomes on the other, we had to determine at what point negative reintegration experiences resulted in negative personal and organizational outcomes. Once this benchmark was identified, we could develop a screening tool that could be used to inform leadership of possible problems.

THE POST-DEPLOYMENT REINTEGRATION SCALE: SCREENING TOOL TO ASSESS ONGOING REINTEGRATION CONCERNS

Post-deployment reintegration is important to both the organization and the person, so it is critical that the reintegration experiences of military members returning from operations be continually monitored. The purpose of monitoring is to determine whether deployed members are falling within "normal" parameters and to identify individual members who might be reporting higher than expected negative or lower than expected positive post-deployment reintegration experiences (or both).

The first step in such a screening procedure is to determine what is "normal." Normative data is usually used to establish a benchmark for interpreting particular scores. 38 Using normative data means, for example, comparing a particular unit's scores for APDRS to the CAF average (i.e., normal) score. How a unit compares to the normal score can inform commanders about possible problems. Higher scores on the negative and lower scores on the positive dimensions, for example, might suggest to commanders that they need to increase awareness of existing post-deployment support programs in their unit. The same information might suggest to leadership that they need to develop new support programs and services for returning members.

Members seem to have more positive than negative experiences in the post-deployment period.

Norms were created for the CAF using APDRS data from 3,006 CAF members

collected through post-deployment HDO surveys.³⁹ So far, these normative values⁴⁰ suggest lower scores on the negative domain and higher scores on the positive one for the whole deployed CAF population. Put another way, CAF members seem to have more positive than negative experiences in the post-deployment period.

We anticipated that some commanders would want to compare the postdeployment reintegration experiences of members in their units to the experience of specific subgroups in the CAF. For example, they might want to compare the post-deployment reintegration experiences of Primary Reserve members in Unit A to those in the entire CAF. In light of this, we also created norms for specific groups of interest: Regular Force and Primary Reserve members, men and women, augmentees and non-augmentees, Anglophones and Francophones.⁴¹

Statistical and visual comparisons of the scores of these subgroups to the scores of the CAF as a whole did not reveal any striking differences on the APDRS. This suggested that (on average) none of these CAF subgroups are particularly at risk of having greater negative or fewer positive experiences in the post-deployment period.

No obvious at-risk groups for negative post-deployment experiences in the CAF were identified in our normative analysis. But the small number of members who scored very high on the negative (and/or very low on the positive) dimensions of the APDRS⁴² has been the focus of follow-up analyses. For example, 77 out of 3,006 (2.6%) members were found to score in the highly above average range on the work-negative scale of the APDRS. This suggested extremely negative work reintegration experiences for this small group of CAF members. Similarly, 147 (4.9%) scored in the highly above average category on the family negative scale and 143 (4.8%) members scored highly above average on the personal negative scale. This suggests extremely negative family and personal post-deployment reintegration experiences for these small groups of members.

Let us recall the overall objective. The aim was to pinpoint the factors associated with very high scores on the negative dimensions (and those associated with very low scores on the positive ones). Our preliminary findings suggest that, for any given domain, those members scoring very high on the negative dimensions and very low on the positive ones are not the same members. With this data, the next logical step is to identify the socio-demographic, military and psychological-organizational factors associated with being in these extreme score groups. Ultimately, such information should enable the CAF to provide additional services to ensure successful reintegration experiences for all members returning from a deployment. And finding answers to this question is one of our ongoing objectives.

CONCLUDING REMARKS

The post-deployment period is a critical one. The nature and quality of negative experiences can be an important mechanism in determining

Focusing on the negative aspects of the reintegration experience can be detrimental to our understanding of it. Military members report many positive reintegration experiences and these positive aspects of reintegration might, in some cases, outweigh the negative ones.

whether the events and stress of a tour are dealt with or remain. As a result, the majority of reintegration and post-deployment adaptation research has focused on the

experiences of personnel who are struggling the most to cope with their deployment experiences. But it is equally important for militaries to understand how generalizable these results are to the majority of military personnel deployed overseas. Similarly, focusing on the negative aspects of the reintegration experience can be detrimental to our understanding of it. Military members report many positive reintegration experiences and these positive aspects of reintegration might, in some cases, outweigh the negative ones.

In light of the positive side of reintegration, we developed a measure of post-deployment reintegration experiences entitled the Army Post-Deployment Reintegration Scale. Results showed that CAF members

Results showed that CAF members reported more positive than negative reintegration experiences. Yet a small but significant portion of CAF members were reporting reintegration problems six months after return.

reported more positive than negative reintegration experiences. Yet a small but significant portion of CAF members were

reporting reintegration problems six months after return. The ultimate use of the APDRS would therefore be to identify those members most at risk.

We also need to further develop our understanding of how the reintegration process works. Researchers now use a cross-sectional approach, which is only a snapshot of how people are doing at about six months after returning from a deployment. But how did these people get to that point? Where do they go afterwards? To answer these questions, researchers will need longitudinal research, which follows the same members over an extended period of time, and which assesses their reintegration at multiple time points.

Longitudinal research will also help answer other important questions. For example: Do elevated levels of negative attitudes soon after returning home predict longer-term negative outcomes? Or are they just part of the normal process of reconciliation with home and work life – a result that would make them independent of negative organizational and personal outcomes (e.g., PTSD and attrition)? How does the post-deployment reintegration process interact with occupational issues, such as other duty-related travel (e.g., training)? Can it adversely affect organizational and personal outcomes? Answers to these questions will allow us to better grasp "normal" homecoming experiences and attitudes, and allow us to compare them with indicators of future problems for members, their respective families and the military.

It is also crucial that more military personnel complete APDRS-like measurements. Some soldiers who serve in high-stress occupations (e.g., medical personnel), for example, have not been assessed in the current studies. In addition, land-based missions are not the only long-term deployments away from home. To be sure, some statements in the APDRS are universal; for instance, those related to family reintegration. But it is likely that statements concerning work-related issues will require reworking in order to be relevant to other environments (i.e., air force and navy). Finally, the trend toward effects-based operations — which involve integrated personnel from within the realms of defence, development and diplomacy — opens up new avenues. It would be useful to develop similar reintegration measures for personnel from national and local police forces and from other governmental agencies, such as development and foreign affairs, as well as for non-governmental agencies who also serve on challenging and extended overseas deployments.

ENDNOTES

- The authors wish to thank Dr. Angela Febbraro and Dr. Donna Pickering for their assistance in the initial stage of the scale's development, as well as the many members of the Canadian Armed Forces who helped and encouraged us in this endeavour.
- J. P. Wilson and G. E. Krauss, "Predicting Post-Traumatic Stress Disorder among Vietnam Veterans," in Post-Traumatic Stress Disorder and the War Veteran Patient, ed. W. E. Kelly (New York: Brunner/Mazel, 1985), 102–47; S. M. Orsillo, L. Roemer, B. T. Litz, P. Ehlich, and M. J. Friedman, "Psychiatric Symptomatology Associated with Contemporary Peacekeeping: An Examination of Post-Mission Functioning among Peacekeepers in Somalia," Journal of Traumatic Stress 11 (1998): 611–25; C. M. Aldwin, M. R. Levenson, and A. Spiro, "Vulnerability and Resilience to Combat Exposure: Can Stress have Lifelong Effects." Psychology and Aging 9 (1994): 34–44; P. T. Bartone, A. B. Adler, and M. A. Vaitkus, "Dimensions of Psychological Stress in Peacekeeping Operations," Military Medicine 163 (1998): 587–93.
- 3. A. Fontana and R. Rosenheck, "Posttraumatic Stress Disorder among Vietnam Theater Veterans: A Causal Model of Etiology in a Community Sample," Journal of Nervous & Mental Disease 182 (1994): 677–84; D. R. Johnson, H. Lubin, A. Fontana, S. Southwick, and D. Charney, "The Impact of the Homecoming Reception on the Development of Posttraumatic Stress Disorder: The West Haven Homecoming Stress Scale (WHHSS)," Journal of Traumatic Stress 10 (1997): 259–77; Wilson and Krauss, "Predicting Post-Traumatic Stress Disorder," 102–47; C. W. Hoge, J. L. Auchterlonie and C. S. Milliken, "Mental Health Problems, use of Mental Health Services, and Attrition from Military Service after Returning from Deployment to Iraq or Afghanistan," Journal of the American Medical Association 295 (2006): 1023–32.
- 4. S. H. Pincus, R. House, J. Christenson, and L.E. Adler, "The Emotional Cycle of Deployment: A Military Family Perspective," Journal of the Army Medical Department (Apr–Jun 2001): 15–23; M. M. Thompson and M. A. M. Gignac, "The Experience of Canadian Forces Augmentees," in The Human in Command: Peace Support Operations, eds. P. Essens, A. Vogellar, and D. Winslow (Amsterdam: Mets & Schilt/KMA, 2002), 235–63. Chapter 10 of this publication discusses the impact of deployment on families in more detail.
- 5. Johnson et al., "The Impact of the Homecoming Reception," 259–77.
- Thompson and Gignac, "The Experience of Canadian Forces Augmentees," 235–63; S. A. Yerkes and H. C. Holloway, "War and Homecomings: The Stressors of War and of Returning from War," in *Emotional Aftermath of the Gulf* War, eds. R. J. Ursano and A. E. Norwood (Washington: American Psychiatric Press, 1996), 25–42.

- 7. Yerkes and Holloway, "War and Homecomings," 25–42.
- 8. Hoge et al., "Mental Health Problems," 1023-32.
- E. E. Bolton, B. T. Litz, D. M. Glenn, S. Orsillo and L. Roemer, "The Impact of Homecoming Reception on the Adaptation of Peacekeepers Following Deployment," *Military Psychology* 14 (2002): 241–51.
- Aldwin, Levenson, and Spiro, "Vulnerability and Resilience to Combat Exposure," 34–44.
- Pincus et al., "The Emotional Cycle of Deployment," 15–23; J. H. Newby, J. E. McCarroll, R. J. Ursano, Z. Fan, J. Shigemura and Y. Tucker-Harris, "Positive and Negative Consequences of a Military Deployment," *Military Medicine* 170 (2005): 815–19.
- 12. D. P. Hall and J. A. Jansen, "Stress and Arousal in Deployment of a Combat Support Hospital," *Military Medicine* 160 (1995): 581–83; S. Maguen, B. T. Litz, J. L. Wang, and M. Cook, "The Stressors and Demands of Peacekeeping in Kosovo: Predictors of Mental Health Response," *Military Medicine* 169 (2004): 198–206; R. J. Ursano, R. Wheatley, W. Sledge, A. Rahe, and E. Carlson, "Coping and Recovery Styles in the Vietnam Era Prisoner of War," *Journal of Nervous and Mental Disease* 175 (1986): 273–75.
- B. T. Litz, L. A. King, D. W. King, S. M. Orsillo, and M. J. Friedman, "Post-Traumatic Stress Disorder Associated with Peacekeeping Duty in Somalia," *American Journal of Psychiatry* 154 (1997): 178–84.
- 14. Bolton et al., "The Impact of Homecoming," 241-51.
- 15. Pincus et al., "The Emotional Cycle of Deployment," 15-23.
- 16. Fontana and Rosenheck, "Posttraumatic Stress Disorder," 677-84.
- For a discussion of the development of the HDO Project, see Chapter 1 of this volume.
- Thompson and Gignac, "The Experience of Canadian Forces Augmentees," 235– 63.
- 19. Augmentees are military members who are assigned individually or in small groups on temporary duty to another unit based on their unique skill sets or to fill personnel shortages. As such, they may be drawn from any branch of the armed forces.
- 20. Ibid.
- 21. Ibid. It is worth noting that the positive aspects of reintegration that came out of the preliminary work by Thompson and Gignac ("The Experience of Canadian Forces Augmentees," 235–63) are consistent with more recent findings by Newby et al., "Positive and Negative Consequences of a Military Deployment," 815–19.

- 22. Fontana and Rosenheck, "Posttraumatic Stress Disorder," 677-84.
- 23. Three local military members who had deployed on multiple overseas tours reviewed the statements for clarity of instructions, as well as for item wording and readability. Based upon their suggestions, some statements were modified.
- 24. Revision was carried out with the help of a senior Army officer who had been deployed on several overseas missions.
- 25. A.-R. Blais, M. M. Thompson, and D. R. McCreary, *Post-Deployment Reintegration: Psychometric Replication and Preliminary Validation Results*, DRDC Technical Report 2005-277 (Toronto: Defence Research and Development Canada, 2005).
- 26. The instructions were as follows: "There are no right or wrong answers to the following questions. People may have differing views, and we are interested in what your experiences are. Please indicate the extent to which each of the statement below is true for you since returning from your most recent deployment using the following scale range, ranging from *Not all true* (1) to *Completely true* (5)."
- 27. Research in this area includes P. A. Gade, R. B. Tiggle, and W. R. Schumm, "The Measurement and Consequences of Military Organizational Commitment in Soldiers and Spouses," *Military Psychology* 15 (2003): 191–207; N. J. Allen, "Organizational Commitment in the Military: A Discussion of Theory and Practice," *Military Psychology* 15 (2003): 237–53; A. I. Karrasch, "Antecedents and Consequences of Organizational Commitment," *Military Psychology* 15 (2003): 225–36.
- Affective commitment refers to an individual's attachment to, or identification with his/her organization.
- See J. P. Meyer and N. J. Allen, Commitment in the Workplace: Theory, Research, and Application (Thousand Oaks: Sage, 1997); Gade, Tiggle, and Schumm, "The Measurement and Consequences," 191–207; and Karrasch, "Antecedents and Consequences of Organizational Commitment," 225–36.
- 30. Continuance commitment refers to an individual's need to stay within an organization due to a lack of alternatives or a large previous investment in that organization.
- 31. Allen, "Organizational Commitment in the Military," 237–53; Meyer and Allen, *Commitment in the Workplace*.
- 32. P. T. Van Katwyk, S. Fox, P. E. Spector, and E. K. Kelloway, "Using the Job-Related Affective Well-Being Scale (JAWS) to Investigate Affective Responses to Work Stressors," Journal of Occupational Health Psychology 5 (2000): 219–30; D. R. McCreary and M. M. Thompson, "Development of Two Reliable and Valid Measures of Stressors in Policing: The Operational and Organizational Police Stress Questionnaires," International Journal of Stress Management 13 (2006): 494–518.

- 33. The six-factor model of post-deployment reintegration experiences was, again, supported by the data. The pattern of results was, for the most part, consistent with that reported earlier. Members agreed with the negative and positive experiences in a relatively independent fashion, their evaluations were positively correlated across domains, and they reported more positive than negative reintegration experiences in all three domains. See A.-R. Blais, M. M. Thompson, and D. R. McCreary, The Post-Deployment Reintegration Scale: Associations with Organizational Commitment, Job-Related Affect, and Career Intentions, DRDC Technical Report 2006-192 (Toronto: Defence Research and Development Canada, 2006).
- 34. T. Dobreva-Martinova, Psychometric Analysis of the Stress in the Military Service Based on Surveys of Deployed Canadian Forces Personnel (Ottawa: Defence Research and Development Canada, Directorate for Human Resource Research and Evaluation, 1998).
- 35. Gade, Tiggle, and Schumm, "The Measurement and Consequences," 191–207.
- 36. Van Katwyk et al., "Using the Job-Related Affective Well-Being Scale," 219–30.
- 37. P. T. Bartone, R. J. Ursano, K. M. Wright, and L. H. Ingraham, "The Impact of a Military Air Disaster on the Health of Assistance Workers: A Prospective Study," *Journal of Nervous and Mental Disease* 177 (1989): 317–28; F. W. Weathers, B. Litz, D. Herman, J. Huska and T. Keane, "The PTSD Checklist (PCL): Reliability, Validity and Diagnostic Utility" (paper presented at the Ninth Annual Conference of the International Society for Traumatic Stress Studies, San Antonio, 1993).
- 38. J. C. Nunnally, Psychometric Theory (New York: McGraw Hill, 1967).
- 39. D. Fikretoglu and D. R. McCreary, *Development of Norms for the Post-Deployment Reintegration Scale* (Toronto: Defence Research and Development Canada, 2010). Note: APDRS = Army Post-deployment Reintegration Scale; CI = confidence interval; SD = standard deviation; highly below average = 2.01 to 3.00 SDs below the mean; below average = 1.01 to 2.00 SDs below the mean; average = 1.00 SD above to 1.00 SD below the mean; above average = 1.01 to 2.00 SDs above the mean; highly above average = 2.01 to 3.00 SDs above the mean.
- 40. These normative data can be obtained by contacting the authors of this paper.
- 41. These normative data and easy-to-use instructions for applying them can be found in Fikretoglu and McCreary, *Development of Norms*.
- 42. These members would be those reporting very adverse experiences in the postdeployment period in one or more of the three domains.

CHAPTER 10:

THE IMPACT OF DEPLOYMENT ON FAMILIES OF MILITARY MEMBERS

Kerry Sudom and Julie Coulthard

Work and family life can have a significant effect on one another. Individuals with a healthy family life are more likely to be committed, focused and effective at work.¹ By the same token, conflict between work and family life can have a negative effect on health and well-being. Problems at home can lead to challenges, such as poor health, alcohol abuse, low job satisfaction and burnout. Needless to say, family problems have the potential to turn into organizational problems like decreased job performance and increased turnover.²

The effect of family life on work life is especially important for military organizations, because the military has an extraordinary influence on the lifestyle of its members and their families. Military families face a number of disruptions to family life that require adaption on their part: geographic relocation, temporary housing, unemployment and underemployment of civilian spouses, periodic separations, separations from extended family, and deployments of the military member to dangerous situations. Because these demands can adversely impact families and thus serving members, the Canadian Armed Forces have become concerned with the effects of military life on families.

In this chapter, we examine current research on the impact of military life on family life with a focus on the spouses and partners of military members. The first part of the chapter discusses how and why the effects of military life on family life have become an important concern for the CAF. We also provide an overview of how researchers understand the effects of military life on family life, with an emphasis on the deployment cycle, along with some of the gaps still remaining in the research. In the second part of this chapter we discuss our research into the effects of military life on the spouses and common-law partners of CAF members in particular. We conclude with a discussion of the effects of military life on military families.

THE IMPORTANCE OF FAMILIES TO THE CANADIAN ARMED FORCES

In the past few decades, three major changes have taken place within the CAF that have impacted families and increased the importance of families. The first is the nature of the CAF's military operations, which has shifted from primarily peacekeeping and humanitarian missions to the recent counterinsurgency operations in Afghanistan. Many families have had to deal with the stress of not only being separated from their military partner, but also of the member being deployed on dangerous operations.

Second, age restrictions for entering the CAF were removed in the 1980s following the introduction of the *Canadian Human Rights (CHR) Act* and the *Canadian Charter of Rights and Freedoms*. As a result, older individuals – who are more likely to have a family – are able to apply for military service.

Third, in 1989, a CHR Tribunal directed that women were to be integrated into all CAF roles except service on submarines; and in 2001 this restriction was also lifted. Since then, the proportion of women in the CAF has grown.³ Because women are still often the primary caregivers in families, they must balance the demands of military and family life.⁴

These changes have led to an increased focus on the well-being of military families, and a recognition of the important role of families in the CAF. In 2009, the Chief of the Defence Staff endorsed the Canadian Forces Family Covenant⁵ which reflects the importance of military families to the organization and the commitment of leadership to military families. The Covenant recognizes "the important role families play in enabling the operational effectiveness of the Canadian Forces" and pledges "to work in partnership with the families and the communities in which they live" to enhance military life. Our research on the human dimensions of operations, as it relates to the impact on families of CAF members, has grown out of this commitment.

One of the main challenges that CAF families face is the deployment of their military family member. We will discuss the cycle of deployment – from preparation to eventual reunion and reintegration – along with the typical challenges experienced by many families throughout each stage.

THE DEPLOYMENT CYCLE AND ITS IMPACT ON CAF FAMILIES

The deployment cycle can be viewed as a three-phase process: the predeployment phase, the deployment phase, and the post-deployment phase. Each phase involves unique issues and experiences for families, from anticipation of the military member's absence, to the period of separation, to the eventual reunion and reintegration of the military member into the family.⁷

As the name suggests, the pre-deployment phase refers to the period when the military member prepares for deployment. This phase can be particularly difficult for families. Families can feel that their life is "on hold" as they await the deployment of the military member.⁸ The military member can be physically and psychologically preoccupied with preparations for the deployment, at the same time that the family may want to spend more time together. The competing demands can create conflicts within the family during this time.⁹ Families often experience feelings of anxiety, apprehension and sadness, and they may try to cope with the upcoming deployment by emotionally withdrawing from the situation.¹⁰ As well, families must address daily concerns that may become issues while the military member is away, such as employment of the spouse remaining at home, financial concerns and childcare.¹¹

The military lifestyle can present challenges to military families. One of the most significant stressors is the separation of family members due to operational deployments. During the period of separation, family roles and routines are reorganized as the spouse and children remaining at home adjust to the military member's absence. During that time, families may experience marital difficulties, childcare concerns and practical issues such as those associated with home maintenance. While the military member is away from the family, many spouses also experience a mixture of emotions, including sadness, depression, disorientation, anxiety, loneliness, feeling overwhelmed, numbness, anger, relief and fear for the military member's safety. Physical reactions can also occur, including sleep disturbances, loss of appetite, and other physical health complaints. 13

Deployments may be particularly stressful for certain families, such as those with young children, or those experiencing a separation for the first time. The pressure of temporarily being a single parent can be especially challenging for spouses who also hold full-time employment of their own. The spouse left behind takes on the added responsibilities of childcare, together with any problems the children themselves experience during the deployment. ¹⁴ As well, families in which both parents are serving members, or those who are single parents, may be more likely to face difficulties in finding childcare for periods when they are away from home. ¹⁵

Most research has focused on the impacts of military life and deployments on spouses and on the family as a whole, while less attention has been paid to the children of military families. Research has shown that military-related absence of a parent is linked to mood and behavioural issues among children, such as depression and anxiety, decreased academic performance, feelings of sadness, loneliness, anger and abandonment, and acting out. ¹⁶ Children may feel the burden of deployments, and may experience problems such as fear of harm to their parent, or sadness related to the parent's absence.

When the deployment ends, the period of reintegration of the military member into the family begins. Both excitement and apprehension increase in anticipation of the member coming home.¹⁷ The spouse left behind may have taken on new roles and responsibilities during the military member's absence, requiring a reorganization of roles once the member is back with the family. The spouse may also have developed a greater sense of independence during the deployment, which can make accepting some of the loss of independence difficult when the military partner comes home. For the military member, the emotional after-effects of being involved in combat or other traumatic experiences during the deployment may carry over into family life. Couples commonly experience poor communication, emotional distancing and anger in the post-deployment period. Behavioural problems in children may also occur. Sometimes these effects are only experienced some time after post-deployment, following a "honeymoon" period during which issues are put off for discussion while the family enjoys time together after a prolonged period of separation.¹⁸

The stress of deployment may be particularly difficult for families at certain stages of life. Younger couples, for example, have had less time to solidify their relationships, as well as less experience in successfully navigating separation and reintegration. This can cause them to be more vulnerable to marital problems when separated. As well, families with young children may find it particularly stressful when the parent remaining at home must take full responsibility for childcare, or must deal with the military partner missing important events or milestones in the child's life. Much of the research has focused on two-parent families with a civilian spouse. Yet additional challenges may be faced when both parents are military members, or among single-parent families. In short, different families experience varying amounts of stress, and find different stages of deployment more stressful than others. But it is clear that deployments place a great deal of pressure on the serving member, the spouse at home, and their children.

We now turn to some survey research conducted by Defence Research and Development Canada (DRDC) with spouses and common-law partners of CAF members. We discuss the impacts of deployments on CAF families and what CAF spouses have experienced throughout the deployment of their military family member.

FAMILY RESEARCH IN THE CANADIAN ARMED FORCES

In 2008-2009, we conducted a study of spouses and common law partners²⁰ of CAF members to look at the effects of military life on families from the perspective of the families themselves.²¹ The survey examined the impacts of military life (including deployments) on families, and contained a number of measures to assess stress, deployment experiences, well-being, and effects of deployment on children. At the time, little research had been conducted within the CAF on families. But it was (and still is) important to document the experiences of Canadian military members and their families, in order to develop programs tailored to them.

This part of the chapter presents data from this study, which looked specifically at the deployment experiences of spouses. We begin with demographic details about the sample surveyed.²² Next, we look at the

results of the survey, beginning with a synopsis of the deployment experiences of spouses, their family concerns during deployment, their symptoms of depression, and their experiences of their children's behaviour during deployment. We then look at the stressors particular to each of the three phases of deployment, followed by a discussion of the results of this survey and some of its limitations. We conclude with some reflections on the effects of deployments on military families.

Demographics. The majority of the spouses were female (87%) and spoke English as their first language (77%). About one fifth of the spouses were CAF members themselves, the majority being part of the Regular Force. The length of the relationship ranged from 1 to 38 years, with an average of 13 years. In addition, most spouses (68%) had children living in their home. About 12% (n = 255) of spouses were experiencing a deployment of their CAF partner at the time of the survey, and the majority of the deployments reported were overseas. In addition, 6% (n = 106) were preparing for a deployment in the next six months, while 18% (n = 384) were in the post-deployment phase.

Spouses' Experiences with Deployment.²³ Positive feelings, such as pride and being in control, increased across the stages of deployment, from the predeployment phase when the military member prepared to leave, to the post-deployment phase when the member reintegrated into the family. Over the same period, negative feelings, such as sadness, frustration, anxiety, apprehension, resentment, anger and guilt, decreased (see Figure 10.1).

Figure 10.1 also shows the percentage of spouses who reported that they had experienced various feelings in association with a deployment. Similar trends were found even among spouses whose military family member had deployed more than a year earlier, such that even those looking back on their partner's past deployment indicated more positive feelings, and fewer negative feelings, from the pre- to the post-deployment stage.²⁴

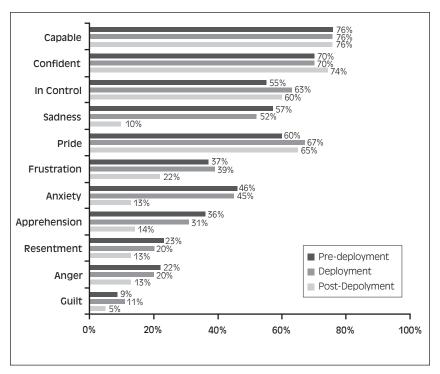


FIGURE 10.1: FEELINGS REPORTED BY SPOUSES THROUGHOUT THE DEPLOYMENT CYCLE 25

Family Concerns during Deployment.²⁶ nFigure 10.2: Spouses' Deployment Experiences27 Spouses' Deployment Experiences shows that spouses who had recently experienced a deployment of the military partner reported a combination of positive and negative experiences during deployment. While many experienced pride and felt that the deployment increased closeness in their relationship, some were worried about their partner's safety and experienced issues with reintegration of the military member.

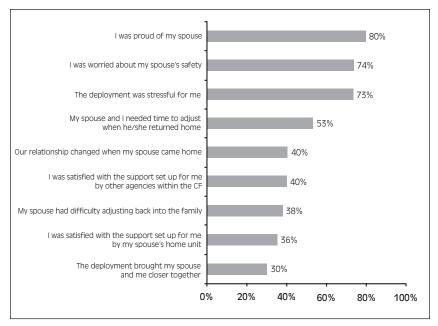


FIGURE 10.2: SPOUSES' DEPLOYMENT EXPERIENCES²⁷

Spouses' Symptoms of Depression. Figure 10.3 shows that symptoms of depression were slightly greater among those spouses whose military partner was currently deployed, compared to those in the pre- or post-deployment stage. ²⁹

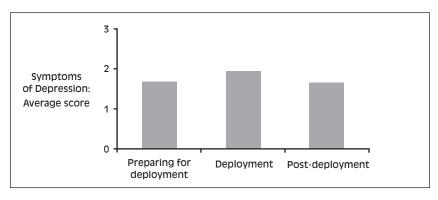


FIGURE 10.3: SYMPTOMS OF DEPRESSION THROUGHOUT THE DEPLOYMENT CYCLE

Child Behaviours during Deployment.³⁰ Figure 10.4 shows that spouses reported many negative effects of deployment on their children. Almost half of the spouses reported, for example, that their children became clingy, while about a third reported that their children showed behavioural changes, such as anxiety and acting out.

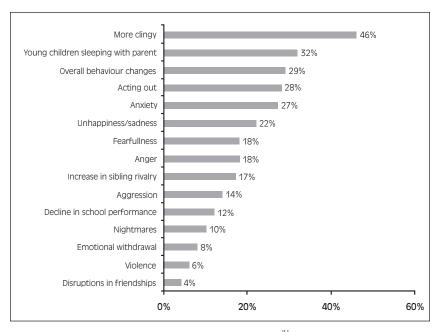


FIGURE 10.4: CHILD BEHAVIOURS DURING DEPLOYMENT³¹

DEPLOYMENT-RELATED STRESSORS32

Pre-deployment-related Stressors. Many of the challenges reported by spouses in the pre-deployment stage³³ revolved around practical, day-to-day concerns. A major stressor reported by close to two thirds of respondents was the thought of taking on sole responsibility for household maintenance and care during the deployment. Many noted the stress of taking care of all the necessary preparations in advance of the deployment (such as getting finances in order, learning how to use tools, and making arrangements for snow shovelling). One spouse stated that a key stressor was "concerns about whether I would be able to manage the household responsibilities and take

care of our family on my own," while another stated that "making sure we were ready for him to go away (house, yard, car maintenance)" was a source of stress.

Issues related to the logistics of the deployment were also challenging. Specifically, almost a third of spouses indicated that the service member's extensive pre-deployment training requirements and subsequent time away from home was very hard on them. As one spouse stated, "The coming and going on training was extremely difficult. We would have to adjust to him gone and adjust again to have him back only for a week or days at a time." The lack of information provided about the deployment (e.g. unclear return date) and a continually changing departure date also contributed to a high level of uncertainty and increased stress. One spouse reported that "the date for departure kept changing and that was stressful and frustrating" while another noted that a major stressor was "the many, many good-byes, with the big 'final' good-bye always looming." Another stressor for about a third of the spouses was fear about the danger facing the service member in theatre. As one spouse put it, "the fact that he might not come home" was a significant source of anxiety.

The well-being of the family was also noted as a concern for just over half of the spouses during the pre-deployment phase. Several spouses experienced tension in their relationship, with some indicating that they felt anger, frustration or resentment toward the service member, even while they tried to be supportive. One respondent commented, "I want to be supportive but am frustrated at the same time," while another stated that a main stressor was "trying not to be angry at my spouse for leaving because I know it's their job." Issues regarding the children (e.g., childcare arrangements, well-being) were also a key challenge identified by just over half of respondents. Spouses noted concerns about raising their children as a single parent. Also difficult was the emotional impact of the absence of the service member parent on the children – for example, "kids missing their dad and him missing the many milestones in their lives."

Deployment-related Stressors. Spouses³⁴ reported stressors and challenges in the deployment phase similar to those experienced during pre-deployment.

Taking on sole responsibility for household care and maintenance was especially difficult. About two thirds of respondents reported struggling to manage the home on a day-to-day basis (e.g., household chores, snow shovelling, car maintenance). In addition, a quarter of respondents reported having to cope with stressors unrelated to the deployment alone, such as illness or surgery, illness or death of a family member, loss of the family pet, pregnancy or childbirth, major household or car repairs, and other household crises and family emergencies. As well, close to one third of spouses experienced strong feelings of loneliness and isolation during the deployment. The well-being of the family and sole responsibility for the children continued to be a challenge.

Half of respondents continued to identify concern for the safety of the service member as a key stressor. Several spouses stated that media coverage and news reports were the source of much fear and anxiety. One spouse stated, for example, that "seeing things in the news constantly is a constant reminder of the danger my family is facing." Another major stressor identified by one quarter of respondents was the lack or poor quality of communication (i.e., phone and email), and overall difficulty in maintaining contact with the deployed service member. One respondent noted the "extreme frustration with inadequate phone calls. Many were cut short or completely incoherent."

Post-Deployment-related Stressors. During this stage, key stressors were related to adjustment to the service member's return and reintegration of the member into the family.³⁵ For about half of the spouses, a major challenge was getting to know their partner again after a long separation and trying to re-build the relationship. Several respondents commented that "reconnecting, getting to know each other again" was a significant stressor. Some spouses also noted changes in the behaviours or attitudes of the service member upon return, such as increased drinking, mood swings, irritability, personality changes, and difficulty coping with being home after deployment. A few respondents stated that the relationship with their spouse had ended. One spouse reported that "he came back and we have separated because he doesn't want this life"; another noted, "She left me because she changed too much."

CHAPTER 10

Another source of stress in the reintegration period was giving up control and sharing in the decision-making for the household and children after getting used to a new routine and taking care of everything on their own. This stressor was noted by about two thirds of the spouses. One spouse stated, "I found it very difficult having him home. I felt like my independence had been taken away," while another noted that it was stressful "getting used to having him home again, sharing in things/decisions you did alone while he was gone."

CONCLUDING REMARKS

Separations due to military deployments can be challenging for families. The research discussed in this chapter suggests spouses' positive feelings such as pride and being in control increased across the three stages of deployment, from the pre-deployment through the deployment and post-deployment phases. Meanwhile, negative feelings such as sadness and frustration decreased during this time. Coping with the demands of deployment can be stressful for families. Yet many spouses appear to be able to adapt well, and some are even able to focus on positive aspects of the deployment.

However, some spouses do experience negative feelings and symptoms of depression while their partner is deployed. Symptoms of depression among spouses were slightly higher during deployment than pre- or post-deployment. This suggests that symptoms of mental health problems may be unrelated to deployment status, or may depend upon other factors not considered in the study (e.g., being apart from extended family). In addition to the impacts on spouses, some survey respondents noticed behavioural changes in their children as a result of deployment (e.g., acting out, decreased academic performance).

The open-ended comments suggested that there were consistent challenges faced by spouses across the deployment cycle, from apprehension about what to expect during the pre-deployment stage, to dealing with the practical day-to-day issues and challenges during the deployment period, to the adjustment and reintegration of the service member in the post-

deployment stage. Spouses struggled with a lack of time, greater stress, and difficulty managing everything on their own. Overall, however, spouses seemed to be managing fairly well, adjusting to the new routines they had established and adapting to their new lives.

Past research has focused on the negative effects of deployments. However, it is also important to be able to identify the factors that help families adapt and be resilient in the face of deployment-related stressors. Protective factors can include maintaining communication with the service member and accessing social support in the community, which may help families adapt to the demands of deployments. Such factors represent areas where the CAF could focus intervention efforts. Organizational support in the form of military leadership training to understand the relationships between work and family issues may particularly aid in leadership support for families.

Past research suggests that although military separation can be challenging for families, it can also strengthen them.³⁷ It is possible that

deployments have positive impacts, such as a sense of pride in the military member for accomplishing meaningful work, or the development of increased independence among the spouse

Not all families will experience significant distress, and of those that do, they will not all experience it to the same degree. Regardless of the level of distress experienced, it is important for the CAF to prepare and sustain families for this inherent demand of military service.

and children remaining at home. Research has found that deployments can be perceived by families as being beneficial in certain ways, including the honour and prestige associated with serving the country, as well as the financial benefits. Rather than being a discrete event, it is important to note that deployment is an integral part of military service. Although it comes with challenges, viewing it only through a negative lens is limiting. Not all families will experience significant distress, and of those that do, they will not all experience it to the same degree. Regardless of the level of distress experienced, it is important for the CAF to prepare and sustain families for this inherent demand of military service.

CHAPTER 10

It is recognized that the experiences of spouses studied here may not apply to all spouses in the CAF who have experienced a deployment of their CAF partner. Some spouses may have had experiences that were different than those of the survey respondents, and the questions asked regarding deployment experiences and feelings are likely not exhaustive. Experiences may also differ depending on the nature of the deployment (e.g., whether it involved peacekeeping or combat), as well as the length of time away and time between deployments. As well, the findings may not apply to families of Primary Reserve members, who may have their own unique challenges. There may also be differences in deployment experiences based on factors such as gender, rank of the military partner, length of time in service, dual military family status, and among single parents.

In sum, the military can have a considerable influence on family life, particularly in times when military personnel are deployed to high intensity areas such as Afghanistan. Military life involves a number of challenges

Families are important not only for military members, but for the CAF as a whole. Families support military members' well-being, readiness, work performance, and ability to carry out missions. for families, including relocations, separations, and deployments. But families are important not only for military members, but for the CAF as

a whole. Families support military members' well-being, readiness, work performance, and ability to carry out missions. It is therefore important to understand the challenges that families experience as they adapt to the demands of military life, particularly deployments. The results of this research and future work in this area will enhance our understanding of the impacts of deployments on families, so that CAF programs and policies can be appropriately targeted.³⁹

ENDNOTES

- E. E. Kossek and C. Ozeki, "Work-Family Conflict, Policies, and the Job-Life Satisfaction Relationship: A Review and Directions for Organizational Behavior/ Human Resources Research," *Journal of Applied Psychology* 83 (1998): 139–49; V. S. Major, K. J. Klein, and M. G. Ehrhart, "Work Time, Work Interference with Family, and Employee Distress," *Journal of Applied Psychology* 87 (2002): 427–36.
- 2. G. A. Adams, L. A. King, and D. W. King, "Relationships of Job and Family Involvement, Family Social Support, and Work–Family Conflict with Job and Life Satisfaction," Journal of Applied Psychology 81 (1996): 411–20; T. D. Allen, D. E. L. Herst, C. S. Bruck, and M. Sutton, "Consequences Associated with Work-to-Family Conflict: A Review and Agenda for Future Research," Journal of Occupational Health Psychology 5 (2000): 278–308; M. R. Frone, "Work–Family Conflict and Employee Psychiatric Disorders: The National Co-Morbidity Survey," Journal of Applied Psychology 85 (2000): 888–95; M. R. Frone, M. Russell, and G. Barnes, "Work–Family Conflict, Gender, and Health Related Outcomes: A Study of Employed Parents in Two Community Samples," Journal of Occupational Health Psychology 1 (1996): 57–69; M. R. Frone, M. Russell, and M. L. Cooper, "Antecedents and Outcomes of Work-Family Conflict: Testing a Model of the Work-Family Interface," Journal of Applied Psychology 77 (1992): 65–78.
- S. Dursun and K. Sudom, Impacts of Military Life on Families: Results from the Perstempo Survey of Canadian Forces Spouses, Director General Military Personnel Research and Analysis Technical Report 2009-001 (Ottawa: Defence Research and Development Canada, 2009).
- 4. Ibid.
- 5. Director Military Family Services, *Canadian Forces Family Covenant*, 2008, http://www.familyforce.ca/sites/AllLocations/EN/About%20Us/Pages/Covenant.aspx.
- 6. Ibid.
- K. V. Logan, "The Emotional Cycle of Deployment," U.S. Naval Institute Proceedings 113 (1987): 43–7; S. H. Pincus, R. House, J. Christensen, and L. E. Adler, "The Emotional Cycle of Deployment: A Military Family Perspective," Army Medical Department Journal 6 (2001): 15–23.
- C. A. Lapp, L. B. Taft, T. Tollefson, A. Hoepner, K. Moore, and K. Divyak, "Stress and Coping on the Home Front: Guard and Reserve Spouses Searching for a New Normal," *Journal of Family Nursing* 16 (2010): 45–67.
- D. Amen, L. Jellen, E. Merves, and R. Lee, "Minimizing the Impact of Deployment Separation on Military Children: Stages, Current Preventive Efforts, and System Recommendations," *Military Medicine* 153 (1988): 441–6; A. Chandra,

CHAPTER 10

- R. Burns, T. Tanielian, L. Jaycox, and M. Scott, "Understanding the Impact of Deployment on Children and Families: Findings from a Pilot Study of Operation Purple Camp Participants, Working Paper" (Rand: Center for Military Health Policy Research, 2008); A. Huebner and J. Mancini, Adjustments Among Adolescents in Military Families when a Parent is Deployed, Final Report to the Military Family Research Institute and Department of Quality of Life Office, Military Family Research Institute (West Lafayette, IN: Purdue University, 2005); T. W. Weins and P. Boss, "Maintaining Family Resiliency Before, During and After Military Separation," in Israel Defense Forces Military Life: The Psychology of Serving in Peace and Combat, eds. C. A. Castro, A. B. Adler and C. A. Britt (Bridgeport: Praeger Security International, 2006), 13–38.
- A. D. Van Breda, Resilience Theory: A Literature Review (Pretoria, South Africa: South African Military Health Service, Military Psychological Institute, Social Work Research & Development, 2001); A. D. Van Breda, "Experience of Routine Husband Absences in the South African Navy," Social Work / Maatskaplike Werk 33 (1997): 154–64.
- 11. Huebner and Mancini, Adjustments Among Adolescents in Military Families.
- Pincus et al., "The Emotional Cycle of Deployment," 15–23; H. K. Wexler and E. McGrath, "Family Member Stress Reactions to Military Involvement Separation," Psychotherapy 28 (1991): 515–9.
- 13. See A. B. Adler, P. T. Bartone, and M. A. Vaitkus, Family Stress and Adaptation During a U.S. Army Europe Peacekeeping Deployment (Heidelberg: U.S. Army Medical Research Unit Europe, 1995); H. Frankel, L. R. Snowden, and L. S. Nelson, "Wives' Adjustment to Military Deployment: An Empirical Evaluation of a Family Stress Model," International Journal of Sociology of the Family 22 (1992): 93–117; S. Wood, J. Scarville, and K. S. Gravino, "Waiting Wives: Separation and Reunion among Army Wives," Armed Forces and Society 21 (1995): 217–32; K. M. Wright, L. M. Burrell, E. D. Schroeder, and J. L. Thomas, "Military Spouses: Coping with the Fear and the Reality of Service Member Injury and Death," in Military Life: The Psychology of Serving in Peace and Combat, eds. C. A. Castro, A. B. Adler and C. A. Britt (Bridgeport, CT: Praeger Security International, 2006), 39–63.
- 14. Huebner and Mancini, Adjustments Among Adolescents in Military Families.
- 15. M. C. Bethea, The Long War and the Forgotten Families: Dual-Military Couples, Strategy Research Report (Carlisle Barracks: U.S. Army War College, 2007); G. L. Bowen, D. K. Orthner and L. I. Zimmerman, "Family Adaptation of Single Parents in the United States Army: An Empirical Analysis of Work Stressors and Adaptive Resources," Family Relations 42 (1993): 293–304.
- See M. Levai, S. Kaplan, R. Ackermann, and M. Hammock, "The Effect of Father Absence on the Psychiatric Hospitalization of Navy Children," *Military*

Medicine 160 (1995): 104–06; P. Jensen, D. Grogan, S. Xenakis, and M. Bain, "Father Absence: Effects on Child and Maternal Psychopathology," Journal of the American Academy of Child and Adolescent Psychiatry 28 (1989): 171–5; P. S. Jensen, D. Martin, and H. K.Watanabe, "Children's Response to Parental Separation During Operation Desert Storm," Journal of American Academy of Child and Adolescent Psychiatry 35 (1996): 433–41; M. Kelley, E. Hock, K. Smith, M. Jarvis, J. Bonney, and M. Gaffney, "Internalizing and Externalizing Behavior of Children with Enlisted Navy Mothers Experiencing Military-Induced Separation," Journal of American Academy of Child and Adolescent Psychiatry 40 (2001): 464–71; D. Orthner and R. Rose, Adjustment of Army Children to Deployment Separation, Army Child Deployment Adjustment Report, SAF V Survey Report (Chapel Hill: The University of North Carolina at Chapel Hill, 2005); C. Hiew, "Separated by Their Work: Families with Father Living Apart," Environment and Behavior 24 (1992): 206–25.

- 17. Logan, "The Emotional Cycle of Deployment," 43-71.
- See B. W. Blount, A. Curry, and G. I. Lubin, "Family Separations in the Military,"
 Military Medicine 157 (1992): 76–80; R. A. Jolly, *Military Man, Family Man: Crown Property*² (London: Brassey's Defence Publishers, 1987); J. D. Ford, D. Shaw, S. Sennhauser, D. Greaves, B. Thacker, P. Chandler, L. Schwartz, and V. McClain, "Psychosocial Debriefing after Operation Desert Storm: Marital and Family Assessment and Intervention," *Journal of Social Issues* 49 (1993): 73–102.
- 19. M. W. Segal, "The Military and the Family as Greedy Institutions," *Armed Forces & Society* 1 (1986): 9−38.
- 20. From this point on, the term "spouse" is used in referring to individuals in both legally married and common-law relationships.
- 21. K. Sudom, *Quality of Life among Military Families: Results from the 2008/2009 Survey of Canadian Forces Spouses*, Technical Memorandum 2010-017 (Ottawa: Defence Research and Development Canada, 2010).
- 22. The survey (Sudom, *Quality of Life among Military Families*) was anonymous and paper-based. It assessed spouses' deployment experiences, such as family concerns and child behaviour during deployment, as well as symptoms of depression and stressors experienced throughout the deployment cycle. It was mailed to a sample of 10,592 spouses of CF members from a centralized personnel database of CF Regular Force members. Responses were received from 2,084 spouses, yielding an adjusted response rate of 21.3%. Surveys could not be delivered to 800 addresses, resulting in a final eligible sample of 9,792.
- 23. Spouses were asked how often they experienced a number of feelings prior to, during, and after a deployment (e.g., resentment, pride). They responded in terms of how often they experienced each feeling on a scale ranging from 1 (never) to 5 (always) (Sudom, Quality of Life among Military Families).

CHAPTER 10

- 24. Ibid.
- 25. The percentages reflect those who selected *agree* or *strongly agree* in response to statements reflecting each feeling.
- 26. This scale was adapted from a scale originally developed to assess family concerns among military members [M. M. Thompson and L. Pasto, Psychometric Assessment and Refinement of the Family Issues Scale of the Human Dimensions of Operations (HDO) Project, Technical Report 2001-049 (Downsview, Canada: Defence and Civil Institute of Environmental Medicine, 2001)]. Spouses responded to each of the items (e.g., "I was worried about my partner's safety") in terms of the extent to which it affected them on a scale ranging from 1 (strongly disagree) to 6 (strongly agree).
- The percentages reflect those who selected agree or strongly agree in response to each statement.
- 28. A shortened (9-item) version of the Center for Epidemiologic Studies Depression Scale (CES-D) was used to assess symptoms of depression [L. S. Radloff, "The CES-D Scale: A Self-Report Depression Scale for Research in the General Population," *Applied Psychological Measurement* 1 (1977): 385–401]. Spouses rated the frequency with which they experienced each of the nine symptoms, such as feeling unhappy and depressed, on a scale ranging from 1 (rarely or none of the time) to 4 (most or all of the time).
- Although the difference was statistically significant, it can be seen that symptoms were only slightly higher during deployment, compared to pre- or post-deployment.
- 30. Respondents were asked a number of questions regarding how their children responded to deployment. Fifteen behaviours (e.g., decline in school performance) were assessed on a scale ranging from 1 (never) to 5 (always).
- 31. Percentages are out of total respondents who reported that their CF partner was deployed at least once while they were together, and who had children living at home (n = 934).
- 32. Spouses were asked open-ended questions about the major stressors experienced in each stage of the deployment cycle. Their responses were categorized into themes.
- 33. Based on the respondents (n=106) who reported that their spouse was preparing for a deployment.
- 34. Based on the respondents (*n*=255) who reported that their spouses were currently deployed.
- 35. See Chapter 9 of this publication for more on post-deployment reintegration.
- 36. Weins and Boss, "Maintaining Family Resiliency," 13-38.
- 37. Ibid.

- 38. Sudom and Dursun, *The Relationship Study: Qualitative Findings*, Director General Military Personnel Research and Analysis Technical Report 2006-36 (Ottawa: Defence Research and Development Canada, 2006).
- 39. For a full discussion of this study, including the limitations, see Sudom, *Quality of Life among Military Families*.

LEADERSHIP AND THE HUMAN DIMENSIONS OF MILITARY EFFECTIVENESS

Alan Okros

Successful military operations depend on motivated individuals formed into cohesive teams with the authority to use their initiative to develop novel solutions to the dynamic, dangerous, confusing and unpredictable environments they face. The ten chapters in this publication focused on specific issues in preparing individuals for these environments and protecting them against their impacts. This afterword will focus on leadership, which is responsible for motivating people to work together in the face of these challenges and for assuring that the institutional framework is in place to support them before, during, and after military operations. Accordingly, I will draw on the CAF's leadership doctrine to illustrate how leadership is related to the many aspects of individual and group effectiveness discussed in this volume.

DEFINING MILITARY LEADERSHIP

The concept of leadership in academic and professional military literature is generally understood as the use of social influence to direct other people toward some aim or goal.² Most of literature on leadership examines it in an institutional or organizational environment, where the basis of social influence is as a combination of personal power and position power. Personal power is influence arising from one's reputation, expertise or connections. Position power is influence arising from a leader's control over aspects of working life valued by others, such as information, rewards or working conditions, which leaders assign as part of the authority conferred on them. Thus, organizational leadership can be understood as an individual's purposeful use of personal and position power to influence others to achieve goals sought by the leader's organization.

Retired U.S. Army General Walter Ulmer offered the following definition of leadership in a military context:

In any Army, in any time, the purpose of "leadership" is to get the job done. Competent military leaders develop trust, focus effort, clarify objectives, inspire confidence, build teams, set the example, keep hope alive, rationalize sacrifice. For this century or the next, there is little mystery about requisite leader competencies or behaviors. Desirable qualities and skills may vary a bit, but the basic formula for leader success has changed little in 2,000 years.³

Ulmer's focus on getting the job done reflects a broadly shared view within the military profession. Yet his definition is too narrow. While it does define the kind of leadership germane to small tactical teams, his definition neglects other facets of leadership that leaders require to get the job done outside that domain.

CAF leadership doctrine's *Leadership in the Canadian Forces: Conceptual Foundations* offers a broader definition of effective military leadership:

Directing, motivating, and enabling others to accomplish the mission professionally and ethically, while developing or improving capabilities that contribute to mission success.⁴

The CAF definition contains three elements neglected in Ulmer's definition. First, leaders are responsible for "directing, motivating, and enabling others," which makes it explicit that leaders must engage in a broad range of leadership behaviours. The second difference is the distinction drawn between *leading people* and *leading the institution*. Leading the institution by "developing or improving capabilities that contribute to mission success" means creating the broader institutional conditions that enable the leading people type of leadership Ulmer describes. The third point of divergence is the recognition of the significant difference between *getting the job done* and *setting the conditions that get the job done* through the use of direct and indirect leader influence. The following sections develop these key aspects of the CAF's leadership doctrine.

THE RANGE OF LEADER BEHAVIOURS

CAF leadership doctrine recognizes a range of effective leader behaviours beyond the command and control style of leadership implicit in Ulmer's definition, which holds that leaders have the right to impose their will on their subordinates. Figure 11.1 depicts effective behaviours by the degree of control leaders exert and the source of influence they draw upon. Notice that directive and contingent reward behaviours (left) involve the use of significant control, and that they are appropriate when the leader-follower-goal dynamics suggest that the leader needs to provide a high degree of clarity.⁵

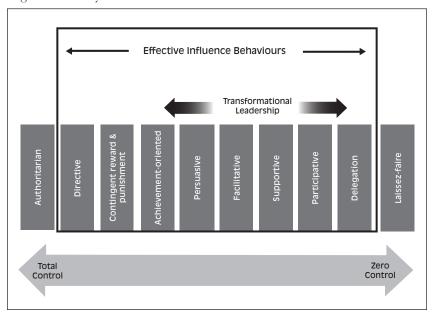


FIGURE 11.1: EFFECTIVE INFLUENCE BEHAVIOURS

The directive type of leadership focuses effort and prioritizes tasks – i.e., what needs to be done – in emergencies or other highly confused settings that require immediate action. In contrast, contingent reward approaches promote desired behaviours and punish undesirable ones – that is, focusing on how things should be done. In both cases, however, the underlying assumption is that the leader knows exactly what or how work is to be accomplished and that subordinates do not.

The arrow labelled transformational leadership in Figure 11.1 suggests that the majority of leader behaviours rely on open approaches, which most often involve two-way interactions: leaders exert some type of influence, but are also the subject of influence from subordinates. These approaches can be applied in accomplishing tasks, though their focus tends to be on long-term personal development, that is, the "slow growth attributes," which include enhancing affective commitment, internalizing professional values, facilitating independent moral reasoning, and developing the resilience needed to persevere under demanding circumstances.⁶

The next most important factor is the source of the leader's influence – position or person power – each of which is associated with different leader behaviours. Military functioning depends on formal authority: explicit rules and the emphasis placed on conformity and obedience are specifically designed to provide leaders with a high degree of position power. This power, however, is only useful when engaging in the controlling types of influence depicted on the left side of Figure 11.1. Further, directive leadership often produces only minimal compliance. And when this authority is perceived by others as unjustified or unethical, it can result in resistance, disobedience or other counter-productive actions,⁷ as Bradley discusses in Chapter 6 of this volume.

Conversely, transformational leadership relies on person power and the development of trust relationships. As Thompson et al. suggest in Chapter 7 of this book, the person power that comes from trust is earned through demonstrated competence, predictability, integrity and benevolence. Person power also plays a role in assuring obedience – as Bradley also suggested in Chapter 6 – and Blanc and Kelloway speak to the importance of leadership in stress responses in Chapter 2.

The range of leader influence behaviours and the use of position and personal power point to some of the complexities of effective military leadership. Leaders have to attend to multiple objectives, such as providing direction, mobilizing action and developing subordinates; however, they must also be capable of drawing on both position and personal power, so as to become a full-spectrum leader able to apply a wide range of influence

behaviours. Moreover, they must develop the expertise to correctly determine which kind of influence best suits a given objective. Put another way, the military provides senior leaders with increased position power through rank, powers of punishment and managerial control. Yet as leaders acquire greater position power, they must rely on it less, and on personal power more. Leaders reliant on position power alone can only engage in a limited range of leader influence behaviours; hence, they are very likely to encounter diminishing returns for their efforts.

LEADING PEOPLE AND LEADING THE INSTITUTION

While Ulmer's description of military leadership focuses on "getting the job done," the CAF understanding of effective leadership also refers to "developing or improving capabilities that contribute to mission success." This expansion of leadership is explained in *Conceptual Foundations*, where a contrast is drawn between *leading people* (the focus of Ulmer's description) and *leading the institution* (the broader facets which Ulmer omits).

Leading people involves developing individual, team, and unit capabilities and using those capabilities to execute tasks and missions.

Leading the institution is about developing and maintaining the [CAF]'s strategic and professional capabilities and creating the conditions for operational success.⁸

Effective military leadership is not just about getting the job done; it also involves setting the conditions that allow small teams to get the job done successfully. Leading people aims at developing individuals as members of teams, and it seeks to ensure that they accomplish assigned tasks the right way. Leading the institution means attending to broader, system-wide responsibilities that create the conditions for small team success.

The bipartite model of leadership – leading people and leading the institution – reflects a shift away from the earlier CAF perspective that the military organization functioned at three levels – strategic, operational, and tactical – with three corresponding forms of leadership, strategic,

operational, and tactical.⁹ Academic research and military practice suggested the new bipartite organizational model. On the one hand, it was evident that there was a task cycle that involved leaders in developing and employing small teams to achieve assigned objectives (i.e., leading people). Special forces leadership, for example, is highly task-oriented because of the high level of training and discipline required in special forces operations. On the other hand, leaders must handle strategic change that involves aligning the institution with the external environment, which in turn sets the conditions for small team success (i.e., leading the institution). The change from conventional military operations to whole of government or comprehensive approaches to national security is an example of the kind of strategic change that requires a different kind of leadership.¹⁰

The CAF doctrine recognizes that most military leaders will begin their careers leading people – that is, in providing direction, inspiration, correction, and clarity to individuals or small groups. As their careers progress, however, leaders will expand their leadership capacity to the broader responsibilities of setting the conditions for future success. And as leaders turn their attention to policy, doctrine, regulations and resources, their leader influence will move away from the direct style used in leading people. As a result, the CAF doctrine places a greater emphasis on inculcating institutional leadership earlier in members' careers and deeper in the ranks. The CAF's recent *CWO/CPO1 Strategic Employment Model* states that the CAF now expects its most senior chief warrant officers to have made a significant contribution to leading the institution at the strategic level.¹¹

As part of their obligations in leading the institution, officers and senior NCMs must also align their internal practices and culture with the external environment, which means the expectations of the citizenry. ¹² As spelled out in *Duty with Honour: The Profession of Arms in Canada*, military leaders must achieve the objectives assigned to them by the government, but in a manner that retains public confidence and support. This expectation is fraught with challenges, given the significant difference between civilian and military operations. ¹³ Chapter 5 by Messervey and Peach on cultivating ethical attitudes offers a good example of both the CAF's efforts in long-

range leader development and institutional leadership. Training military members to be ethical, after all, means socializing them in a way that sets the conditions for future success as well as leading the institution by aligning the CAF with the external environment.

CANADIAN ARMED FORCES LEADER EFFECTIVENESS FRAMEWORK

Ulmer asserted that "the basic formula for leaders' success has changed little in 2,000 years." The framework of leader effectiveness presented in *Conceptual Foundations* fundamentally challenges that assumption. In particular, subordinating transformational leadership functions to directive leadership has led to significant failures. ¹⁴ For this reason, *Conceptual Foundations* sought to achieve an appropriate balance across a range of competing outcome and conduct values. These were developed by incorporating Robert Quinn's organizational behaviour research on competing (outcome) values ¹⁵ and the *Duty with Honour* framework of professional and ethical (conduct) values to produce the CAF Leader Effectiveness Framework depicted below.

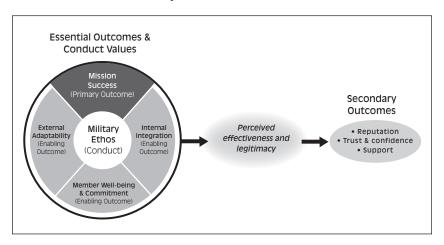


FIGURE 11.2: CAF LEADER EFFECTIVENESS FRAMEWORK

This framework challenges the assumption in much of the leadership literature that good leaders automatically know what to do or when to do it by acknowledging the likelihood of continuing tensions among

competing outcome values (what we should focus on doing) and conduct values (how we should do it). Common examples of competing values include the following: conflict between accomplishing the mission and force protection (in the framework, the mission success outcome versus member well-being and commitment); innovation, agility and creativity versus consistency, coordination and control (the external adaptability versus internal integration outcomes); and martial values (discipline, teamwork, warrior spirit, etc.) versus projecting fundamental Canadian values (dignity and respect for all, support for democratic ideals, etc.). Further, this framework also recognizes that leaders at all levels can influence second order outcomes, such as public and political confidence, trust and support for the institution. ¹⁷

Ulmer adequately defines the leading people domain. But the CAF have expanded their leadership doctrine to include leading the institution, which represents the broader responsibilities of leaders at all levels to align the profession of arms with the external environment and to set the conditions for small team success. Further, the differentiation between direct and indirect leader influence suggests that leaders need to consider secondary or tertiary means of exerting influence, even though they are unlikely to receive reliable feedback on the effect of their leadership. Finally, the Leader Effectiveness Framework and underlying competing values concepts suggest that leaders will commonly have to consider multiple and often conflicting dimensions with the recognition that leaders may not always get it right, or, when they do, that the dynamics of military leadership means that they can never rest on their laurels, but must constantly engage in effective leadership to maintain optimal effects. ¹⁹

LINKING LEADERSHIP AND THE HUMAN DIMENSIONS OF OPERATIONS

The aim of studying the human dimensions of operations is to maximize both human well-being and human effectiveness before, during and after operations. We can summarize the role played by leadership in realizing these objectives by looking at how the CAF's leadership doctrine is *applied* by leaders. Recall, first, that leader influence can be direct or indirect:

direct influence is the more visible, while indirect is the "unseen hand" of leadership at work in more diffuse ways. Second, recall that leadership has two aims: Leading people focuses on mission success, while leading the institution focuses on setting the conditions for small team success. Now observe that in both cases leadership can be applied in either a responsive or a preparatory manner. Responsive leadership is a logical reaction to actual changes in the immediate context, where leaders provide direction when tasks change, provide feedback to enable personal development, or provide support when individuals need assistance. Of course, leaders must also be proactive in anticipating future contexts. Leaders must develop individual and group characteristics, engage in deep socialization, and shape operant culture based on a consideration of a range of plausible future requirements.

Once integrated together, we can posit that leaders respond to present contexts or prepare for future requirements using direct or indirect influence in taking actions that can be characterized as leading people or leading the institution. The following table summarizes the different foci.

	Responsive	Preparatory	
Direct	Command-related leadership	Structured individual and group development	
Indirect	Social and institutional support	Professional socialization	

TABLE 11.1: LEADERSHIP AND THE HUMAN DIMENSIONS OF OPERATIONS

Notice that the values in the body of the table can involve either leading people or leading the institution. Structured individual and group development, for example, involves directive leadership because it focuses on training individuals to perform their roles. Yet it will also involve leading the institution, because leaders will always look to improve training programs and to adapt them to future conditions. In any case, the four leadership functions in the table encapsulate the basic roles for CAF leaders in realizing human effectiveness.

Command-related Leadership. This label covers the well-known "leader in action" type activities, in which leaders scan for changes in the context and engage in what is often called adaptive performance management.²⁰

Common examples include issuing direction or assigning tasks, correcting mistakes or errors, providing individual feedback or adjusting resources, timelines and performance requirements. The imperative that leaders engage in visible, direct behaviours in response to changes is highlighted in several of the chapters in this book, including Bradley's (Chapter 6) discussion of means to avoid blind obedience, Thompson et al.'s (Chapter 7) presentation on both building trust and avoiding trust violations, and Chop and Davis's (Chapter 8) articulation of the importance of leaders having a full understanding of the context before taking decisions. This type of leadership can also serve as one of the "buffers" in the stress model presented by Blanc and Kelloway (Chapter 2), particularly when leaders address job demands by providing clarity, rationale, or structure, which can reduce the prevalence of stressors. Finally, Ivey's (Chapter 1) discussion of morale as something the enemy seeks to erode suggests that, in response, leaders would engage in visible behaviours to retain or rebuild morale when in action.

Structured Individual and Group Development. This type of leadership is also directive, and the leader's influence and intent are very clear to all involved. In training (whether individual, collective, or pre-deployment), the CAF provide a high degree of structure to ensure that individuals and teams develop the capabilities to ensure that they are prepared for a range of predicted future tasks. Realistic stress inoculation training discussed in Suurd Ralph's (Chapter 4) contribution to this volume is a paradigm example of structured individual and group development leadership that focuses on the human dimension. This form of leadership looks beyond conventional conditioning to developing military members' abilities to resist the impacts of operations. Similarly, McCreary and Fikretoglu's (Chapter 3) discussion of research into psychological resilience shows the CAF's leadership in enhancing human well-being and operational effectiveness.

While CAF professional development remains focused on acquiring knowledge and practising drills, its emphasis is shifting toward broader intellectual development and personal growth. Several of the chapters in this volume speak to this change. Chapter 5 by Messervey and Peach suggests the importance of this type of directive leadership (and the realistic training

associated with it) for developing ethical soldiers. The contributions to this volume by Thompson et al. (Chapter 7) and Blanc and Kelloway (Chapter 2) touch on the importance of building trust and enhancing confidence in leaders, two aspects which are commonly addressed through collective and pre-deployment training. Further, Chop and Davis (Chapter 8) speak to the expanded realm of education and personal growth suggested by the acquisition of cultural intelligence. Finally, Ivey's (Chapter 1) model of morale clearly links leadership to several of the constructs mentioned, including building trust, establishing an ethical climate and creating the individual and group factors that, in turn, generate high morale.

Social and Institutional Support. This domain of leadership is indirect and responsive, since it involves providing support to individuals, groups, and families in response to specific needs. And this domain spans both leading the institution and leading people because it requires policies, programs, and procedures, as well as active leadership to ensure access for those who require support. Several chapters in this volume speak to the importance of social and institutional support leadership and the consequences of a perceived lack of such support. McCreary and Fikretoglu (Chapter 3) discuss the positive effects of the Third Location Decompression program, while Blanc and Kelloway (Chapter 2) highlight the consequences of a perceived lack of organizational support on stress.

Sudom and Coulthard (Chapter 10) and Blais et al. (Chapter 9) speak directly to the importance of social and institutional support systems. More importantly, perhaps, these chapters also illustrate how indirect leadership exercised on secondary or tertiary levels can directly impact well-being and operational effectiveness. Blais et al.'s (Chapter 9) discussion of work reintegration is an example of the importance of leaders ensuring effective adjustment back into garrison and work life which, in turn, facilitates broader personal reintegration — an example of secondary influence at work. Both chapters highlight the crucial role of support to families. Families able to cope with deployments — and, as a result, able to reduce possible stressors from family life — are also able to help the service member make the psychological adjustments needed to reintegrate into home life. In effect, leadership in supporting the family ultimately supports the member.

Professional Socialization. The last quadrant pertains to the use of indirect and anticipatory leader influence. This form of leadership is explained in Duty with Honour²¹ and Conceptual Foundations through conduct values and leaders' responsibilities regarding the military ethos.²² In short, leaders are expected to engage in effective professional socialization, which aims at three broad outcomes: inculcating in the individual a set of values that should inform independent moral and ethical reasoning; establishing an appropriate social or psychological contract between the individual and the institution; and, influencing the individual and group norms, perceptions, expectations and worldviews which, collectively, underpin military culture.

Although professional socialization operates through indirect influence, it is expected to affect positively a number of factors related to human effectiveness in operations, ranging from motivation, commitment and persistence through appropriate sense making, reasoning and decisionmaking – all of which go to the core of transformational leadership, which aims to cultivate in individuals higher levels of self-insight, self-efficacy, and satisfaction. Bradley's (Chapter 6) chapter on obedience provides the clearest illustration of these facets of professional socialization: Inculcating all three factors mentioned above – shared values, establishing a psychological contract and shaping group culture – is essential to securing meaningful and effective obedience. Sudom and Coulthard's (Chapter 10) discussion of the 2008 Canadian Forces Family Covenant is another illustration of one of the facets of professional socialization. The attempt to better articulate the social contract between the profession and the family belongs to secondary- or tertiary-level leadership, which is intended to positively impact service members.

CONCLUDING REMARKS

I have posited that good leadership is essential in realizing individual and group effectiveness. In exploring the salient aspects of the CAF approach to leadership, we saw the need to move beyond focusing on ensuring small group effectiveness to setting the conditions for mission success, and that a range of leader influence behaviours was necessary for optimizing effectiveness in the human dimensions of operations. We

also saw the important roles of direct and indirect influence, and the need for leaders to engage in both responsive and preparatory activities. The four-quadrant synopsis of full-spectrum leadership – command-related leadership, structured development, social and institutional support, and professional socialization – attempted to summarize effective leadership that takes account of the human dimensions of operations, showing the role of leadership in addressing the concerns raised in the other chapters in this volume.

As a final observation, I note that leadership has always been an essential element in the profession of arms. Yet military leadership has evolved and must continue to evolve in the face of the changing environment. Ensuring member well-being goes hand-in-hand with mission success, and it will endure as a focus of leaders' responsibilities for the foreseeable future. It stands to reason, then, that additional research will be required to expand the CAF's understanding, articulation, and practice of effective military leadership in a way that incorporates the human dimensions of operations.

ENDNOTES

- Originating in the U.S. military literature, the common expression describes this
 environment as VUCA: volatility, uncertainty, complexity and ambiguity.
- There is a literature on self-leadership; however, this tends to be more about processes of self-insight, self-growth and personal motivation.
- Cited in Canadian Forces Leadership Institute (CFLI), Leadership in the Canadian Forces: Conceptual Foundations (Ottawa: Canadian Defence Academy, 2005), the quotation comes from W. F. Ulmer, "Military Leadership into the 21st Century," in Military Leadership: In Pursuit of Excellence, eds. W. E. Rosenback and R. L. Taylor (Boulder, CO: Westview Press, 2001).
- 4. CFLI, Conceptual Foundations, 30.
- 5. Chapter 6 in CFLI's *Conceptual Foundations* provides a more detailed discussion of the leader-follower-situation concept.
- As highlighted in several of the chapter here, a facet of resilience may also include mitigating the adverse effects that can arise from experiencing various stressors.
- 7. See the discussion in CFLI, Conceptual Foundations, 71–2.
- 8. Ibid., 5.
- 9. The perspectives of tactical, operational, and strategic leadership were incorporated in the previous CAF leadership doctrine published in 1973.
- 10. For further discussion, see B. Henry, Whole of Government Approach Applied to Canadian National Security (Toronto: Canadian Forces College, 2008).
- 11. See Chief of the Defence Staff, Beyond Transformation: The CWO/CPO1 Strategic Employment Model (Ottawa: Chief of Force Development, 2011).
- The expanded nature of military missions and aligning culture to societal trends are
 presented and integrated in A. C. Okros, "Rethinking 'Diversity' and 'Security',"

 Commonwealth and Comparative Politics, 47, no. 4 (2009): 346–73.
- 13. The federal government has undertaken to ensure that its workforce proportionately represents key Canadian demographics and that workplace practices are aligned with certain social values. This philosophy is illustrated in the concept that the military must reflect the society it serves. The net result is that the demands of military leadership are more than just getting the job done, or, more accurately, the "job" is more than mission accomplishment, which is the other taken-forgranted assumption in Ulmer's statement. For a more complete discussion of the private sector, public service, and military, see A. C. Okros, "Becoming an Employer of Choice: Human Resource Challenges within DND and the CF," in *The Public Management of Defence in Canada*, ed. Craig Stone (Waterloo, ON: Breakout Educational Network, 2009).

- 14. Specific examples of failure due to inappropriate leadership are presenting in D. Winslow, The Canadian Airborne Regiment in Somalia: A Socio-Cultural Inquiry (Ottawa: Commission of Inquiry into the Deployment of Canadian Forces to Somalia, 1997). For further discussion, see the four papers by K. W. J. Wenek on the development of the CFLI's Conceptual Foundations: Looking Ahead: Contexts of Canadian Forces Leadership Today and Tomorrow (Kingston, ON: Canadian Forces Leadership Institute, 2002); Defining Leadership (Kingston, ON: Canadian Forces (Kingston, ON: Canadian Forces Leadership Institute, 2003); Defining Effective Leadership in the Canadian Forces (Kingston, ON: Canadian Forces Leadership Institute, 2003); in particular, see Looking Back: Canadian Forces Leadership Problems and Challenges (Kingston, ON: Canadian Forces Leadership Institute, 2002).
- For the original work, see R. E. Quinn and J. Rohrbaugh, "A Spatial Model of Effectiveness Criteria: Towards a Competing Values Approach to Organizational Analysis," *Management Science*, 29 (1983): 363–77.
- 16. For a presentation of how the martial/warfighting values and Canadian values are integrated into the four Canadian Military Values, see Chapter 2 of CFLI, Duty with Honour: The Profession of Arms in Canada (Ottawa: Canadian Defence Academy, 2009).
- 17. While the link between actions on the ground and public perceptions are often referred to as the "strategic corporal," these second order outcomes are better viewed in the sociological sense of support for the military as a social institution. See James Burk's considerations of the military as having material and/or moral salience for the nation in "The Military's Presence in American Society, 1950–2000," in *Soldiers and Civilians: The Civil-Military Gap and American National Security*, eds. Peter D. Feaver and Richard H. Kohn (Cambridge, MA: MIT Press, 2001). General C. C. Krulak originally presented the concept of the strategic corporal in his 1997 speech to the National Press Club and subsequently published his ideas in a 1999 article, "The Strategic Corporal: Leadership in the Three Block War," *Marine Corps Gazette* 83, no. 1 (January 1999): 18–23.
- 18. Effective leadership requires feedback loops whereby leaders can receive confirmation that their behaviours generated the intended effects. Since indirect leadership often involves changing policies and programs, it will not always be immediately obvious that the changes brought about the intended result. For example, long-standing policies like bilingualism and the integration of women have been works in progress for decades.
- 19. The articulation of the full range of leader responsibilities is presented in CFLI, Conceptual Foundations Table 4.1. This table shows the additional facets of leader responsibilities, which were not included in previous articulations of military leadership. The discussion in the accompanying annex provides a comparison of the traditional focus, represented in the previous 10 Principles of Leadership

articulated by the Canadian Army. Of importance, these ten principles address only the leading people functions, with an emphasis on the Mission Success and Member Well-Being dimensions.

- 20. See in particular the discussion in CFLI, Conceptual Foundations, Chapter 6.
- 21. See, CFLI, Duty with Honour, Chapter 3, Section 4.
- 22. See, CFLI, Conceptual Foundations, 18-23, for an explanation of conduct values.

- Abodor, H. "A Decision Based Explanation of Trust in Interfirm Alliances." In *Current Topics in Management*, vol. 3, edited by M. A. Rahim, R. Golembiewski, and K. Mackenzie, 143-162. Pitscataway: Transaction Rutgers U. P., 2003.
- Adams, B. D. and J. A. Sartori. *Validating the Trust in Teams and Trust in Leaders Scales*, DRDC Toronto Contract Report 2006-008. Toronto: Defence Research and Development Canada, 2006.
- Adams, B. D. and R. D. G. Webb. *Model of Trust Development in Small Teams*, DRDC Toronto Contract Report 2003-016. Toronto: Defence Research and Development Canada, 2003.
- Adams, B. D., L. E. Bruyn, and G. Chung-Yan. *Creating Measures of Trust in Small Military Teams*, DRDC Contract Report 2004-077. Toronto: Defence Research and Development Canada, 2004.
- Adams, B. D, S. Waldherr, J. Sartori, and M. Thomson. Swift Trust in Distributed Ad Hoc Teams, DRDC Toronto Contract Report 2007-139. Toronto: Defence Research and Development Canada, 2007.
- Adams, B. D., L. A. King, and D. W. King. "Relationships of Job and Family Involvement, Family Social Support, and Work-Family Conflict with Job and Life Satisfaction." *Journal of Applied Psychology* 81 (1996): 411–20.
- Adler, A. B., P. T. Bartone, and M. A. Vaitkus. Family Stress and Adaptation During a U.S. Army Europe Peacekeeping Deployment. Heidelberg: U.S. Army Medical Research Unit Europe, 1995.
- Ahrens, C. E., M. D. Rich, and J. B. Ullman. "Rehearsing for Real Life: The Impact of the InterACT Sexual Assault Prevention Program on Self-Reported Likelihood of Engaging in Bystander Interventions." *Violence Against Women* 17, no. 6 (2011): 760–76.
- Ajzen, I. "The Theory of Planned Behavior." Organizational Behavior and Human Decision Processes 50 (1991): 179–211.
- Aldwin, C. M., M. R. Levenson, and A. Spiro. "Vulnerability and Resilience to Combat Exposure: Can Stress Have Lifelong Effects." *Psychology* and Aging 9 (1994): 34–44.

- Allen, N. J. "Organizational Commitment in the Military: A Discussion of Theory and Practice." *Military Psychology* 15 (2003): 237–53.
- Allen, T. D., D. E. L. Herst, C. S. Bruck, and M. Sutton. "Consequences Associated with Work-to-Family Conflict: A Review and Agenda for Future Research." *Journal of Occupational Health Psychology* 5 (2000): 278–308.
- Amen, D., L. Jellen, E. Merves, and R. Lee. "Minimizing the Impact of Deployment Separation on Military Children: Stages, Current Preventive Efforts, and System Recommendations." *Military Medicine* 153 (1988): 441–6.
- American Psychological Association. "The Road to Resilience Handout." 2012, http://www.apa.org/helpcenter/road-resilience.aspx#.
- Andrews, R. C. G., L. J. Colpe, D. K. Mroczek, S.-L. T. Normand, E. E. Walters, and A. M Zaslavsky. "Short Screening Scales to Monitor Population Prevalences and Trends in Non-Specific Psychological Distress." *Psychological Medicine* 32 (2002): 959–76.
- Army Ethics Programme. "Operational Ethics Training Direction, Army Training Authority Direction and Guidance on Ethics Training within LFDTS." Ottawa: Department of National Defence, unpublished PowerPoint document, 2011.
- Bailey, D. E. "Out of Sight, Out of Sync: Understanding Conflict in Distributed Teams." *Organization Science* 14 (2003): 615–32.
- Bakker, A. B. and E. Demerouti. "The Job-Demands Resources Model: State of the Art." *Journal of Managerial Psychology* 22 no. 3 (2007): 309–28.
- Bakker, A. B., E. Demerouti, T. W. Taris, W. B. Schaufeli and P. J. Schreurs. "A Multi-Group Analysis of the Job-Demands Resource Model in Four Home Care Organizations." *International Journal of Stress Management* 10 no. 1 (2003): 16–38.
- Bandura, A. Social Learning Theory. Englewood Cliffs: Prentice Hall, 1977.
- Banyard, V. L., M. M. Moynihan, and E. G. Plante. "Sexual Violence Prevention through Bystander Education: An Experimental Evaluation." *Journal of Community Psychology* 35, no. 4 (2007): 463–81.

- Barnes, C. M., J. Schaubroeck, M. Huth, and S. Ghumman. "Lack of Sleep and Unethical Conduct." *Organizational Behavior and Human Decision Processes* 115 (2011): 169–80.
- Bartone, P. T., A. B. Adler and M. A. Vaitkus. "Dimensions in Psychological Stress in Peacekeeping Operations." *Military Medicine* 163 (1998): 587–93.
- Bartone, P. T., R. J. Ursano, K. M, Wright and L. H. Ingraham. "The Impact of a Military Air Disaster on the Health of Assistance Workers: A Prospective Study." *Journal of Nervous and Mental Disease* 177 (1989): 317–28.
- Basoglu, M., S. Mineka, M. Paker, T. Aker, M. Livanou, and S. Gok. "Psychological Preparedness for Trauma as a Protective Factor in Survivors of Torture." *Psychological Medicine* 27 (1997): 1421–33.
- Batson, C. D. and E. R. Thompson. "Why Don't Moral People Act Morally? Motivational Considerations." *Current Directions in Psychological Science* 10, no. 2 (2001): 54–7.
- Beardsley, B. and K. D. Davis. "Applying Cultural Intelligence in the Canadian Forces." In *Cultural Intelligence and Leadership: An Introduction for Canadian Forces Leaders* edited by K. D. Davis, 97–117. Kingston: Canadian Defence Academy Press, 2009.
- Beauchamp, T. L., N. L. Bowe, and D. G. Arnold. *Ethical Theory and Business*, 8th Edition. Upper Saddle River, NJ: Pearson, 2009.
- Bentley, B. "Systems Theory, Systems Thinking and Culture." In *Cultural Intelligence and Leadership: An Introduction for Canadian Forces Leaders* edited by K. D. Davis, 1–8. Kingston: Canadian Defence Academy Press, 2009.
- Benton, A., E. Gelber, H. Kelley, and B. Liebling. "Reactions to Various Degrees of Deceit in a Mixed-Motive Relationship." *Journal of Personality and Social Psychology* 12 (1969): 170–80.
- Bercuson, D. Significant Incident: Canada's Army, the Airborne, and the Murder in Somalia. Toronto: McClelland and Stewart, 1996.

- Bernard, J. L. and C. S. Jara. "The Failure of Clinical Psychology Graduate Students to Apply Understood Ethical Principles." *Professional Psychology: Research and Practice* 17, no. 4 (1986): 313–5.
- Betan, E. J. "Toward a Hermeneutic Model of Ethical Decision Making in Clinical Practice." *Ethics & Behavior* 7, no. 4 (1997): 347–65.
- Betan, E. J., and A. L. Stanton. "Fostering Ethical Willingness: Integrating Emotional and Contextual Awareness with Rational Analysis." Professional Psychology: Research and Practice 30, no. 3 (1999): 295–301.
- Bethea, M. C. The Long War and the Forgotten Families: Dual-Military Couples, Strategy Research Report. Carlisle Barracks: U.S. Army War College, 2007.
- Bigley, G. and J. Pearce. "Straining for Shared Meaning in Organization Science: Problems of Trust and Distrust." *Academy of Management Review* 23 (1998): 405–21.
- Bindman, S. "Death in Somalia." The Montreal Gazette, March 18, 2004.
- Black, E. R. Combat Stress Management: A Literature Summary, Technical Note 8/87. Willowdale, Ontario: Defence Research and Development Canada, 1987.
- Blais, A.-R. and M. M. Thompson. *The Trust in Teams and Trust in Leaders Scale: A Review of Their Psychometric Properties and Item Selection*, DRDC Toronto Technical Memorandum 2009-161. Toronto: Defence Research and Development Canada, 2009.
- Blais, A.-R., M. M. Thompson and D. R. McCreary. *Postdeployment Reintegration Measure: Psychometric Replication and Preliminary Validation Results*, DRDC Technical Report 2005-277. Toronto: Defence Research and Development Canada, 2005.
- Blais, A.-R., M. M. Thompson, A. Febbraro, D. Pickering and D. Mc-Creary. *The Development of a Multidimensional Measure of Postdeployment Reintegration: Initial Psychometric Analyses & Descriptive Results*, DRDC Technical Report 2003-142. Toronto: Defence Research and Development Canada, 2003.

- Blais, A.-R., M. M. Thompson, and D. R. McCreary. The Post-Deployment Reintegration Scale: Associations with Organizational Commitment, Job-Related Affect, and Career Intentions. DRDC Toronto Technical Report 2006-192. Toronto: Defence Research and Development Canada, 2006.
- Blais, A.-R., W. Sullivan-Kwantes, and D. McCreary. Post-Deployment Reintegration Experiences of AF Personnel: Implications for Scale Development. Defence R&D Canada, 2006.
- Blanc, J.-R. S. "The Effect of Combat Exposure on Soldiers' Ethical Attitudes: Preliminary Model and Mitigation Strategy," doctoral dissertation, Saint Mary's University, 2012.
- Blount, B. W., A. Curry, and G. I. Lubin. "Family Separations in the Military." *Military Medicine* 157 (1992): 76–80.
- Bolton, E. E., B. T. Litz, D. M. Glenn, S. Orsillo and L. Roemer. "The Impact of Homecoming Reception on the Adaptation of Peacekeepers Following Deployment." *Military Psychology* 14 no. 3 (2002): 241–51.
- Bolton, E. E., D. M. Glenn, S. Orsillo, L. Roemer and B. Litz. "The Relationship Between Self-Disclosure and Symptoms of Posttraumatic Stress Disorder in Peacekeepers Deployed to Somalia." *Journal of Traumatic Stress* 16 no. 3 (2003): 203–10.
- Bonanno, George A. "Loss, Trauma, and Human Resilience: Have We Underestimated the Human Capacity to Thrive After Extremely Aversive Events?" *American Psychologist* 59 (2004): 20–8.
- Boon, S. and J. Holmes. "The Dynamics of Interpersonal Trust: Resolving Uncertainty in the Face of Risk." In *Cooperation and Prosocial Behavior* edited by R. Hindle and J. Groebel, 167–82. New York: Cambridge U. P., 1991.
- Booth-Kewley, S. and H. S. Friedman. "Psychological Predictors of Heart Disease: A Quantitative Review." *Psychological Bulletin* 101 no. 3 (1987): 343–62.
- Boré, H. "Complex Operations in Africa." *Multinational Operations Newsletter* December (2009): 10–2.

- Boré, H. "Complex Operations in Africa: Operational Culture Training in the French Military." *Military Review* (Mar–Apr 2009): 65–71.
- Bourne, P. G. Men, Stress, and Vietnam. Boston: Little, Brown, 1970.
- Boutros-Ghali, B. Supplement to an Agenda for Peace. Position Paper of the Secretary-General on the Occasion of the Fiftieth Anniversary of the United Nations. New York: United Nations, 1995.
- Bowen, G. L., D. K. Orthner and L. I. Zimmerman. "Family Adaptation of Single Parents in the United States Army: An Empirical Analysis of Work Stressors and Adaptive Resources." *Family Relations* 42 (1993): 293–304.
- Boxmeer, Frank van, Christiaan Verwijs, Robert de Bruin, Jacco Duel, and Martin Euwema. "A Direct Measure of Morale in the Royal Netherlands' Armed Forces Morale Survey: Theoretical Puzzle, Empirical Testing and Validation." Paper presented at the 49th annual meeting of the International Military Testing Association, Gold Coast, Queensland, Australia, October, 2007.
- Bradley, J. P. "Psychological Foundations of Unethical Actions in Military Operations." In *New Wars and New Soldiers, Military Ethics in the Contemporary World* edited by P. Tripodi and J. Wolfendale, 217–38. Burlington, VT: Ashgate, 2011.
- Bradley, J. P. "When Loyalty to Comrades Conflicts with Military Duty." In *Aspects of Leadership: Ethics, Law and Spirituality* edited by P. Tripodi and C. Connelley. Quantico: Marine Corps University Press, forthcoming.
- Branzei, O., I. Vertinsky, and R. D. Camp. "Culture-Contingent Signs of Trust in Emergent Relationships." *Organizational Behavior and Human Decision Processes* 104 (2007): 61–82.
- Brewer, M. B. and N. Miller. *Intergroup Relations*. Pacific Grove: Brooks/Cole Publishing, 1996.
- Britt, T. W., C. A. Castro and A. B. Adler. "Military Performance: Common Themes and Future Directions." in *Military Life: The Psychology of Serving in Peace and Combat, Vol. 1: Military Performance* edited by T. W. Britt, C. A. Castro and A. B. Adler, 235–38. Westport: Praeger Security International, 2006.

- Britt, Thomas W. and James M. Dickinson. "Morale During Military Operations: A Positive Psychology Approach." In *Military Life: The Psychology of Serving in Peace and Combat: Volume 1, Military Performance*, edited by Thomas W. Britt, Carl A. Castro, Amy B. Adler, 157–84. Westport: Praeger Security International, 2006.
- Britt, Thomas W., Amy B. Adler, Paul D. Bliese, and DeWayne Moore. "Morale as Moderator of the Combat Exposure–PTSD Symptom Relationship." *Journal of Traumatic Stress* 26, no. 1 (February 2013): 94–101.
- Bromiley, P. and L. L. Cummings. "Transaction Costs in Organizations with Trust." In *Research on Negotiations in Organizations*, vol. 5, edited by R. Bies, B. Sheppard and R. Lewicki, 219–47. Greenwich, CT: JAI Press, 1995.
- Brown, A. L., B. A. Adams, J. J. Famewo, and C. L. Karthaus. *Trust in Culturally Diverse Teams*, DRDC Toronto Contract Report 2008-097. Toronto: Defence Research and Development Canada, 2008.
- Brown, K. J. *Human Dimensions of Operations: Norm Development 2004*, Sponsor Research Report 2005-02. Ottawa: Defence Research and Development Canada, 2005.
- Burk, James. "The Military's Presence in American Society, 1950–2000." In Soldiers and Civilians: The Civil-Military Gap and American National Security, edited by Peter D. Feaver and Richard H. Kohn. Cambridge, MA: MIT Press, 2001.
- Campise, R. L., S. Y. Geller and M. E. Campise. "Combat Stress." In Military Psychology: Clinical and Operational Applications edited by C. H. Kennedy and E. A. Zillmer, 215–40. New York: Guilford Press, 2006.
- Canadian Forces Leadership Institute. *Duty with Honour: The Profession of Arms in Canada*. Kingston: Canadian Defence Academy Canadian Forces Leadership Institute, 2003.
- Canadian Forces Leadership Institute. *Leadership in the Canadian Forces: Leading People*. Canadian Forces Leadership Institute, Department of National Defence. Kingston: Canadian Defence Academy Canadian Forces Leadership Institute, 2007.

- Canadian Forces Leadership Institute. *Leadership in the Canadian Forces: Doctrine*. Publication A-PA-005-000/AP-003. Kingston: Canadian Defence Academy Canadian Forces Leadership Institute, 2005.
- Canadian Forces Leadership Institute. Leadership in the Canadian Forces: Conceptual Foundations, Publication A-PA-005-000/AP-004. Kingston: Canadian Defence Academy Canadian Forces Leadership Institute, 2005.
- Casey, G. W., Jr. "Comprehensive Soldier Fitness: A Vision for Psychological Fitness in the U.S. Army." *American Psychologist* 66 (2011): 1–3.
- Cassel, R. "Building Trust in Air Force Leadership." *Psychology: A Journal of Human Behavior* 30 (1993): 4–15.
- Castro, C. A. "Considerations when Conducting Psychological Research during Peacekeeping Missions: The Scientist and the Commander." In *The Psychology of the Peacekeeper: Lessons from the Field* edited by T. W. Britt and A. B. Adler, 11–27. Westport: Praeger Publishers, 2003.
- Castro, C. A. and D. M. McGurk. "Battlefield Ethics." *Traumatology* 13, no. 4 (2007): 24–31.
- CBS News. "Javal S. Davis." *The Personnel*, http://www.cbsnews.com/2316-100_162-615518-11.html.
- Chajut, E. and D. Algom. "Selective Attention Improves Under Stress: Implications for Theories of Social Cognition." *Journal of Personality and Social Psychology* 85, no. 2 (2003): 231–48.
- Chandra, A., R. Burns, T. Tanielian, L. Jaycox, and M. Scott. "Understanding the Impact of Deployment on Children and Families: Findings from a Pilot Study of Operation Purple Camp Participants, Working Paper." Rand: Center for Military Health Policy Research, 2008.
- Cheney, P. "Death and Dishonour." The Montreal Gazette, July 16, 1994.
- Chief of the Defence Staff. Beyond Transformation: The CWO/CPO1 Strategic Employment Model. Ottawa: Chief of Force Development, 2011.
- Chief of Military Personnel. "Canadian Forces Manual of Military Employment Structure 2-1: Job Based Specifications for the Chaplain."

- Military Personnel Command Defence Wide Area Network Site, http://cmp-cpm.forces.mil.ca/dgmp/dpgr/downloads/specifications/english/OS_E_CHAPLAIN_00349.doc.
- Chief of Military Personnel. "Directorate of History and Heritage Music." Military Personnel Command Defence Wide Area Network Site, http://cmp-cpm.forces.mil.ca/dhh-dhp/musi/index-eng.asp.
- Chief of Military Personnel. "Lines of Operation." Military Personnel Command Defence Wide Area Network Site, http://cmp-cpm. forces.mil.ca/index-eng.asp.
- Clausewitz, Carl von. *On War*. Edited and translated by Michael Howard and Peter Paret. Princeton: Princeton University Press, 1976.
- Claybourn, M. and B. Spinner. *An Evaluation of the Stage Model of Operational Deployment*. Department of Psychology, University of New Brunswick. New Brunswick, Canada, 2007.
- Claypool, M., K. Claypool and F. Damaa. "The Effects of Frame Rate and Resolution on Users Playing First Person Shooter Games." 2www.cs.wpi.edu/~claypool/papers/fr-rez/paper.pdf.
- Coker, A. L., P. Cook-Craig, C. M. Williams, B. S. Fisher, E. R. Clear, L. S. Garcia and L. M. Hegge. "Evaluation of Green Dot: An Active Bystander Intervention to Reduce Sexual Violence on College Campuses." Violence Against Women 17, no. 6 (2011): 777–96.
- Collins, J. J., and T. O. Jacobs. "Trust in the Profession of Arms." In *The Future of the Army Profession* edited by L. J. Matthews, 39–58. Boston: McGraw Hill Higher Education, 2002.
- Connor, Kathryn M. and J. R. T. Davidson. "Development of a New Resilience Scale: The Connor–Davidson Resilience Scale (CD-RISC)." Depression and Anxiety 18 (2003): 76–82.
- Connor, W. M. "Establishing Command Intent A Case Study: The Encirclement of the Ruhr, March 1945." In *The Human in Command: Exploring the Modern Military Experience* edited by C. McCann and R. Pigeau, 93–110. New York: Kluwer Academic/ Plenum, 2000.

- Costa, A., R. Roe and T. Taillieu. "Trust within Teams: The Relation with Performance Effectiveness." *European Journal of Work and Organizational Psychology* 10 (2001): 225–44.
- Cox, A. Unit Cohesion and Morale in Combat: Survival in a Culturally and Racially Heterogeneous Environment. Fort Leavenworth: United States Army Command and General Staff College, 1996.
- Coyne, James C. and Howard Tennen. "Positive Psychology in Cancer Care: Bad Science, Exaggerated Claims, and Unproven Medicine." *Annals of Behavioral Medicine* 39 (2010): 16–26.
- Currall, S. and T. Judge. "Measuring Trust between Organizational Boundary Persons." *Organizational Behavior and Human Decision Processes* 64 (1995): 151–70.
- Currie, S. L. and A. L. Day. Exploring the Relationships between Psychological Health, Coping and Turnover Intentions in Military Personnel: Examining Scale Factor Structures and Modelling of Variables, Technical Note 2010-002. Ottawa: Defence Research and Development Canada, 2010.
- Currie, S. L., A. L. Day and E. K. Kelloway. "Bringing the Troops Back Home: Modeling the Postdeployment Reintegration Experience." *Journal of Occupational Health Psychology* 16 no. 1 (2011): 38–47.
- Daddis, G. A. "Understanding Fear's Effect on Unit Effectiveness." *Military Review* 84, no. 4 (2004): 22–7.
- Davis, K. D. "Cultural Foundations." *Cultural Intelligence and Leadership: An Introduction for Canadian Forces* Leaders edited by K. D. Davis, 41–52. Kingston: Canadian Defence Academy Press, 2009.
- Day, A. "Somalia Redux? The Yahoo Defence, Terminal Bullshit Syndrome and the Myth of the Isolated Incident." In *From the Outside Looking In: Media and Defence Analyst Perspectives on Canadian Military Leadership* edited by B. Horn, 149–51. Kingston: Canadian Defence Academy Press, 2005.
- Defence Ethics Program. Fundamentals of Canadian Defence Ethics. Ottawa: Department of National Defence, 2002.

- Deffenbacher, J. L. and R. S. Stark. "Relaxation and Cognitive-Relaxation Treatment of General Anger." *Journal of Counseling Psychology* 39 (1992): 158–67.
- Deffenbacher, J. L., E. R. Oetting, and R. A. DiGiuseppe. "Principles of Empirically Supported Interventions Applied to Anger Management." *The Counseling Psychologist* 30, no. 2 (2002): 262–80.
- Dekker, Inez and Gary Ivey. The Evolution of the Unit Morale Profile as an Organizational Consulting Tool in the Canadian Forces, Director General Military Personnel Research and Analysis Technical Memorandum 2012-019. Ottawa: Defence Research and Development Canada, 2012.
- Deluga, R. J. "The Relation between Trust in Supervisor and Subordinate Citizenship Behavior." *Military Psychology* 7 (1995): 1–16.
- Demerouti, E., A. Bakker, F. Nachreiner and W. Schaufeli. "The Job Demands-Resources Model of Burnout." *Journal of Applied Psychology* 86 (2001): 499–512.
- Denson, T. F., M. M. Capper, M. Oaten, M. Friese, and T. P. Schofield. "Self-Control Training Decreases Aggression in Response to Provocation in Aggressive Individuals." *Journal of Research in Personality* 45 (2011): 252–6.
- Department of Army Headquarters. *The U.S. Army Study of the Human Dimension in the Future 2015–2024*, U.S. Army Training and Doctrine Pamphlet 525-3-7-01. Fort Monroe, VA: Department of the Army Headquarters, United States Army Training and Doctrine Command, 2008.
- Department of Defence (Australia). Foundations of Australian Military Doctrine, Australian Defence Doctrine Publication D, third edition. Canberra: Department of Defence, 2012, http://www.defence.gov.au/adfwc/Documents/DoctrineLibrary/ADDP/ADDP-D-FoundationsofAustralianMilitaryDoctrine.pdf.
- Department of Defense (U.S.). Department of Defense Dictionary of Military and Associated Terms, Joint Publication 1-02. Washington: Department of Defense, 2010; amended 2013, http://www.dtic.mil/doctrine/new_pubs/jp1_02.pdf.

- Department of National Defence. Canadian Forces Joint Doctrine Manual: Psychological Operations. Kingston: Department of National Defence, 2004, http://www.psywar.org/psywar/reproductions/CF_Psychological_Operations_Joint_Doctrine.pdf.
- Department of National Defence. Canadian Forces Operational Planning Process, Canadian Forces Joint Publication 5.0. Kingston: Department of National Defence, 2008), 2–9, http://publications.gc.ca/collections/collection_2010/forces/D2-252-500-2008-eng.pdf.
- Department of National Defence. *Canadian Military Doctrine*, Canadian Forces Joint Publication 1.0. Kingston: Department of National Defence, 2009, http://www.cfd-cdf.forces.gc.ca/cfwc-cgfc/Index/JD/CFJP%20-%20PDF/CFJP%2001/CFJP-01_Cdn_Mil_Doctrine_EN_2011_09.pdf.
- Department of National Defence. Department of National Defence and Canadian Forces Code of Values and Ethics, http://www.dep.forces.gc.ca/depped/code/code-eng.aspx.
- Department of National Defence. *Joint Intelligence Doctrine Manual*, B-GJ-005-200/FP-000. Ottawa: Department of National Defence, 2003.
- Department of National Defence. *Mental Health Continuum Model*. Ottawa: Department of National Defence, 2011. http://www.forces.gc.ca/health-sante/ps/mh-sm/r2mr-rvpm/pub/pc-cp-eng.asp.
- Department of National Defence. *Road to Mental Readiness*. Last modified March 25, 2011, http://www.forces.gc.ca/health-sante/ps/mh-sm/r2mr-rvpm/pub/am-am/toc-tdm-eng.asp.
- Department of National Defence. The Code of Conduct After Capture for the Canadian Forces. Ottawa: Department of National Defence, 2000; rev. 2004.
- Devlin, P. and G. Moretti. Foreword. *Duty with Discernment: CLS Guidance on Ethics in Operations*, Strategic Edition. Ottawa: Directorate Army Public Affairs, 2009.
- DeWeerd, H. A., ed. Selected Speeches and Statements of General of the Army George C. Marshall Chief of Staff United States Army. Washington: Infantry Journal, 1945.

- Diagnostic and Statistical Manual of Mental Disorders, Revised Fourth Edition [DSM-IV]. Washington: American Psychiatric Association, 2000.
- Diener, E., S. C. Frasier, A. L. Bearman, and R. T. Kelem. "Effects of Deindividuation Variables on Stealing among Halloween Trickor-Treaters." *Journal of Personality and Social Psychology* 33 (1976): 178–83.
- Director Military Family Services. Canadian Forces Family Covenant. 2008. http://www.familyforce.ca/sites/AllLocations/EN/About%20 Us/Pages/Covenant.aspx
- Directorate of Army Training. *Canadian Forces Operational Shooting Programme*, National Defence Report No. B-GL-382-001/FP-001. Kingston, ON: Director of Army Training, 2007.
- Directorate of Army Training. "From the Directorate of Army Training: Redefining Army Training." *The Army Doctrine and Training Bulletin* 3, no. 1 (2000): 12–6.
- Directorate of Army Training. "Redefining Army Training." *The Army Doctrine and Training Bulletin* 3, no. 1 (2005), 14.
- Dirks, K. T. "Trust in Leadership and Team Performance: Evidence from NCAA Basketball." *Journal of Applied Psychology* 85 (2000): 1004–12.
- Dirks, K. T. and D. L. Ferrin. "The Role of Interpersonal Trust in Organizational Settings." *Organization Science* 12 (2001): 450–67.
- Dobreva-Martinova, T. Confidence in Leadership: Replication of Murphy & Farley's Exploratory Analyses of the Unit Climate Profile, Contract Report 2001-149. Toronto: Defence Research and Development Canada, 2001.
- Dobreva-Martinova, T. Human Dimensions of Operations Project: An Overview, Directorate of Human Resources Research and Evaluation Sponsor Research Report. Ottawa: Defence Research and Development Canada, 1999.
- Dobreva-Martinova, T. Psychometric Analysis of the COPE Inventory Based on Survey of Deployed Canadian Forces Personnel, Sponsor Research Report 99-6. Ottawa: Defence Research and Development Canada, 1999.

- Dobreva-Martinova, T.. Psychometric Analysis of the Stress in Military Service Questionnaire Based on Surveys of Deployed Canadian Forces Personnel, Sponsor Research Report 98-16. Ottawa: Defence Research and Development Canada, 1998.
- Dobreva-Martinova, T., P.J. Murphy and K. M. Farley. "The Human Dimensions of Peacekeeping: Selective Analyses from the Canadian Experience." Paper presented at the 21st Annual Scientific Meeting of the International Society of Political Psychology, Montreal, 1998.
- Doney, P., J. Cannon, and M. Mullen. "Understanding the Influence of National Culture on the Development of Trust." *Academy of Management Review* 23 (1998): 601–20.
- Donovan, B. S., E. Padin-Rivera, T. Dowd and D. D. Blake. "Childhood Factors and War Zone Stress in Chronic PTSD." *Journal of Traumatic Stress* 9 (1996): 361–8.
- Doran, A. P., G. Hoyt, and C. Morgan III. "Survival, Evasion, Resistance and Escape (SERE) Training: Preparing Military Members for the Demands of Captivity." In *Military Psychology Clinical and Operational Applications* edited by C. Kennedy and E. Zillmer, 241–61. New York: The Guilford Press, 2006.
- Dore, R. "Goodwill and the Spirit of Market Capitalism." *British Journal of Sociology* 34 (1983): 459–82.
- Driskell, J. and B. Mullen. Simulation and Training for Stress Environments: A Meta-Analytic and Experimental Evaluation, ARI Research Note 95-38. Ft. Belvoir, VA: United States Army Research Institute for the Behavioral and Social Sciences, 1995.
- Driskell, J. and E. Salas. "Group Decision Making Under Stress." *Journal of Applied Psychology* 76 (1991): 473–8.
- Driskell, J., Eduardo Salas, and Joan H. Johnston. "Decision Making and Performance Under Stress." In *Military Life: The Psychology of Serving in Peace and Combat, Vol. 1, Military Performance* edited by T. W. Britt, A. Adler, and C. A. Castro, 128–54. New York: Praeger, 2006.
- Dursun, S. and K. Sudom. Impacts of Military Life on Families: Results from the Perstempo Survey of Canadian Forces Spouses, DGMPRA Technical

- Report 2009-001. Ottawa: Defence Research and Development Canada, 2009.
- Dyer, Gwynne. War. New York: Crown Publishers, 1985.
- Eid, J., W. Brun, J. C. Laberg, and B. H. Johnsen. "Participating in Prisoner-of-War Exercise: Stress Reactions and Coping." Paper presented at the 34th International Applied Military Symposium, Paris, May 25–28, 1998.
- Eisenhower, Dwight D. *Crusade in Europe*. Baltimore: John Hopkins University Press, 1948.
- Elangovan, A. R. and D. L. Shapiro. "Betrayal of Trust in Organizations." Academy of Management Review 23 (1998): 547–66.
- Elangovan, A. R., W. Auer-Rizzi, and E. Szabo. "Why Don't I Trust You Now? An Attributional Approach to Erosion of Trust." *Journal of Managerial Psychology* 22 (2007): 4–24.
- Engdahl, B. and J. A. Fairbank. "Former Prisoners of War: Highlights of Empirical Research." in *The Mental Health Consequences of Torture* edited by E. Gerrity, T. M. Keane and F. Tuma, 133–5. Dordrecht: Kluwer Academic, 2001.
- Enwald, H., N. Hirvonen, and T. Luoto. "Examining the Uses of Internet and Social Media among Men at Military Conscription Age." Paper presented at the ISSOME Information Science and Social Media 2011 Conference, August 24–26, 2012, Turku, Finland. http/www.issome2011.library2pointoh.fi/wp-content/.../08/issome2011_enwald.pdf. Retrieved September 6, 2011.
- Fairbank, J. A., D. J. Hansen and J. M. Fitterling. "Patterns of Appraisal and Coping across Different Stressor Conditions among Former Prisoners of War with and Without Posttraumatic Stress Disorder." *Journal of Consulting and Clinical Psychology* 59 no. 2 (1991): 274–81.
- Fairbank, J. A., W. E. Schlenger, J. M. Caddell and M. G. Woods. "Post-Traumatic Stress Disorder." In *Comprehensive Handbook of Psychopathology, Second Edition* edited by Patricia B. Sutker and Henry E. Adams, 145–65. New York: Plenum Press, 1993.

- Farley, K. Development of the Canadian Forces Stress in Military Operations Questionnaire, Technical Note 15/95. Willowdale, Ontario: Defence Research and Development Canada, 1995.
- Farley, K. and J. A. Veitch. "Measuring Morale, Cohesion and Confidence in Leadership: What are the Implications for Leaders?" *The Canadian Journal of Police & Security Services* 1 no. 4 (2003): 353–64.
- Fergusson, Bernard. The Wild Green Earth. London: Cassell, 1946.
- Fikretoglu, D. and D. R. McCreary. *Development of Norms for the Post-Deployment Reintegration Scale*. Toronto: Defence Research and Development Canada, 2010.
- Fikretoglu, D., A. Brunet, J. Poundja, S. Guay and D. Pedlar. "Validation of the Deployment Risk and Resilience Inventory in French-Canadian Veterans: Findings on the Relation between Deployment Experiences and Postdeployment Health." *Canadian Journal of Psychiatry* 51 no. 12 (2006): 755–63.
- Finkel, E. J., C. E. Rusbult, M. Kumashiro, and P. A. Hannon. "Dealing with Betrayal in Close Relationships: Does Commitment Promote Forgiveness?" *Journal of Personality and Social Psychology* 82 (2002): 956–74.
- Fisher, R. and S. Brown. *Getting Together: Building Relationships as We Negotiate*. London: Penguin, 1988.
- Fitz-Gerald, A. M. "Multinational Land Force Interoperability: Meeting the Challenge of Different Cultural Backgrounds in Chapter VI Peace Support Operations." *Choices: National Security and Interoperability* 8, no. 3 (2002): 1–22. www.irpp.org/choices/archive/vol8no3.pdf
- Flach, A. and A. Zijlmans. "Psychological Consequences of Being Taken Hostage During Peace Operations." In *Netherlands Annual Review of Military Studies* edited by J. L. Soeters and J. H. Rovers, 141–51. The Hague: Royal Netherlands Academy, 1997.
- Fontana, A. and R. Rosenheck. "Posttraumatic Stress Disorder among Vietnam Theater Veterans: A Causal Model of Etiology in a Community Sample." *Journal of Nervous & Mental Disease* 182 (1994): 677–84.

- Forand, A. R., G. Tousignant, C. Lemieux, and D. Matthews. "Ethical Dilemmas of Commanders on Operational Missions: Four views." in *The Many Faces of Ethics: Defence Proceedings of the Conference on Ethics in Canadian Defence*, October 24–25, 1996, 30–42. Ottawa: Defence Research and Development Canada, 1997.
- Ford, C. and R. Spaulding. "The Pueblo Incident: A Comparison of Factors Related to Coping with Extreme Stress." *Archives of General Psychiatry* 29 (1973): 340–43.
- Ford, J. D., D. Shaw, S. Sennhauser, D. Greaves, B. Thacker, P. Chandler, L. Schwartz and V. McClain. "Psychosocial Debriefing after Operation Desert Storm: Marital and Family Assessment and Intervention." Journal of Social Issues 49 (1993): 73–102.
- Frankel, H., L. R. Snowden, and L. S. Nelson. "Wives' Adjustment to Military Deployment: An Empirical Evaluation of a Family Stress Model." International Journal of Sociology of the Family 22 (1992): 93–117.
- French, J. R. P., and B. Raven. "The Bases of Social Power." in *Group Dynamics* edited by D. Cartwright and A. Zander. New York: Harper & Row, 1959.
- Friborg, O., O. Hjmemdal, J. H. Rosenvinge and M. Martinussen. "A New Rating Scale for Adult Resilience: What are the Central Protective Resources Behind Healthy Adjustment?" *International Journal of Methods in Psychiatric Research* 12 (2003): 65–76.
- Friedland, N. and G. Keinan. "Training Effective Performance in Stressful Situations: Three Approaches and Implications for Contrast Training." *Military Psychology* 4, no. 3 (1992): 157–74.
- Frone, M. R. "Work-Family Conflict and Employee Psychiatric Disorders: The National Co-Morbidity Survey." *Journal of Applied Psychology* 85 (2000): 888–95.
- Frone, M. R., M. Russell and M. L. Cooper. "Antecedents and Outcomes of Work-Family Conflict: Testing a Model of the Work-Family Interface." *Journal of Applied Psychology* 77 (1992): 65–78.
- Frone, M. R., M. Russell, and G. Barnes. "Work-Family Conflict, Gender, and Health Related Outcomes: A Study of Employed Parents in

- Two Community Samples." *Journal of Occupational Health Psychology* 1 (1996): 57–69.
- Fuentes, G. "Upgrades Bring Realism to Training." *Military Times*, August 14, 2010. http://www.militarytimes.com/news/2010/08/upgrades-bring-realism-081410w/.
- Gade, P. A., R. B. Tiggle, and W. R. Schumm. "The Measurement and Consequences of Military Organizational Commitment in Soldiers and Spouses." *Military Psychology* 15 (2003): 191–207.
- Gal, Reuven. "Unit Morale: From a Theoretical Puzzle to an Empirical Illustration An Israeli Example." *Journal of Applied Social Psychology* 16, no. 6 (1986): 549–64.
- Garabedian, K. and J.-R. S. Blanc. *The Human Dimensions of Operations Survey:*Summary of Task Force Afghanistan In-Theatre Results, Sponsor Research Report 2008-03. Ottawa: Defence Research and Development Canada, 2008.
- Garabedian, K. The Human Dimensions of Operations (HDO) Survey: A Qualitative Analysis of Three Postdeployment Surveys, Sponsor Research Report 2006-10. Ottawa: Defence Research and Development Canada, 2006.
- Garber, B. G. and M. A. Zamorski. "Evaluation of a Third-Location Decompression Program for Canadian Forces Members Returning from Afghanistan." Paper presented at the 26th Annual Meeting of the International Society for Traumatic Stress Studies, Montreal, 2010.
- Garber, Bryan G. and Mark A. Zamorski. "Evaluation of a Third-Location Decompression Program for Canadian Forces Members Returning from Afghanistan." *Military Medicine* 177 (2012): 397–403.
- Gavriel, A. J. D. "What is Cultural Intelligence?" Cultural-Intelligence.Net, retrieved June 28, 2012. http://www.cultural-intelligence.net/site/what_is_cultural_intelligence.html.
- Gavriel, A. D. J. "Red, White, or Pink SA? Understanding the Need for a Holistic Approach to Culture in Military Intelligence." *The Ganadian Army Journal* 13 no. 1 (2010): 74.

- Gavriel, A. J. D. "Cultural/Ethnographic Intelligence Support to COIN Ops." Paper presented at the Culture and Conflict Review: Conference on Culture, Cultural Modelling, Counterinsurgency and Conflict Behavior, Monterey, Naval Post Graduate School, March 24, 2009.
- Genert, W. E. 1976. "On Fostering Integrity." Air University Review 27, no. 6 (1976): 62–7.
- Gershoff, A. D. "You Done Me Wrong And that Ain't Right: The Role of Betrayal in Consumer Behaviour." *Advances in Consumer Research* 31 (2004): 339–42.
- Gino, F., M. E. Schweitzer, N. L. Mead, and D. Ariely. "Unable to Resist Temptation: How Self-Control Depletion Promotes Unethical Behaviour." Organizational Behavior and Human Decision Processes 115 (2011): 191–203.
- Goodwin, C. James. *Research in Psychology Methods and Designs*, 4th ed. New Jersey: John Wiley & Sons, 2005.
- Graham, J., B. A. Nosek, J. Haidt, R. Iyer, S. Koleva, and P. H. Ditto. "Mapping the Moral Domain." *Journal of Personality and Social Psychology* 101, no. 2 (2011): 366–85.
- Green, B. L., M. C. Grace, J. D. Lindy, G. C. Gleser and A. Leonard. "Risk Factors for PTSD and Other Diagnoses in a General Sample of Vietnam Veterans." *American Journal of Psychiatry* 147 (1990): 729–33.
- Grossman, D. On Combat: The Psychology and Physiology of Deadly Conflict in War and Peace, 2nd ed. Belleville, IL: PPCT Research Publications, 2007.
- Grossman, D. On Killing: The Psychological Cost of Learning to Kill in War and Society. New York: Back Bay Books, 1995.
- Haase, W. and M. Reinhold, *The Classical Tradition and the Americas*. Berlin: de Gruyter & Co., 1993.
- Hagman, J. D. Effects of Training Task Repetition on Retention and Transfer of Maintenance Skill, Research Report 1271. Alexandria, VA: U.S. Army Research Institute for the Behavioral and Social Sciences, 1980. http://www.dtic.mil/cgi-bin/GetTRDoc?AD=ADA101859.

- Haidt, J. and S. Kesebir. "Morality." In *Handbook of Social Psychology* edited by J. Haidt and S. Kesebir, 797–832. Hoboken, NJ: John Wiley & Sons, 2010.
- Hall, D. P. and J. A. Jansen. "Stress and Arousal in Deployment of a Combat Support Hospital." *Military Medicine* 160 (1995): 581–3.
- Haney, C., W. C. Banks, and P. G. Zimbardo. "Interpersonal Dynamics in a Simulated Prison." *International Journal of Criminology and Penology* 1 (1973): 69–97.
- Harris, J. H., M. D. Blair and H. M. O'Neill. *MWR Programs and Readiness Links*. Fairfax: Caliber Associates, 1995.
- Hawkins, Naoko. Thematic Analysis of Qualitative Text Recommendations for the Interpretation of Human Dimensions of Operations Survey and Unit Morale Profile Survey Data, Defence Research and Development Canada Technical Note 2013-001. Ottawa: Defence Research and Development Canada, 2012.
- Hazaleus, S. L. and J. L. Deffenbacher. "Relaxation and Cognitive Treatments of Anger." *Journal of Consulting and Clinical Psychology* 54 (1986): 222–6.
- Headquarters Air Force Personnel and Training Research Center. *Report of the Working Group on Survival Training*. Lackland Air Force Base, Texas: Air Research and Development Command, 1954.
- Henry, B. Whole of Government Approach Applied to Canadian National Security. Toronto: Canadian Forces College, 2008.
- Heuer, Jr., R. J. *Psychology of Intelligence Analysts*. Washington: Center for the Study of Intelligence, Central Intelligence Agency, 1999.
- Hiew, C. "Separated by Their Work: Families with Father Living Apart." Environment and Behavior 24 (1992): 206–25.
- Hinds, P. and M. Mortensen. "Understanding Conflict in Geographically Distributed Teams: An Empirical Investigation." *Organization Science* 16 (2005): 290–307.
- Hofling, C. K., E. Brotzman, S. Dalrymple, N. Graves, and C. M. Pierce. "An Experimental Study of Nurse-Physician Relationships." *Journal of Nervous and Mental Disease* 143 (1966): 171–80.

- Hoge, C. W., J. L. Auchterlonie, and C. S. Milliken. "Mental Health Problems, use of Mental Health Services, and Attrition from Military Service after Returning from Deployment to Iraq or Afghanistan." Journal of the American Medical Association 295 (2006): 1023–32.
- Holmes, J. "Trust and the Appraisal Process in Close Relationships." In Advances in Personal Relationships: A Research Annual, vol. 2, edited by W. Jones and D. Perlman, 57–104. London: Jessica Kingsley, 1991.
- Horn, Bernd and Daniel Lagacé-Roy. "Morale." In *The Military Leadership Handbook*, edited by Bernd Horn and Robert W. Walker, 402–13. Kingston: Canadian Defence Academy Press, 2008.
- Hosek, J. R, J. Kavanaugh and L. L. Miller. *How Deployments Affect Service Members*. Adobe Digital Editions version, 2006. http://www.rand.org/pubs/monographs/MG432.html.
- Hotopf, M., A. David, L. Hull, K. Ismail, C. Unwin and S. Wessely. "The Health Effects of Peacekeeping (Bosnia, 1992–1996): A Cross-Sectional Study-Comparison with Nondeployed Military Personnel." *Military Medicine* 168 no. 5 (2003): 408–13.
- Hourani, L. L., P. N. Kizakevich, R. Hubal, J. Spira, L. B. Strange, D. B. Holiday, S. Bryant, and A. N. McLean. "Predeployment Stress Inoculation Training for Primary Prevention of Combat-Related Stress Disorder." Journal of Cyber Therapy and Rehabilitation 4, no. 1 (2011): 101–17.
- Huebner, A. and J. Mancini. Adjustments Among Adolescents in Military Families when a Parent is Deployed, Final Report to the Military Family Research Institute and Department of Quality of Life Office, Military Family Research Institute. West Lafayette, IN: Purdue University, 2005.
- Huntington, S. P. The Soldier and The State: The Theory and Politics of Civil–Military Relations. Cambridge: Belknap, 1957.
- Ingraham, Lee H. and Frederick J. Manning. "Cohesion: Who Needs it, What is it, and How do we get it to them?" *Military Review* 61, no. 6 (June 1981): 3–12.
- Inness, M. and J. Barling. "Violence in Peacekeeping." In *Handbook of Work-place Violence* edited by E. K. Kelloway, J. Barling and J. J. Hurrell, Jr., 309–29. Thousand Oaks: Sage, 2006.

- Inzana, C. M., J. Driskell, E. Salas, and J. H. Johnston. "Effects of Preparatory Information on Enhancing Performance under Stress." *Journal of Applied Psychology* 81 (1996): 429–35.
- Ivey, G. W. Human Dimensions of Operations: Conduct-After-Capture Training, Assessment Phase II, Task Outcome Report. Ottawa, ON, Canada: The Technical Cooperation Program, 2011.
- Ivey, G. W. and M. Therrien. Psychological Distress Levels among TF 1-08/TF3-08, Human Dimensions of Operations (HDO) Survey Respondents, Letter Report 1150-1, DROOD 3-2. Ottawa: Defence Research and Development Canada, 2010.
- Ivey, G. W. Human Dimensions of Operations: Conduct-After-Capture Training, Assessment Phase III, Task Outcome Report. Ottawa, ON, Canada: The Technical Cooperation Program, 2012.
- Ivey, G. W., J.-R. S. Blanc, M. Therrien and H. McCuaig Edge. "Human Dimensions of Operations Project." Paper presented at the Annual Conference of the International Military Testing Association, Tartu, Estonia, 2009.
- Ivy, L. A Study in Leadership: The 761st Tank Battalion and the 92nd Division in World War II. Fort Leavenworth: United States Army Command and General Staff College, 1995.
- Izzo, R., J. A. Lapointe, M. Villeneuve and D. Columbe. "Measuring Indicators of Human Readiness in Peace Support Operations." Paper presented at the 42nd International Military Testing Association Conference, Edinburgh, Scotland, 2000.
- Jacobson, E. Progressive Relaxation. Chicago: University of Chicago P., 1938.
- Jensen, P. S., D. Martin and H. K.Watanabe. "Children's Response to Parental Separation During Operation Desert Storm." Journal of American Academy of Child and Adolescent Psychiatry 35 (1996): 433–41.
- Jensen, P., D. Grogan, S. Xenakis and M. Bain. "Father Absence: Effects on Child and Maternal Psychopathology." Journal of the American Academy of Child and Adolescent Psychiatry 28 (1989): 171–75.

- Jex, S. M. Stress and Job Performance: Theory, Research and Implications for Managerial Practice. Thousand Oaks: Sage, 1998.
- Johnson, D. R., H. Lubin, A. Fontana, S. Southwick, and D. Charney. "The Impact of the Homecoming Reception on the Development of Posttraumatic Stress Disorder: The West Haven Homecoming Stress Scale (WHHSS)." Journal of Traumatic Stress 10 (1997): 259–77.
- Johnson, T. H. and M. C. Mason. "Refighting the Last War Afghanistan and the Vietnam Template." *Military Review* (Nov–Dec 2009): 2–14.
- Johnston, J., P. Bradley, D. Charbonneau, and S. Campbell. *The Army Culture-Climate Survey*. Kingston: Royal Military College of Canada, 2004.
- Joint Chiefs of Staff. *Doctrine for the Armed Forces of the United States*, Joint Publication 1. Washington: Joint Chiefs of Staff, 2013, http://www.dtic.mil/doctrine/new_pubs/jp1.pdf.
- Jolly, R. A. Military Man, Family Man: Crown Property? London: Brassey's Defence Publishers, 1987.
- Jones, D. "Found: The My Lai Monster of Massacre." *Daily Mail*, October 6, 2007.
- Kagan, D. The Peloponnesian War. Toronto: Penguin, 2003.
- Karrasch, A. I. "Antecedents and Consequences of Organizational Commitment." *Military Psychology* 15 (2003): 225–36.
- Kassin, S., S. Fein, and H. R. Markus. Social Psychology. Belmont, CA: Wadsworth Cengage Learning, 2011.
- Kellett, A. Combat Motivation. Boston: Kluwer-Nijhoff, 1982.
- Kelley, H. H. and J. W. Thibaut. *Interpersonal Relations: A Theory of Interdependence*. New York: John Wiley and Sons, 1978.
- Kelley, M. I. "Military-Induced Separation in Relation to Maternal Adjustment and Children's Behaviors." *Military Psychology* 6 (1994): 163–76.

- Kelley, M., E. Hock, K. Smith, M. Jarvis, J. Bonney, and M. Gaffney. "Internalizing and Externalizing Behavior of Children with Enlisted Navy Mothers Experiencing Military-Induced Separation." *Journal of American Academy of Child and Adolescent Psychiatry* 40 (2001): 464–71.
- Kelloway, E. K. and A. L. Day. "Building Healthy Organizations: What We Know So Far." *Canadian Journal of Behavioural Science* 37 (2005): 223–36.
- Kelman, H. C. "Further Thoughts on the Processes of Compliance, Identification, and Internalization." In *Perspectives on Social Power*, edited by J. T. Tedeschi, 125–71. Chicago: Aldine, 1974.
- Kelman, H. C. and V. L. Hamilton. Crimes of Obedience: Toward a Social Psychology of Authority and Responsibility. New Haven: Yale University Press, 1989.
- Kessler, R. C., G. Andrews, L. J. Colpe, E. Hiripi, D. K. Mroczek, S. L. Normand, E. E. Walters and A. M. Zaslavasky. 2002. "Short Screening Scales to Monitor Population Prevalences and Trends in Non-Specific Psychological Distress." *Psychological Medicine* 32: 959–76.
- Kilpatrick, S. "Semrau Kicked Out of Canadian Forces." CBC News. http://www.cbc.ca/news/canada/story/2010/10/05/captain-robert-semrau-sentencing-afghanistan.html.
- King, L., D. King, J. Schuster, C. Park, J. Moore, D. Kaloupek, and T. Keane. "Captivity Stressors and Mental Health Consequences among Repatriated U.S. Navy, Army, and Marine Vietnam-era Prisoners of War." Psychological Trauma: Theory, Research, Practice and Policy 3, no. 4 (2011): 412–20.
- Kirkpatrick, D. L. and J. D. Kirkpatrick. *Evaluating Training Programs*, 3rd ed. San Francisco: Berrett-Koehler Publishers, 2006.
- Klein, H. A., A. Pongonis, and G. Klein. "Cultural Barriers to Multinational C2 Decision Making." Paper presented at the Command and Control Research and Technology Symposium CCRTS: Making Information Superiority Happen, Monterey, CA, October 24–26, 2000. http://www.dodccrp.org/events/2000_CCRTS/html/pdf_papers/Track_4/101.pdf.

- Knowles, R. "Positive Self-Talk." American Journal of Nursing 81, no. 3 (1981): 535.
- Koehler, J. J. and A. D. Gershoff. "Betrayal Aversion: When Agents of Protection become Agents of Harm." *Organizational Behavior and Human Decision Processes* 90 (2003): 244–61.
- Kossek, E. E. and C. Ozeki. "Work-Family Conflict, Policies, and the Job-Life Satisfaction Relationship: A Review and Directions for Organizational Behavior/Human Resources Research." Journal of Applied Psychology 83 (1998): 139–49.
- Kramer, R. M. "Trust and Distrust in Organizations: Emerging Perspectives, Enduring Questions." *Annual Review of Psychology* 50 (1999): 569–98.
- Krishnan, R., X. Martin, and N. G. Noorderhaven. "When Does Trust Matter to Alliance Performance?" Academy of Management Journal 49 (2006): 894–917.
- Krulak, C. C. "The Strategic Corporal: Leadership in the Three Block War." *Marine Corps Gazette* 83, no. 1 (January 1999): 18–23.
- Kulka, R. A., W. E. Schlenger, J. A. Fairbank, R. L. Hough, B. K. Jordan, C. R. Marmar, and D. S. Weiss. Trauma and the Vietnam War Generation: Report of Findings from the National Vietnam Veterans Readjustment Study, Brunner-Mazel Psychosocial Stress Series, No. 18. Philadelphia: Brunner-Mazel, 1990.
- Laberg, J. C., J. Eid, B. J., Johnsen, B. Ericksen and K. Zachariassen. "Coping with Interrogations." In *The Human in Command: Exploring the Modern Military Experience* edited by C. McCann and R. Pigeau, 333–44. New York: Academic/Plenum, 2000.
- Lamerson, C. D. "Peacekeeping Stress: Testing a Model of Organizational and Personal Outcomes." Ph.D diss., University of Guelph, 1995.
- Lamerson, C. D. and E. K. Kelloway. "Towards a Model of Peacekeeping Stress: Traumatic and Contextual Influences." *Canadian Psychology* 37 no. 4 (1996): 195–204.

- Lapidot, Y., R. Kark, and B. Shamir. "The Impact of Situational Vulner-ability on the Development and Erosion of Subordinates' Trust in a Formal Leader." *The Leadership Quarterly* 18 (2007): 16–34.
- Lapp, C. A., L. B. Taft, T. Tollefson, A. Hoepner, K. Moore, and K. Divyak. "Stress and Coping on the Home Front: Guard and Reserve Spouses Searching for a New Normal." *Journal of Family Nursing* 16 (2010): 45–67.
- Lauterbach, D. and S. Vrana. "The Relationship among Personality Variables, Exposure to Traumatic Events, and Severity of Posttraumatic Stress Symptoms." *Journal of Traumatic Stress* 14 (2001): 29–45.
- Lazarus, R. S. and S. Folkman. Stress, Appraisal, and Coping. New York: Springer, 1984.
- Leach, J. "Why People 'Freeze' in an Emergency: Temporal and Cognitive Constraints on Survival Responses." *Aviation, Space and Environmental Medicine* 75, no. 6 (2004): 539–42.
- Leary, Mark R., and Robin M. Kowalski. "An Introduction to Social-Clinical Psychology." in *The Interface of Social and Clinical Psychology: Key Readings in Social Psychology* edited by Robin M. Kowalski and Mark R. Leary, 3–10. New York: Psychology Press, 2004.
- Lee, Jennifer E. C., Kerry A. Sudom and Donald R. McCreary. "Higher-Order Model of Resilience in the Canadian Forces." *Canadian Journal of Behavioural Science* 43 (2011): 222–34.
- Levai, M., S. Kaplan, R. Ackermann and M. Hammock. "The Effect of Father Absence on the Psychiatric Hospitalization of Navy Children." *Military Medicine* 160 (1995): 104–06.
- Lewicki, R. and B. Bunker. "Developing and Maintaining Trust in Work Relationships." in *Trust in Organizations: Frontiers of Theory and Research* edited by R. Kramer and T. Tyler, 114–39. Thousand Oaks: Sage, 1996.
- Lewicki, R. J. and C. Wiethoff. "Trust, Trust Development, and Trust Repair." in *The Handbook of Conflict Resolution: Theory and Practice* edited by M. Deutsch and P. T. Coleman, 86–107. San Francisco: Jossey-Bas, 2000.

- Lewicki, R. J. and E. C. Tomlinson. 2003. "Trust and Trust Building. Beyond Intractability." in *Conflict Research Consortium* edited by G. Burgess and H. Burgess. Boulder: University of Colorado, 2003. http://beyondintractability.colorado.edu/essay/trust_building/.
- Lewicki, R. J., C. Wiethoff, and E. C. Tomlinson. "Trust and Organizational Justice." in *The Handbook of Organizational Justice* edited by J. Greenberg and J. Colquitt, 247–70. Mahwah, NJ: Lawrence Erlbaum Associates, 2005.
- Lewicki, R. J., D. McAllister, and H. Bies. "Trust and Distrust: New Relationships and Realities." *The Academy of Management Review* 23 (1998): 438–58.
- Linehan, M. Skills Training Manual for Treating Borderline Personality Disorder. New York: Guilford Press, 1993.
- Linkh, D. J. and S. M. Sonnek. "An Application of Cognitive-Behavioral Anger Management Training in a Military/Occupational Setting: Efficacy and Demographic Factors." *Military Medicine* 168, no. 6 (2003): 475–8.
- Litz, B. T., L. A. King, D. W. King, S. M. Orsillo, and M. J. Friedman. "Warriors as Peacekeepers: Features of the Somalia Experience and PTSD." Journal of Consulting and Clinical Psychology 65 (1997): 1001–10.
- Litz, B. T., L. A. King, D. W. King, S. M. Orsillo, and M. J. Friedman. "Post-Traumatic Stress Disorder Associated with Peacekeeping Duty in Somalia." *American Journal of Psychiatry* 154 (1997): 178–4.
- Litz, B. N. Stein, E. Delaney, L. Lebowitz, W. P. Nash, C. Silva, and S. Maguen. "Moral Injury and Moral Repair in War Veterans: A Preliminary Model and Intervention Strategy." *Clinical Psychology Review* 29 (2009): 695–706.
- Logan, K. V. "The Emotional Cycle of Deployment." U.S. Naval Institute Proceedings 113 (1987): 43–7.
- Luthar, Suniya S. and Dante Cicchetti. "The Construct of Resilience: Implications for Interventions and Social Policies." *Development and Psychopathology* 12 (2000): 857–85.

- Lutz, A., H. Slagter, J. Dunne, and R. Davidson. "Attention Regulation and Monitoring in Meditation." *Trends in Cognitive Sciences* 12, no. 4 (2008): 163–9.
- Maguen, S., B. T. Litz, J. L. Wang and M. Cook. "The Stressors and Demands of Peacekeeping in Kosovo: Predictors of Mental Health Response." *Military Medicine* 169 (2004): 198–206.
- Maguen, S., M. Suvak, and B. T. Litz. "Operational Stress." In *Military Life:* The Psychology of Serving in Peace and Combat, Vol. 2: Operational Stress edited by A. B. Adler, C. A. Castro, T. W. Britt, 141–69. Westport: Praeger Security International, 2006.
- Major, V. S., K. J. Klein, and M. G. Ehrhart. "Work Time, Work Interference with Family, and Employee Distress." *Journal of Applied Psychology* 87 (2002): 427–36.
- Manning, F. P. "Morale, Unit Cohesion, and Esprit de Corps." in *Hand-book of Military Psychology*, edited by R. Gal and A. D. Mangelsdorff, 453–70. Chichester: John Wiley and Sons, 1991.
- Marlowe, D. H. Psychological and Psychosocial Consequences of Combat and Deployment with Special Emphasis on the Gulf War [Adobe Digital Editions Version, 2001]. http://www.rand.org/pubs/monograph_reports/MR1018z11.html.
- Marshall, C. 2006. "On a Marine Base, Disbelief Over Charges." New York Times, May 30, 2006.
- Marshall, Samuel L. A. Men Against Fire: The Problem of Battle Command. Norman: University of Oklahoma Press, 2000.
- Martineau, J. C. Y. and K. Garabedian. *HDO Backgrounder*. Ottawa: Defence Research and Development Canada, 2008.
- Maslow, Abraham H. "A Theory of Human Motivation." *Psychological Review* 50, no. 4 (1943): 370–96.
- Mayer, R., J. Davis, and F. Schoorman. "An Integrative Model of Organizational Trust." *Academy of Management Review* 20 (1995): 709–34.

- McAllister, D. "Affect- and Cognition-Based Trust as Foundations for Interpersonal Cooperation in Organizations." *Academy of Management Journal* 38 (1995): 24–59.
- McCreary, D. R. and M. M. Thompson. "Development of Two Reliable and Valid Measures of Stressors in Policing: The Operational and Organizational Police Stress Questionnaires." *International Journal of Stress Management* 13 (2006): 494–518.
- McCreary, D. R., M. M. Thompson, and L. Pastò. "Predeployment Family Concerns and Soldier Well-Being." *The Canadian Journal of Police & Security Services* 1, no. 1 (2003): 33–40.
- McCuaig Edge, H. J. and G. W. Ivey. "The Mediation of Cognitive Appraisal on Combat Exposure and Psychological Distress." *Military Psychology* 24 (2012): 71–85.
- McEvily, B., V. Perrone, and A. Zaheer. "Trust as an Organizing Principle." *Organization Science* 14 (2003): 91–103.
- McFall, M. E., P. W. Mackay, and D. M. Donovan. "Combat-Related Post-traumatic Stress Disorder and Severity of Substance Abuse in Vietnam Veterans." *Journal of Studies on Alcohol* 53 (1992): 357–63.
- Meichenbaum, D. "Stress Inoculation Training: A Preventative and Treatment Approach." in *Principles and Practice of Stress Management*, 3rd ed., edited by P. M. Lehrer, R. L. Woolfolk and W. S. Sime, 497–516. New York: Guilford Press, 2007.
- Meichenbaum, D. A Clinical Handbook/Practical Therapist Manual for Assessing and Treating Adults with Post-Traumatic Stress Disorder (PTSD). Waterloo, ON: Institute Press, 1994.
- Meichenbaum, D. and J. Deffenbacher. "Stress Inoculation Training." *The Counselling Psychologist* 16, no. 1 (1988): 69–90.
- Meichenbaum, D. Stress Inoculation Training. New York: Pergamon, 1985.
- Meredith, Lisa S., C. D. Sherbourne, S. Gaillot, L. Hansell, H. V. Ritschard, A. M. Parker, and G. Wrenn. *Promoting Psychological Resilience in the U.S. Military*. Santa Monica: RAND Corporation, 2011.

- Messervey, D. L. "What Drives Moral Attitudes and Behaviour?" Director General Military Personnel Research and Analysis Technical Report. Ottawa: Defence Research and Development Canada, forthcoming.
- Meyer, J. P. and N. J. Allen. Commitment in the Workplace: Theory, Research, and Application. Thousand Oaks: Sage, 1997.
- Michel, P., T. Lundin, and G. Larsson. "Stress Reactions among Swedish Peacekeeping Soldiers Serving in Bosnia: A Longitudinal Study." *Journal of Traumatic Stress* 16 no. 6 (2003): 589–93.
- Milgram, S. "Some Conditions of Obedience and Disobedience to Authority." *Human Relations* 18, no. 1 (1965): 57–76.
- Milgram, S. *Obedience to Authority: An Experimental View*. New York: Harper and Row Publishers, 1974.
- Miller, D. T. and C. McFarland. "Pluralistic Ignorance: When Similarity is Interpreted as Dissimilarity." *Journal of Personality and Social Psychology* 53, no. 2 (1987): 298–305.
- Minister of Public Works and Government Services Canada. *Report of the Somalia Commission of Inquiry*, 1997. http://www.dnd.ca/somalia/vol1/v1c13be.htm.
- Ministry of Defence. *British Defence Doctrine*, Joint Defence Publication 0-01. London: Ministry of Defence, 2011, https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/33697/20111130jdp001_bdd_Ed4.pdf.
- Mishra, A. K. "Organizational Responses to Crisis: The Centrality of Trust." in *Trust in Organisations* edited by R. M. Kramer and T. R. Tyler, 261–87. London: Sage, 1996.
- Mitchell, J. "Bullet Background Paper on Scientific Basis for Resistance Training." Unpublished manuscript, 1995.
- Mitton, Todd M. "New Considerations in Morale for Canadian Operational Commanders." *The Canadian Army Journal* 10, no. 3 (2007): 27–43.
- Montgomery, Bernard L. *The Memoirs of Field-Marshal Montgomery*. London: Collins, 1958.

- Motowidlo, Stephan J. and Walter C. Borman. "Behaviorally Anchored Scales for Measuring Morale in Military Units." *Journal of Applied Psychology* 62, no. 2 (1977): 177–83.
- Moreland, R. L. and J. G. McMinn. "Gone But Not Forgotten: Loyalty and Betrayal Among Ex-Members of Small Groups." *Personality and Social Psychology Bulletin* 25 (1999): 1476–86.
- Morgan III, C. A., A. Doran, G. Steffian, G. Hazlett, and S. M. Southwick. "Stress-Induced Deficits in Working Memory and Visuoconstructive Abilities in Special Operations Soldiers." *Biological Psychiatry* 60, no. 7 (2006): 722–9.
- Morgan, C. III, S. Wang, A. Rasmusson, G. Hazlatt, G. Anderson, and D. Charney. "Relationship among Plasma Cortisol, Catecholamines, Neuropeptied Y, and Human Performance during Exposure to Uncontrollable Stress." *Psychosomatic Medicine* 63 (2001): 412–22.
- Morris, Errol. Standard Operating Procedure. DVD. Sony Pictures Classics, 2008.
- Murphy P. J. and K. M. L. Farley. "Morale, Cohesion, and Confidence in Leadership: Unit Climate Dimensions for Canadian Soldiers on Operations." in *The Human in Command: Exploring the Modern Military Experience* edited by C. McCann and R. Pigeau, 311–31. New York: Kluwer Academic/Plenum, 2000.
- Murphy, P. J. and K. M. J. Farley. *Postdeployment Status of CF Personnel: Preliminary Findings*, Sponsor Research Report 00-8. Ottawa: Defence Research and Development Canada, 1998.
- Murphy, P. J., K. M. J. Farley, and T. Dobreva-Martinova. "A Conceptual Approach to the Study of Stress in Peacekeeping Personnel." Paper presented to the NATO Research & Technology Organization Aerospace Medical Panel Symposium on Aeromedical Support Issues in Contingency Operations, Rotterdam, Netherlands, 1997.
- Murray, W. Strategy for Defeat: The Luftwaffe, 1933–1945. Maxwell Air Force Base: Air University Press, 1983.
- Myklebust, K. The Impact of Family Issues throughout the Deployment Cycle: The Human Dimension of Operations Project, Technical Note 99-3. Ottawa: Defence Research and Development Canada, 1999.

- NATO Standardization Agency. NATO Glossary of Terms and Definitions
 English and French. Brussels: NATO Standardization Agency,
 2013, http://nsa.nato.int/nsa/zPublic/ap/aap6/AAP-6.pdf.
- NATO. "A Leader's Guide to Psychological Support Across the Deployment Cycle." in *Stress and Psychological Support in Modern Military Operations*. Brussels: NATO Research and Technology Organization, 2005.
- Newby, J. H., J. E. McCarroll, R. J. Ursano, Z. Fan, J. Shigemura and Y. Tucker-Harris. "Positive and Negative Consequences of a Military Deployment." *Military Medicine* 170 (2005): 815–19.
- Noe, R. A. and M. Peacock. *Employee Training and Development*. Toronto: McGraw-Hill Ryerson, 2008.
- Northouse, P. G. Leadership: Theory and Practice, 5th ed. Los Angeles: Sage, 2010.
- Nunnally, J. C. Psychometric Theory. New York: McGraw Hill, 1967.
- Off, Carol. The Ghosts of Medak Pocket: The Story of Canada's Secret War. Toronto: Random House, 2004.
- Office of the Command Surgeon U.S. Forces Afghanistan & Office of the Surgeon General United States Army Medical Command. Mental Health Advisory Team (MHAT) 6 Operation Enduring Freedom 2009 Afghanistan, 2009. http://www.armymedicine.army.mil/reports/mhat/mhat_vi/MHAT_VI-OEF_Redacted.pdf.
- Office of the Surgeon Multinational Force-Iraq & Office of the Surgeon General United States Army Medical Command. Mental Health Advisory Team (MHAT) IV Operation Iraqi Freedom 05-07: Final Report, 2006. http://www.armymedicine.army.mil/reports/mhat/mhat_iv/MHAT_IV_Report_17NOV06.pdf.
- Okros, A. C. "Becoming an Employer of Choice: Human Resource Challenges within DND and the CF." In *The Public Management of Defence in Canada*, edited by Craig Stone. Waterloo, ON: Breakout Educational Network, 2009.
- Okros, A. C. "Rethinking 'Diversity' and 'Security'," *Commonwealth and Comparative Politics* 47, no. 4 (2009): 346–73.

- Orsillo, S. M., L. Roemer, B. T. Litz, P. Ehlich and M. J. Friedman. "Psychiatric Symptomatology Associated with Contemporary Peacekeeping: An Examination of Post-Mission Functioning among Peacekeepers in Somalia." *Journal of Traumatic Stress* 11 (1998): 611–25.
- Orthner, D. and R. Rose. Adjustment of Army Children to Deployment Separation, Army Child Deployment Adjustment Report, SAF V Survey Report. Chapel Hill: The University of North Carolina at Chapel Hill, 2005.
- Osiel, M. J. Obeying Orders: Atrocity, Military Discipline and the Law of War. New Brunswick, NJ: Transaction, 2002.
- Peddie, S. and K. Koundakjian. 2009. The Ideal Length of Tour: Perceptions of Canadian Forces Members Returning from Deployment, Director General Military Personnel Research and Analysis Technical Memorandum 2009-007. Ottawa: Defence Research and Development Canada.
- Perry, T. "Lawyers Defend Marines in Raid." Los Angeles Times, June 12, 2006.
- Pershing, J. L. "To Snitch or Not To Snitch? Applying the Concept of Neutralization Techniques to the Enforcement of Occupational Misconduct." *Sociological Perspectives* 46, no. 2 (2003): 149–78.
- Peters, J. and J. Nichol. Tornado Down. London: Penguin, 1992.
- Pickering, D. I. The Relationship between Perceived Organizational and Cultural Support and Soldiers' Post-Deployment Symptoms, DRDC Technical Report 2006-053. Toronto: Defence Research and Development Canada, 2006.
- Pigeau, R. and C. McCann. "Redefining Command and Control." in *The Human in Command: Exploring the Modern Military Experience* edited by C. McCann and R. Pigeau, 163–84. New York: Kluwer Academic / Plenum, 2000.
- Pincus, S. H., R. House, J. Christensen, and L. E. Adler. "The Emotional Cycle of Deployment: A Military Family Perspective." *Army Medical Department Journal* 6 (2001): 15–23.
- Potter, S. J. and M. M. Moynihan. "Bringing in the Bystander In-Person Prevention Program to a U.S. Military Installation: Results from a Pilot Study." *Military Medicine* 176 no. 8 (2011): 870–5.

- Pratt, L. I. and J. Barling. "Differentiating between Daily Events, Acute and Chronic Stressors." in *Occupational Stress: Issues and Development in Research* edited by J. R. Hurrell, L. R. Murphy, S. L. Sauter, and C. L. Cooper, 42–50. London: Taylor and Francis, 1988.
- Preventing Violence Across the Lifespan [PReVAiL]. "Definition of Psychological Resilience." http://prevail.fims.uwo.ca/theme2.html.
- Prindle, R.. "Social Media as a Military Communication Competency." *International Journal of Humanities and Social Sciences* 1 (2011): 203–07.
- Queen's Regulations and Orders. Ottawa: Department of National Defence, 2012.
- Quinn R. E. and J. Rohrbaugh. "A Spatial Model of Effectiveness Criteria: Towards a Competing Values Approach to Organizational Analysis." *Management Science* 29, no. 3 (1983): 363–77.
- Radloff, L. S. "The CES-D Scale: A Self-Report Depression Scale for Research in the General Population." *Applied Psychological Measurement* 1 (1977): 385–401.
- Rai, T. S. and A. P. Fiske. "Moral Psychology is Relationship Regulation: Moral Motives for Unity, Hierarchy, Equality, and Proportionality." *Psychological Review* 118, no. 1 (2001): 57–75.
- Rakel, D. Integrative Medicine. Philadelphia: Saunders, 2002.
- Reimer, D. J. "Afterword." in Out-Of-The-Box Leadership: Transforming the Twenty-First-Century Army and Other Top-Performing Institutions edited by J. G. Hunt, G. E. Dodge and L. Wong, 285–95. Stamford, C.T.: JAI Press, 1999.
- Repetto, P. B., C. H. Caldwell, and M. A. Zimmerman. "A Longitudinal Study of the Relationship between Depressive Symptoms and Cigarette Use among African American Adolescents." *Health Psychology* 24 no. 2 (2005): 209–19.
- Rescher, N. "In the Line of Duty: The Complexity of Military Obligation." The Joseph A. Reich, Sr., Distinguished Lecture on War, Morality, and the Military Profession, Issue 3. Colorado Springs: United States Air Force Academy, 1990.

- Reyes, V. A. and T. A. Hicklin. "Anger in the Combat Zone." *Military Medicine* 170, no. 6 (2005): 483–7.
- Riley, R. "The Darker Side of the Force: The Negative Influence of Cohesion." *Military Review* LXXXI, no. 2 (2001): 66–72.
- Robbins, S. P. and N. Langton. *Organizational Behaviour*, 3rd ed. Toronto: Pearson–Prentice Hall, 2003.
- Robertson, T. The Shame and The Glory: Dieppe. Toronto: McClelland and Stewart, 1962.
- Robins, C. J., S. Keng, A. G. Ekblad, and J. G. Brantley. "Effects of Mindfulness-Based Stress Reduction on Emotional Experience and Expression: A Randomized Controlled Trial." *Journal of Clinical Psychology* 68, no. 1 (2012): 117–31.
- Robinson, S. L. "Trust and Breach of the Psychological Contract." *Administrative Science Quarterly* 41 (1996): 574–99.
- Robinson, S. R. and E. W. Morrison. "The Development of Psychological Contract Breach and Violation: A Longitudinal Study." *Journal of Organizational Behavior* 21 (2000): 525–46.
- Rogers, K. and E. K. Kelloway. "Violence at Work: Personal and Organizational Outcomes." *Journal of Occupational Health Psychology* 2 (1997): 63–71.
- Rotter, J. B. "A New Scale for the Measurement of Interpersonal Trust." *Journal of Personality* 35 (1967): 651–65.
- Rousseau, D., S. Sitkin, R. Burt, and C. Camerer. "Not so Different After All: A Cross-Discipline View of Trust." Academy of Management Review 23 (1998): 393–404.
- Russell, J. "Iraq, COIN and Culture: 172nd Stryker Operations in Mosul, Iraq, 2005–2006." Paper presented at the Culture and Conflict Review: Conference on Culture, Cultural Modelling, Counterinsurgency and Conflict Behavior, Monterey, Naval Post Graduate School, March 24, 2009.
- Sartori, J., B. D. Adams, S. Waldherr, and K. Lee. *Trust Violation Scenarios*, DRDC Toronto Contract Report 2007-176. Toronto: Defence Research and Development Canada, 2007.

- Schaufeli, W. and A. Bakker. "Job Demands, Job Resources, and their Relationship with Burnout and Engagement: A Multi-Sample Study." *Journal of Organizational Behaviour* 25 (2004): 293–315.
- Schneider, F., J. Gruman, and L. Coutts. "Defining the Field of Applied Social Psychology." in Applied Social Psychology: Understanding and Addressing Social and Practical Problems edited by F. Schneider, J. Gruman, and L. Coutts, 3–21. London: Sage Publications, 2005.
- Schumm, W. R. and D. B. Bell. "Soldiers at Risk for Individual Readiness or Morale Problems during a Six-Month Peacekeeping Deployment to the Sinai." *Psychological Reports* 87 (2000): 623–33.
- Schwartz, J. 2007. "Realistic First Aid Combat for Recruits." *Maple Leaf* 10, no. 34 (2007): 12.
- Scull, K. Cohesion: What We Learned from COHORT. Carlisle Barracks: United States Army War College, 1990.
- Segal, M. W. "The Military and the Family as Greedy Institutions." *Armed Forces & Society* 1 (1986): 9–38.
- Seligman, M. E. P. and M. Csikszentmihalyi. "Positive Psychology." *American Psychologist* 55, no. 1 (2000): 5–14.
- Shamir, B., E. Brainin, E. Zakay, and M. Popper. "Perceived Combat Readiness as Collective Efficacy: Individual- and Group-Level Analysis." *Military Psychology* 12 (2000): 105–19.
- Sharpe, G. E., G. Dowler, G. Guillbault and A. English. "Perceptions of the Effectiveness of Third Location Decompression on Reducing Post-Deployment Reintegration Stress and Increasing Psychological Resiliency." Unpublished contractor's report, March 2007. Toronto: Defence Research and Development Canada.
- Shay, J. "Trust: Touchstone for a Practical Military Ethos." in *Spirit, Blood* and *Treasure: The American Cost of Battle in the 21st Century*, edited by D. E. Vandergriff, 3–20. Novato, CA: Presidio Press, 2001.
- Shorey, G. "Bystander Non-Intervention and the Somalia Incident." *Canadian Military Journal* (Winter 2000–2001): 19–28. http://www.journal.forces.gc.ca/vo1/no4/doc/19-28-eng.pdf.

- Simons, T. and R. Peterson. "Task Conflict and Relationship Conflict in Top Management Teams: The Pivotal Role of Intragroup Trust." *Journal of Applied Psychology* 85 (2000): 102–11.
- Singh, U. and K. B. L. Srivastava. "Interpersonal Trust and Organizational Citizenship Behavior." *Psychological Studies* 54 (2009): 65–76.
- Smith, L.V. Between Mutiny and Obedience: The Case of the French Fifth Infantry Division During World War I. Princeton: Princeton U. P., 1994.
- Smith, S. and E. Vela. "Environmental Context-Dependent Memory: A Review and Meta-Analysis." *Psychonomic Bulletin & Review* 8, no. 2 (2001): 203–20.
- Smith, S. M., A. M. Glenberg and R. A. Bjork. "Environmental Context and Human Memory." *Memory & Cognition* 6 (1978): 342–53.
- Snijders, Jolanda M. "Morale and Job Satisfaction." Paper presented at the 49th annual meeting of the International Military Testing Association, Gold Coast, Queensland, Australia, October, 2007.
- Solomon, Z., M. Weisenberg, J. Schwarzwald, and M. Mikulincer. "Post-Traumatic Stress Disorder among Soldiers with Combat Stress Reactions: The 1982 Israeli Experience." American Journal of Psychiatry 144 (1987): 448–54.
- Spielberger, C. D., R. L. Gorsuch, R. Lushene, P. R. Vagg, and G. A. Jacobs. *Manual for the State-Trait Anxiety Inventory*. Palo Alto, CA: Consulting Psychologists Press, 1983.
- Standard Operating Procedure, DVD, directed, produced, and written by E. Morris. United States: Sony Pictures Classics, 2008.
- Stapleton, J. A., S. Taylor, and G. J. G. Asmundson. "Effects of Three PTSD Treatments on Anger and Guilt: Exposure Therapy, Eye Movement Desensitization and Reprocessing, and Relaxation Training." *Journal of Traumatic Stress* 19, no. 1 (2006): 19–28.
- Stern, J. Terror in the Name of God: Why Religious Militants Kill. New York: HarperCollins, 2003.

- Stetz, M., M. Thomas, M. Russo, T. Stetz, R. Widzunas, J. McDonald, B. Wiederhold, and J. Romano. "Stress, Mental Health and Cognition: A Brief Review of Relationships and Countermeasures." Aviation, Space and Environmental Medicine 78, no. 5 (2007): 252–60.
- Stiehm, J. U.S. Army War College: Military Education in a Democracy. Philadelphia: Temple U. P., 2002.
- Stouffer, J. M., B. A. Adams, J. Sartori, and M. M. Thompson. "Trust." In *The Military Leadership Handbook* edited by B. Horn and R. W. Walker, 525–42. Toronto–Kingston: The Dundurn Group Publishers/Canadian Defence Academy, 2008.
- Stouffer, S. A. *The American Soldier: Combat and its Aftermath.* Princeton: Princeton U. P., 1949.
- Stouffer, S., E. A. Suchman, L. C. Devinney, S. A. Star, and R. M. Williams. *The American Soldier: Adjustment During Army Life. Studies in Social Psychology in World War II*, Vol. I. Princeton: Princeton U. P., 1949.
- Strader, O. K. Culture: The New Key Terrain Integrating Cultural Competence into JIPB. Fort Leavenworth: School of Advanced Military Studies, United States Army Command and General Staff College, 2006.
- Sudom, K. and S. Dursun. *The Relationship Study: Qualitative Findings*, Technical Report 2006-36. Ottawa: Defence Research and Development Canada, 2006.
- Sudom, K. Quality of Life among Military Families: Results from the 2008/2009 Survey of Canadian Forces Spouses, Director General Military Personnel Research and Analysis Technical Memorandum 2010-017. Ottawa: Defence Research and Development Canada, 2010.
- Sweeney, P. J. 2010. "Do Soldiers Reevaluate Trust in Their Leaders Prior to Combat Operations?" *Military Psychology* 22 (2010): 70–88.
- Sweeney, P. J., V. Thompson, and H. Blanton. "Trust and Influence in Combat: An Interdependence Model." *Journal of Applied Social Psychology* 39, no. 1 (2009): 235–64.

- Taylor, S., S. Woody, W. Koch, P. McLean, R. Paterson, and K. Anderson. "Cognitive Restructuring in the Treatment of Social Phobia." Behavior Modification 21 (1997): 487–511.
- The Kessler Psychological Distress Scale (K-10). Brief Reports Number 2002-14, 2002. http://www.ntc.gov.au/filemedia/bulletins/RAILKessler-FactSheetAug2006.pdf.
- The Royal Canadian Regiment Charter. *Royal Canadian Regiment Regimental Standing Orders*. Petawawa: The Royal Canadian Regiment, 2010.
- Therrien, M. E., G. W. Ivey and S. K. McMillan. *Pre-Deployment Training and Tour Length: An Analysis of the Preferences of Recently Deployed Canadian Forces Members*, Director General Military Personnel Research and Analysis Technical Memorandum 2010-033. Ottawa: Defence Research and Development Canada, 2010.
- Thomas, Jeffery L., J. E. Wilk, L. A. Riviere, D. McGurk, C. A. Castro and C.W. Hoge. "Prevalence of Mental Health Problems and Functional Impairment Among Active Component and National Guard Soldiers 3 and 12 Months Following Combat in Iraq." Archives of General Psychiatry 67 (2010): 614–23.
- Thomas, K. and B. Barios-Choplin. Effective Leadership in TPU's: Findings from Interviews in 16 Units. Monterey: Naval Postgraduate School, 1996.
- Thompson, M. and L. Pastò. Psychometric Assessment and Refinement of the Home-coming Issues Inventory of the Human Dimensions of Operations (HDO) Project, Technical Report DCIEM 2000-068. Toronto: Defence Research and Development Canada, 2000.
- Thompson, M. M. and L. Pasto. *Psychometric Assessment and Refinement of the Family Issues Scale of the Human Dimensions of Operations (HDO) Project*, TR 2001-049. Downsview, Canada: Defence and Civil Institute of Environmental Medicine, 2001.
- Thompson, M. M. and M. A. M. Gignac. "The Experience of Canadian Forces Augmentees." in *The Human in Command: Peace Support Operations* edited by P. Essens, A. Vogelaar, E. Tanercan and D. Winslow, 235–63. Amsterdam: Mets and Schilt/KMA, 2002.

- Thompson, M. M. and Donald R. McCreary. "Enhancing Mental Readiness in Military Personnel." in *Military Life: The Psychology of Serving in Peace and Combat, Vol. 2, Operational Demands and Adjustment* edited by T. W. Britt, A. Adler and C. A. Castro, 54–79. New York: Praeger, 2006.
- Tobler, N. S. "Meta-Analysis of 143 Adolescent Drug Prevention Programs: Quantitative Outcome Results of Program Participants Compared to a Control or Comparison Group." *Journal of Drug Issues* 16, no. 4 (1986): 537–67.
- Tomlinson, E. C., B. R. Dineen and R. J. Lewicki. "The Road to Reconciliation: Antecedents of Victim Willingness to Reconcile Following a Broken Promise." *Journal of Management* 30 (2004): 165–87.
- Tugade, Michelle M. and Barbara L. Fredrickson. "Resilient Individuals Use Positive Emotions to Bounce Back from Negative Emotional Experiences." *Journal of Personality and Social Psychology* 86 (2004): 320–33.
- Tyler, T. R. and R. M. Kramer. "Whither Trust?" in *Trust in Organizations:* Frontiers of Theory and Research edited by R. M. Kramer and T. R. Tyler, 1–15. Thousand Oaks: Sage, 1996.
- Udwin, O., S. Boyle, W. Yule, D. Bolton, and D. O'Ryan. "Risk Factors for Long-Term Psychological Effects of a Disaster Experienced in Adolescence: Predictors of Post-Traumatic Stress Disorder." *Journal of Child Psychology & Psychiatry & Allied Disciplines* 41 (2000): 969–79.
- Ulmer, W. F. "Military Leadership into the 21st Century." in *Military Leadership: In Pursuit of Excellence*, edited by W. E. Rosenback and R. L. Taylor. Boulder, CO: Westview Press, 2001.
- United States Department of Defense Sexual Assault Prevention and Response Office. "Our Strength is for Defending: Readiness = Respect," 2009 Campaign Materials. http://www.sapr.mil/index.php/saam/2009-materials.
- University of New South Wales' Clinical Research Unit for Anxiety and Depression. Department of Human Services Centre for Population Studies in Epidemiology, 2002.
- Ursano, R. J., R. Wheatley, W. Sledge, A. Rahe, and E. Carlson. "Coping and Recovery Styles in the Vietnam Era Prisoner of War." *Journal of Nervous and Mental Disease* 175 (1986): 273–5.

- Uzzi, B. "Social Structure and Competition in Interfirm Networks: The Paradox of Embeddedness." *Administrative Science Quarterly* 42 (1997): 35–67.
- Van Breda, A. D. "Experience of Routine Husband Absences in the South African Navy." *Social Work / Maatskaplike Werk* 33 (1997): 154–64.
- Van Breda, A. D. Resilience Theory: A Literature Review. Pretoria, South Africa: South African Military Health Service, Military Psychological Institute, Social Work Research & Development, 2001.
- Van den Bos, K., P. A. M. Van Lange, E. A. Lind, L. A. Venhoeven, D. A. Beudeker, F. M. Cramwinckel, L. Smulders, and J. Van der Laan. "On the Benign Qualities of Behavioral Disinhibition: Because of the Prosocial Nature of People, Behavioral Disinhibition can Weaken Pleasure with Getting More Than You Deserve." Journal of Personality and Social Psychology 101 (2011): 791–811.
- Van der Kloet, I., J. L. Soeters, and K. Sanders. "Development of Trust among Soldiers on a Deployment Mission." *Small Wars and Insurgencies* 15 (2004): 131–57.
- Van Katwyk, P. T., S. Fox, P. E. Spector and E. K. Kelloway. "Using the Job-Related Affective Well-Being Scale (JAWS) to Investigate Affective Responses to Work Stressors." Journal of Occupational Health Psychology 5 (2000): 219–30.
- Van Vranken, E. W., L. K. Jellen, K. M. H. Knudson, D. H. Marlowe, and M. W. Segal. *The Impact of Deployment Separation on Army Families*. Washington: Department of Military Psychiatry, Walter Reed Army Institute of Research, 1984.
- Wagnild, Gail M. and Heather M. Young. "Development and Psychometric Validation of the Resilience Scale." *Journal of Nursing Measures* 1 (1993): 165–78.
- Wald, Jaye S., S. Taylor, G. J. G. Asmundson, K. L. Jang, and J. Stapleton. *Literature Review of Concepts: Psychological Resiliency*, Contract Report 2006-073. Toronto: Defence Research and Development Canada, 2006.
- Walker-Smith, G. and A. Feggetter. "The Right to Survive A Human Right?" *Journal of Defence Science* 6, no. 3 (2001): 46–7.

- Walton, R. E. and R. B. McKersie. *A Behavioural Theory of Labor Negotiations: An Analysis of a Social Interaction System*. New York: McGraw–Hill, 1965.
- Walzer, M. "Two Kinds of Military Responsibility." In *The Parameters of Military Ethics* edited by L.J. Matthews and D.E. Brown, 67–72. Toronto: Pergamon, 1989.
- Ward, J. "Convicted Soldier Claims He Is a Scapegoat." *Times Colonist*, May 8, 1997.
- Ward, W. "Psychiatric Morbidity in Australian Veterans of the United Nations Peacekeeping Force in Somalia." Australian & New Zealand Journal of Psychiatry 31 (1997): 184–93.
- Warner, C. H., G. N. Appenzeller, A. Mobbs, J. R. Parker, C. M. Warner, T. Grieger, and C. W. Hoge. "Effectiveness of Battlefield-Ethics Training During Combat Deployment: A Programme Assessment." *Lancet* 378, no. 9794 (2011): 915–24.
- Watson, Alexander. Enduring the Great War: Combat, Morale and the Collapse in the German and British Armies, 1914–1918. Cambridge: Cambridge University Press, 2008.
- Watson, R. I. "Investigation into Deindividuation using a Cross-Cultural Survey Technique." *Journal of Personality and Social Psychology* 25 (1973): 342–5.
- Weathers, F. W., B. Litz, D. Herman, J. Huska and T. Keane. "The PTSD Checklist (PCL): Reliability, Validity and Diagnostic Utility." Paper presented at the Ninth Annual Conference of the International Society for Traumatic Stress Studies, San Antonio, 1993.
- Weins, T. W. and P. Boss. "Maintaining Family Resiliency Before, During and After Military Separation." in *Israel Defense Forces Military Life: The Psychology of Serving in Peace and Combat* edited by C. A. Castro, A. B. Adler and C. A. Britt, 13–38. Bridgeport: Praeger Security International, 2006.
- Wenek, K. W. J. Defining Effective Leadership in the Canadian Forces. Kingston, ON: Canadian Forces Leadership Institute, 2003.

- Wenek, K. W. J. Looking Ahead: Contexts of Canadian Forces Leadership Today and Tomorrow. Kingston, ON: Canadian Forces Leadership Institute, 2002.
- Wenek, K. W. J. Looking Back: Canadian Forces Leadership Problems and Challenges. Kingston, ON: Canadian Forces Leadership Institute, 2002.
- Wenker, K. H. "Morality and Military Obedience." *Air University Review* 32, no. 5 (1982): 76–83.
- Wexler, H. K. and E. McGrath. "Family Member Stress Reactions to Military Involvement Separation." *Psychotherapy* 28 (1991): 515–9.
- Wheaton, B. "The Nature of Stressors." in *A Handbook for the Study of Mental Health: Social Contexts, Theories, and Systems* edited by Allan V. Horwitz and Teresa L. Scheid, 176–97. New York: Cambridge U. P., 1999.
- Wheeler, M. O. "Loyalty, Honor, and the Modern Military." in *War, Morality and the Military Profession* edited by M. M. Wakin, 171–9. Boulder: Westview, 1986.
- Whitney, C. R. "1968 the My Lai Massacre." New York Times, Feb 25, 2008.
- Wild, William. Proposal for Studying the Human Dimensions of Combat Readiness, Canadian Forces Personnel Applied Research Unit Note 5/88. Willowdale: Defence Research and Development Canada, 1988.
- Wilson J. P. and G. E. Krauss. "Predicting Post-Traumatic Stress Disorder among Vietnam Veterans." in *Post-Traumatic Stress Disorder and the War Veteran Patient* edited by W.E. Kelly, 102–47. New York: Brunner/Mazel, 1985.
- Winslow, D. "Misplaced Loyalties: Military Culture and the Breakdown of Discipline in Two Peace Operations." in *The Human in Command: Exploring the Modern Military Experience* edited by C. McCann and R. Pigeau, 293–309. New York: Kluwer Academic / Plenum, 2000.
- Winslow, D. *The Canadian Airborne Regiment in Somalia: A Socio-Cultural Inquiry*. Ottawa: Commission of Inquiry into the Deployment of Canadian Forces to Somalia, 1997.
- Winslow, D. "Misplaced Loyalties: The Role of Military Culture in the Breakdown of Discipline in Two Peace Operations." *Journal of Military and Strategic Studies* 6, no. 3 (2004): 1–18.

- Wood, S., J. Scarville, and K. S. Gravino. "Waiting Wives: Separation and Reunion among Army Wives." *Armed Forces and Society* 21 (1995): 217–32.
- Wren, D. "My Lai no Accident." Orlando Sentinel, July 30, 1989.
- Wright, K. M., L. M. Burrell, E. D. Schroeder, and J. L. Thomas. "Military Spouses: Coping with the Fear and the Reality of Service Member Injury and Death." in *Military Life: The Psychology of Serving in Peace and Combat* edited by C. A. Castro, A. B. Adler and C. A. Britt, 39–63. Bridgeport, CT: Praeger Security International, 2006.
- Yakovleva, M., R. R. Reilly, and R. Werko. "Why do We Trust? Moving Beyond Individual to Dyadic Perceptions." *Journal of Applied Psychology* 95 (2010): 79–91.
- Yerkes, S. A. and H. C. Holloway. "War and Homecomings: The Stressors of War and of Returning from War." in *Emotional Aftermath of the Gulf War* edited by R. J. Ursano and A. E. Norwood, 25–42. Washington: American Psychiatric Press, 1996.
- Yukl, G. *Leadership in Organizations*, 4th ed. Upper Saddle River: Prentice Hall, 1998.
- Zaheer, A., B. McEvily and V. Perrone. "Does Trust Matter? Exploring the Effects of Interorganizational and Interpersonal Trust on Performance." Organization Science 9 (1998): 141–59.
- Zand, D. E. "Trust and Managerial Problem Solving." *Administrative Science Quarterly* 17 (1972): 229–39.
- Zimbardo, P. G. "The Human Choice: Individuation, Reason, and Order Versus Deindividuation, Impulse, and Chaos." in *1969 Nebraska Symposium on Motivation*, edited by W. J. Arnold and D. Levine, 237–307. Lincoln: University of Nebraska Press, 1969.
- Zimbardo, P. G. *The Lucifer Effect: Understanding How Good People Turn Evil.* New York: Random House, 2007.

THE EDITORS

Gary Ivey

Major Gary Ivey has served in the CAF for 20 years in the Field Artillery and Personnel Selection branches, gaining operational experience in Bosnia-Herzegovina and Afghanistan. He has a MSc degree in industrial-organizational psychology from the University of Calgary and he is currently pursuing a PhD in applied psychology at Carleton University. His main research areas include leadership, morale and combat psychology, and he has participated in international panels on survival psychology and special forces selection. He was awarded the Canadian Army Commander's Commendation for his research support to operational readiness. He is currently a member of the Operational Effectiveness and Leadership Team at Director General Military Personnel Research and Analysis.

Kerry Sudom

Dr. Kerry Sudom joined the Department of National Defence in 2005 as a Defence Scientist and is currently the Team Leader of the Psychosocial Health Dynamics Team at Director General Military Personnel Research and Analysis. Her main areas of research include the health, quality of life, and economic outcomes of transition from military to civilian life, health and fitness trends of military personnel, and resilience and psychological wellbeing. She received a PhD in psychology from Carleton University in 2007.

Waylon H. Dean

Mr. Waylon H. Dean has been engaged as a science editor at Director General Military Personnel Research and Analysis since 2011. He is currently a doctoral candidate in philosophy at the University of Ottawa. His research interests include scientific method, logic, critical thinking, military ethics, political philosophy, and ancient philosophy. He also specializes in science editing and technical writing.

Maxime Tremblay

Dr. Maxime Tremblay has been a Defence Scientist at Director General Military Personnel Research and Analysis since 2007. He completed his PhD in experimental psychology at the University of Ottawa in 2009. In 2010, he was deployed to Afghanistan as technical assistant to the J5 Operational Analyst. His main areas of research include unit climate and culture and their relations to operational effectiveness, as well as the influence

EDITORS

of leadership on the operational preparedness and overall performance of military units. He is currently assigned to the Operational Effectiveness and Leadership Team.

THE AUTHORS

Barbara D. Adams

Dr. Barbara Adams has supported defence and security research as a consultant with Humansystems Incorporated for more than 10 years. She has a PhD in social psychology from the University of Waterloo. She has conducted research in a wide range of psychosocial areas, including social identity, team collaboration, psychological influence, individual readiness, trust, and ethical decision making.

Ann-Renée Blais

Dr. Ann-Renée Blais is a research psychologist for Defence Research and Development Canada in Toronto. She has a PhD in quantitative psychology from Ohio State University (2001), and she completed a post-doctoral internship in experimental economics in 2001-2002. Her research now focuses on modeling individual readiness for military operational effectiveness. She also has a strong interest in survey design, applied statistics, and psychometrics.

Sébastien Blanc

Lieutenant-Colonel Sébastien Blanc joined the CAF in 1993. Following four years as an Army Logistics Officer, he joined the Personnel Selection Branch in 1997. He has since served in a number of staff, academic, and research positions. He gained operational experience in Eritrea, Africa, where he was employed as Operational Psychology Advisor to the Task Force Commander. He has a PhD in industrial-organizational psychology from Saint Mary's University. He has conducted research in the areas of naval officer selection, operational stress, battlefield ethics, and performance management. He is currently the Operational Effectiveness and Leadership Team Leader at Director General Military Personnel Research and Analysis.

Peter Bradley

Dr. Peter Bradley has been associated with the Canadian military for more than 40 years. He joined the CAF in 1971 and served in the Royal Canadian Regiment for 12 years, and then transferred to the Personnel Selection Branch for another 21 years before retiring in 2004 as a Lieutenant-Colonel. He presently teaches psychology, leadership, and ethics at the Royal Military College and remains an active researcher in the areas of ethical decision-making and mental health in the military.

Bill Nicholas Chop

Master Warrant Officer Bill Nicholas Chop joined the CAF in September 1988. During his 24 year career, he has received three Command Commendations and has been involved in several operational tours. In December 2009, he took over as Training Sergeant Major at the Canadian Forces School of Military Intelligence. In July 2011 he became the Lessons Learned Coordinator with the Canadian Forces Leadership Institute at the Canadian Defence Academy.

Julie Coulthard

Dr. Julie Coulthard is a Defence Scientist with the Director General Military Personnel Research and Analysis. She began her career in defence in 2007 and is currently assigned to the Conditions of Service team. She received her MA degree in 2003 from Queen's University and her PhD in sociology from McGill University in 2010. Her main areas of research currently include the impact of military life on families, harassment in the CAF, and the care of ill and injured service members, with a particular focus on their reintegration into their pre-accident/illness military duties or their transition from military to civilian life.

Karen D. Davis

Dr. Karen D. Davis is a Defence Scientist with Director General Military personnel Research and Analysis and assigned to the Canadian Forces Leadership Institute. Recent activities include being a contributing writer to Leadership in the Canadian Forces: Leading the Institution (2007); contributing writer/editor to Women and Leadership in the Canadian Forces: Persective and Experience (2007), and Cultural Intelligence and Leadership: An Introduction for Canadian Leaders (2009); contributing writer/co-editor to Transforming Traditions: Women, Leadership & the Canadian Navy, 1942-2010 (2010); and her PhD dissertation Negotiating Gender in the Canadian Forces, 1970-1999 (2013). She is currently engaged in research regarding leadership, culture and military operations in the Arctic.

Deniz Fikretoglu

Dr. Deniz Fikretoglu is a clinical psychologist with expertise in military mental health. She works for Defence Research and Development Canada in Toronto, where her research focuses on barriers to mental health service use in active military and veteran populations. Her research program has been funded by Veterans Affairs Canada, the Department of National Defence, and the Canadian Institutes of Health Research. Her publications have

appeared in the Canadian Journal of Psychiatry, the Journal of Traumatic Stress and Medical Care.

Kevin Kelloway

Dr. E. Kevin Kelloway is the Canada Research Chair in Occupational Health Psychology at Saint Mary's University, where he also holds an appointment as Professor of Psychology and Management and serves as the Director of the CN Centre for Occupational Health and Safety. He is a Fellow of the Society for Industrial and Organizational Psychology, the Association for Psychological Science, and the Canadian Psychological Association. His research interests include occupational health psychology, leadership, the development and measurement of work attitudes/values, unionization, and the management of knowledge workers. He is associate editor at *Work & Stress*, a section editor for *Stress & Health*, and he serves on several editorial boards. He also maintains an active consulting practice, serving private and public sector organizations on issues related to leadership, occupational health psychology and human resource management.

Gary Ivey

Major Gary Ivey has served in the CAF for 20 years in the Field Artillery and Personnel Selection branches, gaining operational experience in Bosnia-Herzegovina and Afghanistan. He has a MSc degree in industrial-organizational psychology from the University of Calgary and he is currently pursuing a PhD in applied psychology at Carleton University. His main research areas include leadership, morale and combat psychology, and he has participated in international panels on survival psychology and special forces selection. He was awarded the Canadian Army Commander's Commendation for his research support to operational readiness. He is currently a member of the Operational Effectiveness and Leadership Team at Director General Military Personnel Research and Analysis.

Donald McCreary

Dr. Donald R. McCreary is a Defence Scientist, research psychologist, and a member of the Resilience Group at Defence Research and Development Canada in Toronto, as well as an Adjunct Professor of Psychology at Carleton University and Brock University. His general research interests lie in the areas of stress and coping, psychological resilience and occupational health psychology. He was awarded Fellowship of the American Psychological Association in 2004 in recognition of his career contributions to psychological research.

Deanna L. Messervey

Dr. Deanna L. Messervey is a Defence Scientist for the Director Research Operational and Organizational Dynamics at the Director General Military Personnel Research and Analysis. She completed her PhD in social psychology at Queen's University. Her research interests include battlefield ethics, ethical decision-making and culture. She is currently the primary researcher for the Defence Ethics Survey, which is used to assess ethical climate and ethical decision making across the Department of National Defence.

Wayne Niven

Lieutenant-Colonel Wayne Niven has served in the Princess Patricia's Canadian Light Infantry for 20 years, gaining operational experience in Bosnia-Herzegovina, Afghanistan, and across Canada. He was decorated with the Meritorious Service Medal for combat leadership in Afghanistan in 2009-2010. He has a Master of Defence Studies degree from the Royal Military College. Lieutenant-Colonel Niven currently serves as the G3 of 1 Canadian Mechanized Brigade Group in Edmonton, Alberta.

Alan Okros

Dr. Alan Okros is a professor in the Department of Defence Studies, and he is the Deputy Director Academics at the Canadian Forces College, Toronto. From 2004 to 2008, he was an associate professor in the Department of Military Psychology and Leadership at the Royal Military College of Canada. He retired from the CAF in 2004 with 33 years service, having been responsible for four academically focused organizations, including the Canadian Forces Leadership Institute, where he led a multi-disciplinary team that produced CAF doctrine on leadership and professionalism including *Duty with Honour: The Profession of Arms in Canada* and *Leadership in the Canadian Forces: Conceptual Foundations*. In addition to lecturing in a range of CAF professional development courses, he provides invited presentations internationally and is engaged in a number of research projects centred on leadership in the public domain.

Jennifer M. Peach

Dr. Jennifer M. Peach recently joined the Department of National Defence as a Defence Scientist, working in the Organizational Behaviour team for Director General Military Personnel Research and Analysis. Her areas of research include attitudes, automatic thinking, group influences on behaviour, and she currently administers the CAF's Your-Say Survey. She received

a PhD in social psychology from the University of Waterloo in 2010 and conducted a post-doctoral fellowship at Defence Research and Development Canada in Toronto in 2011.

Kerry Sudom

Dr. Kerry Sudom joined the Department of National Defence in 2005 as a Defence Scientist and is currently the Team Leader of the Psychosocial Health Dynamics Team at Director General Military Personnel Research and Analysis. Her main areas of research include the health, quality of life, and economic outcomes of transition from military to civilian life, health and fitness trends of military personnel, and resilience and psychological wellbeing. She received a PhD in psychology from Carleton University in 2007.

Cindy Suurd Ralph

Major Cindy Suurd Ralph has served in the CAF for 21 years in the Logistics and Personnel Selection branches. She has a MSc degree in industrial-organizational psychology from Saint Mary's University, and she has conducted research in the areas of survival psychology, organizational justice, morale, and assessment and selection. She has chaired an international panel on survival psychology. She is currently posted at the Canadian Defence Academy in Kingston, Ontario.

Megan M. Thompson

Dr. Megan M. Thompson obtained her doctorate in social psychology from the University of Waterloo. She began her Department of National Defence career as a National Sciences and Engineering Research Council Visiting Fellow, later becoming a Defence Scientist at Defence Research and Development Canada in Toronto, where she led the Stress and Coping Group's research program in the area of psychological adaptation and resiliency in deployments. She also co-developed a measure of post-deployment reintegration. She has served as Section Scientific Advisor in the Collaborative Learning and Performance Section, where her research areas involved trust in military teams and moral and ethical decision making in military operations. She is currently a member of the Organizational Behaviour Group, where her research focuses on trust and collaboration within diverse teams in the comprehensive approach to operations. Author of 56 scientific publications, she has served on a number of international panels and has been a keynote speaker at NATO research symposiums. She is on the editorial board of the American Psychological Association journal, Military Psychology.

LIST OF ABBREVIATIONS

ADF - Australian Defence Force

AOR – Area of Responsibility

APDRS - Army Post-Deployment Reintegration Scale

CAC - Conduct After Capture

CAF – Canadian Armed Forces

CANEX – Canadian Forces Exchange System

CHR – Canadian Human Rights Act

CIMIC – civilian–military co-operation (teams)

COIN – counterinsurgency

CQ - cultural intelligence

DGMPRA - Director General Military Personnel Research and Analysis

DRDC - Defence Research and Development Canada

HDO – Human Dimensions of Operations (Project)

IED – improvised explosive device

IO – information operation

K-10 – Kessler Psychological Distress Scale

MHCM - Mental Health Continuum Model

NATO - North Atlantic Treaty Organization

NCM – non-commissioned member

NCO – non-commissioned officer

OEL – Operational Effectiveness and Leadership Team

OPRED – operational readiness

OSI – operational stress injury

LIST OF ABBREVIATIONS

PERSTEMPO – personnel tempo

PPCLI – Princess Patricia's Canadian Light Infantry

PReVAiL - Preventing Violence Across the Lifespan Group

PSO – Personnel Selection Officer

PSYOP – psychological operation

PT – psychological toolbox

PTSD – post-traumatic stress disorder

PW – prisoner of war

QR&Os – Queen's Regulations and Orders

R2MR – Road to Mental Readiness

RCR - Royal Canadian Regiment

RNNA-C – Royal Norwegian Naval Academy Cadets

SA – situational awareness

SIT – stress inoculation training

SMART - Specific, Measurable, Attainable, Relevant, Time-bound goals

SMS – stress in military service

TLD – Third Location Decompression

UMP – Unit Morale Profile

UN - United Nations

UNAMIR - United Nations Assistance Mission in Rwanda

VC - Viet Cong

WGonST – Working Group on Survival Training

WO – warrant officer

INDEX

absenteeism 28

Abu Ghraib 87

Afghanistan 8, 16, **24** notes, 26, 34, 36, 39, 42, **49** notes, **51-53** notes, 64, 65, **69** notes, 75, 83, 88, **96** notes, 117, 145, 157, 161, 163, 164, **170** notes, 174, 175, 178, **184** notes, 190, 202, 273, 274

alcohol and drug abuse, See substance abuse 27

anger 10, 29, 55, 64, 83, 87, 88, 93-95, **98** notes, **99** notes, 191, 192, 194, 195, 197, 198

anxiety 34, 35, 42, **50** notes, 55, **68** notes, **69** notes, 73, 75, 77, **80** notes, 179, 191, 192, 194, 195, 197-199

authority vi, 90, 91, **96** notes, **100** notes, **101** notes, 103, 104, 109, 111, 118-120, 124, **127** notes, 137, 143, 159, 164, 209, 212

benevolence 134, 137, 138, 141, 143, 144, **149** notes, 212

Big Five personality traits 63

Bosnia 26, 31, 32, 38, 40, **48** notes, **49** notes, **53** notes, 71, 122

buffers 29, 30, 31, 42, 218

Canadian Forces Health Services viii, 64, 65

Canadian Armed Forces Leadership Doctrine 5, 17, 136, 137, 209-211, 216, **222** notes

Canadian Forces Recruit Health Questionnaire 63

captivity 71-78, 81 notes, 82 notes

casualty support 5

category-based trust 140

Chief of Military Personnel iii, iv, 5, 21 notes, 44

civil-military cooperation teams (CIMIC) 160

cohesion 1-9, 12, 13, **19** notes, 29, 30, 31, 37, **45** notes, **49** notes, **59**, 66, 108, 121, 122, **128** notes, **129** notes, 133, 136, **151** notes, **153** notes, 178

counterinsurgency operations (COIN) iii, 131, 166, 167, **169** notes, **170** notes, 190

combat readiness 13, **19** notes, **23** notes 136, **151** notes, 152 notes, 178

competence 118, 119, 123, 124, 134, 135, 137, 138, 141-144, **149** notes, **169** notes, 212

conduct after capture 13, 23 notes, 71, 79 notes

confidence 2, 4, 7, 8, 12-16, **19** notes, 31, **45** notes, **49** notes, **51** notes, 58, 75, 77, 122, 124, **129** notes, 131-133, 137, 141, 146, 147, **153** notes, **187** notes, 210, 214-216, 219

conscientiousness 63, 137, 151 notes

coping 13, 29-31, 37, 40, **47** notes, **48** notes, **50**-**52** notes, 59, 63, 65, 66, 74, 75, 77, **80** notes, **81** notes, 86, 93, 137, **151** notes, **185** notes, 199, 200, **203** notes, **204** notes

defence doctrine 3, 20 notes, 21 notes

defensive monitoring 135

Department of National Defence v, vii, viii, **20** notes, **22** notes, **23** notes, **43**, 72, 79, **96** notes, **97** notes, **99** notes, **127** notes, **128** notes, **152** notes **169** notes

deployment vi, 14, 16, 25, 26, 30, 32, 36-41, **46-48** notes, **50** notes, **53** notes, 66, 67, 94, **97** notes, 106, 108, 141, 146, **148** notes, 164, 171-173, 181-183, **184-186** notes, **189** notes, 190-202, **203-206** notes

deployment cycle iii, **23** notes, 32-35, 37, 45, 172, 189, 191, 196, 200, **205** notes, **206** notes effects on children 38

pre-deployment 33, **49** notes, 65, 141, 191, 194, 195, 197, 198, 200, 218, 219

post-deployment vi, 13, 23, 37-39, 41, 44, **52** notes, 65, 66, **69** notes, 141, 171-183, **186** notes, **187** notes, 191, 192, 194, 196, 199-201, **206** notes, **229** notes

depression 28, 29, 34, 42, **50** notes, 55, **68** notes, 77, 84, 179, 191, 192, 194, 196, 200, **205** notes, **206** notes

INDEX

Director General Personnel and Family Support Services viii, 5

discipline 2-4, 7, 8, 14, 15, **100** notes, 104, 108, **126** notes, **149** notes, 158, 159, 167, 214, 216

empathy 60, 90

Eritrea 26

ethics iii, vi, 13, 14, 16, **23** notes, **45** notes, 83, 84, 92, 93, 95, **96-101** notes, 112, **127** notes, **128** notes

failed states 25

family support vii, viii, 5

First World War 104, 110, 117, 161

force protection 2, 216

Gulf War 25, 46 notes, 74, 184 notes

Haiti 26

health viii, 3, 11, 26-28, 30, 36, 38-41, **45-48** notes, **51-53** notes, 55, 56, 59, 61, 63-66, **68** notes, **79** notes, **80** notes, **82** notes, **96** notes, **98** notes, 142, 160, **184-187** notes, 189, 191, 200, **203** notes, **204** notes

humanitarian assistance iii, 25

humanitarian missions 190

integrity 105, 108, 123, 124, 131, 134, 135, 137, 138, 141-144, 149, 212

intervention programs 60, 89

Job Demands-Resource Theory 28

job satisfaction 6, 19 notes, 137, 178, 189

job-related affect 178, 179, 187 notes

Kessler Psychological Distress Scale 34

Leader Effectiveness Framework 215, 216

leadership iii, v, vi, viii, 2, 4, 5, 7, 8, 11-12, 14, 16, 17, **19** notes, **21** notes, **23** notes, **24** notes, 29-31, 37, **45** notes, **49** notes, **51** notes, **54** notes,

65, 94, **100** notes, 104, 106, 108, 117, 118, 121, 123-125, **126** notes, **128** notes, **129** notes, 136, 137, 141, 145, 146, **148** notes, **149** notes, **151-153** notes, 157, 158, 166, **169** notes, **170** notes, 178-180, 190, 201, 209-221, **222** notes, **223** notes

loss of productivity 28

Mental Health Continuum Model 65

Military Commitment Scale 179

military families 33, **50** notes, 189, 190-192, 194, **204** notes, **205** notes, **207** notes

mirror-imaging 161, 162

mission objectives 8, 9, 12, 17

morale v, 1-18, **19-24** notes, 30, 31, **45** notes, **48** notes, **49** notes, **51** notes, 59, 66, 122, **129** notes, 136, **151** notes, **153** notes, 178, 218, 219

motivation viii, 1-3, 6, 7, 9

NATO 3, 12, 20 notes, 22-24 notes, 49 notes, 145

non-commissioned officer 6, 106, 115, 117

obedience vi, 83, 90, 91, 95, **96** notes, **100** notes, **101** notes, 103-105, 107-111, 114, 118, 121-125, **126** notes, **127** notes, **129** notes, 212, 218, 220

Operation ATHENA 32-34, 36, 49 notes, 128 notes

Operation ATTENTION 24

Operation Enduring Freedom 36, 41, **51** notes, **53** notes

Operation PALLADIUM 32, 33, 49 notes

operational effectiveness v, vii, 11, 12, 28, 29, 31, 71, 133, 172, 190, 218, 219

Operational Effectiveness and Leadership Team (OEL) viii, 11-16

Operational Effectiveness and Stress Model 29

operational readiness 10, 16, 66, 72 Queen's Regulations and Orders 104, 127 notes operational stress v, vi, 13, 23 notes, 25-27, 29, readiness 1, 5, 10, 13, 14, 16, 18, 66, 71, 72, 32, 33, 35, 40, 42, 44, 46 notes, 66, 84 136, 178, 202 Operational Stress Injury Support 38 realism in training 76 organizational effectiveness v, 11, 108 research psychology 11 peacekeeping iii, 22, 25-29, 33, 34, 37, 38, resilience vi, 42, 53 notes, 56-67, 69 notes, 73, 40, 42, **45-49** notes, **51-53** notes, 113, **184** notes, 78, **80** notes, 212, 218, **222** notes 185 notes, 190, 202, 204 retention 44, 93, 178 peacekeeping stress 25, 27, 31, 32, **45** notes, **46** notes, 48 notes, 50 notes reunion and reintegration 190, 191 peacemaking 25 risk 25, 35, 41, 47 notes, 48 notes, 50 notes, 53 notes, 56, 59, 72, 78, 85, 88, 92-94, 113, 114, Peloponnesian War 160, 169 notes 131-133, 135, 141, 146, **149** notes, 162, 181, Personnel Selection Officers 22 notes, 64, 69 notes Road to Mental Readiness 56, 88, 99 notes PERSTEMPO 144-146, 203 notes Second World War (World War II) 25, 96 pessimism 16 notes, 115, 122, 128 notes, 151 notes, 162 position power 118, 119, 209, 212, 213 situational awareness 157, 162 post-deployment reintegration vi, 13, 23 notes, sniper 27, 138 39, 52 notes, 65, 66, 69 notes, 171-183, 186 notes, 187 notes, 206 notes social power 118, 126 notes, 128 notes Post-deployment Reintegration Scale social support networks 12 (PDRS) 174, 180, 182, 187 notes post-traumatic stress disorder (PTSD) 18, 23 Stress in Military Service 32, 42, 49 notes, 50 notes, 26, 27, 29, 33, 39, 40, 43, **46-48** notes, **53** notes, 179 notes, 55, 66, 84, 85, 99 notes, 171, 179, 183, 184 notes, 185 notes, 187 notes stress inoculation 64, **69** notes, 71-75, 78, **79** notes, 81 notes, 86, 96 notes, 98 notes, 218 predictability 71, 78, 134, 135, 137, 143, 212 stressors v, 14, 26-33, 36, 40, 46 notes, 48 notes, profession of arms 131, 139, 146, 147, 216, 221 57, 58, 61, 64, 67, 73-76, 78, **82** notes, **153** notes, 179, 184-186 notes, 191, 194, 197-199, psychology 11, 12, 18, 42, 56, 61, 62, 66, 85, 201, 204-206 notes, 218, 219, 222 notes 91, 95, 103 psychological constructs 1, 2, 10-12, 15 substance abuse 46 notes, 55 psychological distress 16, 31, 34, 35, 41, 50 suicide 55 notes, 62, 66, 85, 179 team outcomes 135, 140 psychological operations (PSYOPs) 3, 4 terrorism 84, 114

psychopathology 12

INDEX

```
third location decompression (TLD) 39, 41,
52 notes, 64, 65, 69 notes, 219
torture 77, 79 notes, 81 notes, 88, 163
trust iii, vi, 8, 13, 14, 16, 23 notes, 48 notes,
105, 120, 122-124, 128 notes, 131-147, 148-
155 notes, 161, 210, 212, 215, 216, 218, 219
  trust building 137, 144, 146, 153 notes
  trust violations 142-144, 218
turnover (turnover intentions) 39-41, 43, 52
notes, 139, 144, 189
UN 116
uncertainty 132, 142, 198, 222 notes
unethical conduct. See ethics 87, 89, 93
Unit Morale Profile (UMP) 12-17, 22 notes,
23 notes
unlawful order 92
unlimited liability, doctrine of 25
violations 132, 142-144, 218
vulnerability 123, 132, 142, 143
warrior spirit 2, 216
welfare 3, 5, 6, 131, 135
well-being iii, v, 1, 2, 4-7, 9, 10, 12-14, 16, 25,
27, 28, 30, 31, 40-43, 50 notes, 56, 61, 62, 65-
67, 76, 80 notes, 124, 137, 146, 147, 178, 189,
190, 198, 199, 202, 216, 218, 219, 221
World War II (Second World War) 25, 96
notes, 115, 122, 128 notes, 151 notes, 162
work engagement 1, 7
Yugoslavia 13, 25, 169 notes
```

It has long been recognized that a military's effectiveness depends more on the people it deploys than on any other factor. The Human Dimensions of Operations: A Personnel Research *Perspective* brings together leading defence scientists to discuss the latest research into the human side of military operations, including morale, ethics, leadership, trust in teams, operational stress, psychological resilience, obedience to authority, and the importance of the well-being of military families to the effectiveness of military members. This book provides academic researchers, leaders, and military members across all ranks with an accessible and comprehensive understanding of how the human dimensions shape operational effectiveness in the Canadian Armed Forces.

