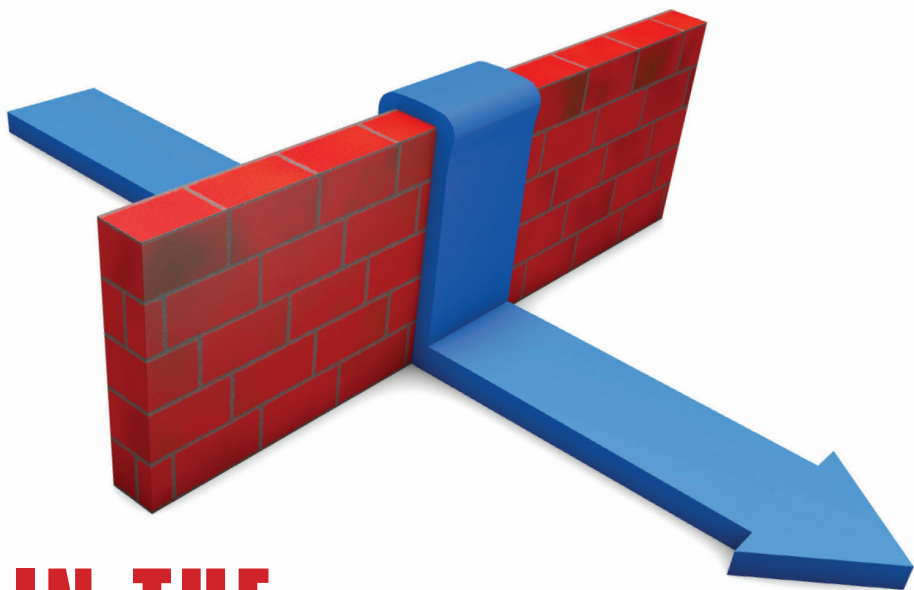


ADAPTIVE LEADERSHIP



IN THE MILITARY CONTEXT

INTERNATIONAL PERSPECTIVES



Edited by
Lieutenant-Colonel Douglas Lindsay, PhD &
Commander Dave Woycheshin, PhD

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EDITED BY

**LIEUTENANT-COLONEL DOUGLAS LINDSAY, PhD &
COMMANDER DAVE WOYCHESHIN, PhD**



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Adaptive Leadership in the Military Context: International Perspectives is the ninth publication by the International Military Leadership Association. The dedication of this group to producing an annual publication on military leadership is remarkable. The contributors to this volume should be justifiably proud of achieving a high standard under very tight time constraints. This volume provides greater insight into the many factors that contribute to adaptive leadership, in Western and non-Western contexts.

It is important to recognize the ongoing support of the Canadian Defence Academy and the Canadian Defence Academy Press for this series of publications. In particular, our gratitude and thanks go to Melanie Denis of the Canadian Defence Academy for her expertise and for her willingness to work under the time constraints that are required to meet the International Military Leadership Association schedule. We also express our gratitude to the 17 Wing Publishing Office in Winnipeg, Manitoba, for consistently producing a high-quality, professional product.

TABLE OF CONTENTS

FOREWORD	iii
CHAPTER 1	UNITED STATES OF AMERICA	
	Adaptability in Western and Non-Western Leadership Research	
	<i>Jerry Guo and Mie Augier, PhD</i>	1
CHAPTER 2	NETHERLANDS	
	Adaptive Military Leadership Beyond Control	
	<i>Ruben E. Geerts and Leonie Houtman</i>	19
CHAPTER 3	UNITED STATES OF AMERICA	
	Isn't Adaptive Leadership Just Good Leadership?	
	<i>R. Jeffrey Jackson, PhD, and Lieutenant-Colonel Douglas R. Lindsay, PhD</i>	33
CHAPTER 4	SWITZERLAND	
	Leadership Responsibility and Disobedience	
	<i>Florian Demont, PhD</i>	47
CHAPTER 5	CANADA	
	An Evidence-Based Approach to Understanding How Leaders Can Foster Ethical Behaviour	
	<i>Deanna Messervey, PhD, and Erinn Squires</i>	61
CHAPTER 6	SINGAPORE	
	Developing Adaptive Leaders through Critical Thinking	
	<i>Richard Runyon, DM, Colonel Fred Tan Wel Shi, and Jivarani Govindarajoo</i>	81

TABLE OF CONTENTS

CHAPTER 7	CANADA	
	Leading in Uncertainty, Unpredictability and Volatility	
	<i>Bill Bentley, PhD, and</i>	
	<i>Lieutenant-Colonel Dave Buchanan</i>	101
CHAPTER 8	NEW ZEALAND	
	The New Zealand Defence Force:	
	An Adaptable Organization Requires Adaptable Leaders	
	<i>Commander Mark Meehan and</i>	
	<i>Flight Lieutenant Delwyn Neill</i>	111
CHAPTER 9	SOUTH AFRICA	
	Adaptable Leadership for the South African Army	
	<i>Colonel Piet Bester, D Phil, and</i>	
	<i>Major Anita du Plessis</i>	127
CHAPTER 10	INDONESIA	
	Adaptive Leadership Doctrine for the	
	Indonesian Army Transformation	
	<i>Colonel Eri R. Hidayat, PhD, and</i>	
	<i>Lieutenant Colonel Ardisutopo E. Tjahjono</i>	157
CONTRIBUTORS		171
GLOSSARY		179
INDEX		181

FOREWORD

I am pleased to introduce *Adaptive Leadership in the Military Context: International Perspectives*, the ninth volume of the International Military Leadership Association (IMLA) series published by the Canadian Defence Academy Press. Established in 2005, the IMLA has provided a forum for military leadership researchers, academics and members of military leadership institutes to collaborate on a wide variety of military leadership projects. This publication is one of the tangible outcomes of this fruitful and vital collaboration.

Adaptive leadership is a topic that is crucial in today's military environment. It is clear that the role of the military has changed since the end of the Cold War and the emergence of current terrorist threats. Adaptive leadership is not a new concept, but the demands on today's military highlight the necessity for military leaders to have this adaptive ability to be effective. The challenge for military organizations is to ensure that military leaders receive the training and experience necessary to learn and develop their adaptive leadership abilities.

Adaptive Leadership in the Military Context: International Perspectives covers adaptive leadership from the level of the individual leader to the doctrinal level. The complexity of adaptive leadership is evident from the competencies necessary to be an effective adaptive leader. Topics discussed in this volume include systems thinking, critical thinking and ethical decision making. At the doctrinal level, it is interesting to note that Canada, Indonesia, New Zealand, and South Africa are all in the process of renewing their leadership doctrine to reflect the changes required in today's military leadership. Adaptive leadership is a key concept in all of these nation's leadership development programs.

I wholeheartedly support the continued publication of the IMLA series by the Canadian Defence Academy Press. I commend the efforts of the authors, editors and publishing staff in producing this important volume. IMLA continues to demonstrate its relevance to furthering the understanding of the many facets of military leadership.

J.G.E. Tremblay
Major-General
Commander
Canadian Defence Academy

CHAPTER 1

ADAPTABILITY IN WESTERN AND NON-WESTERN LEADERSHIP RESEARCH

Jerry Guo

*Mie Augier, PhD**

INTRODUCTION

Leadership is essential, but it is an ambiguous concept. It is key to most (if not all) organizations' behaviour and effectiveness, but is not an isolated function within organizations. Rather, it is a dynamic, interdisciplinary and integrative concept and practice. For adaptive leadership to be successful, it must look back (to understand history and be willing to learn) as well as forward (to set visions for the future).¹ We seek to look backward and forward in this chapter.

It has been two decades since Peter Drucker (and others) observed that organizations no longer fit traditional theories about organizational behaviour.² This was an echo of earlier observations by behavioural scholars that classical theories of the firm did not account for the behaviour and decision making in and of real organizations. To some extent, the same can be said about current theories of leadership: they no longer fit the real world dynamics of leadership, especially when taking psycho-cultural styles into account. While real world leaders have adapted to the changes brought on by globalization (and other mechanisms), theories of leadership have been slower to adapt. Thus, there is a need for an understanding of styles of leadership, especially with the movement toward greater influence of non-Western leaders across different types of organizations (e.g., business, government, military). This is the first major theme of this chapter: encouraging future scholars and practitioners to study in more detail the psycho-cultural differences across organizations and implications for our understanding of leadership.

The second major theme centers around organizational adaptation/adaptiveness. Adaptiveness is particularly important for military organizations.

* The views expressed in this chapter are those of the authors and do not reflect the official policy of the United States Navy or the Department of Defense.

UNITED STATES OF AMERICA

While leaders can undoubtedly change the organizations they are in, they are as much shaped by history as they shape history. Leadership is therefore a process of co-evolution and co-adaptation involving organizations that are adaptive and complex systems of people with limited rationality, incomplete knowledge and foresight, within organizations and cultures shaped by traditions and histories. While history remembers successes, learning from failure is also essential. However, in a world where “heroic leadership” is often the dominating image, it can easily lead to delusions of success and other cognitive biases that could undermine leader’s decisions.³

It is particularly important to review our knowledge of leadership when looking at the military context. The foundation of a military unit is the small team. Teams exist at all levels of the military, from the infantry fire team, to the division commander’s staff team, to the aircraft carrier’s damage control team. The military could not carry out its myriad missions without strong teams, commanded by leaders. To understand the military is to understand how leaders interact with their teams. In this chapter, we draw on leadership thinking from organizational behaviour, social psychology and management to understand how leaders interact with small teams and what lessons we might draw for military leaders. We complement Western management thinking with non-Western leadership styles. Focusing on Chinese-style leadership, we demonstrate that there are multiple approaches to leading small teams, and that military leaders facing an uncertain security environment should learn from and about new models to address new problems.

Military teams routinely operate under extreme conditions and this extremity necessitates adaptability. Adaptive leaders respond quickly to change, organize their team to generate solutions to new problems, and lead performers who perform well under conditions of uncertainty. Adaptive leadership is not necessarily a style of leadership, but a product that might arise from a variety of different styles. We seek to understand how Western and non-Western leadership research can provide insight into what makes leaders adaptable and whether it might be possible to integrate the perspectives.

The rest of this chapter is structured as follows. In the next section, we review several Western-based approaches to leadership and their application to adaptable military leadership. We then discuss Chinese-style leadership, and then synthesize lessons to be learned from Western and non-Western theories.

WESTERN LEADERSHIP APPROACHES

There has been a great deal of interest in Western social psychology, organizational behaviour and other literatures on leadership. As early as 1948, Chester Barnard noted that research on leadership “has been the subject of an extraordinary amount of dogmatically stated nonsense.”⁴ Peter Drucker defined a leader only in terms of “someone who has followers,”⁵ while Jeffery Pfeffer noted that the concept of leadership itself is ambiguous and hard to measure: “leadership is a process of attributing causation to individual societal actors.”⁶ We follow Martin Chemers’ definition of leadership, which suggests it is “a process of social influence through which an individual enlists and mobilizes the aid of others in the attainment of a collective goal.”⁷ Leadership according to this definition requires multiple individuals – leaders and followers – and it is an interactive and dynamic process of social influence, which may be implicit or explicit as well as having both conscious and unconscious elements.

Importantly, Western theories of leadership often make a distinction between the social influence in the definition above and influence based on power or compliance.⁸ Obeying orders to avoid punishment or because of fear is not leadership; the leader plays little real role, and it is the institution that the follower obeys. In the perspective on leadership that we describe, leadership is a social influence process by which leaders communicate ideas and the group willingly adheres to them.⁹ The “authority” of the leader, therefore, is embedded and organic, not forced through a myth of legitimacy or moral superiority of leaders as is often the case in non-Western systems.¹⁰

We discuss four major approaches to leadership: the trait theory of leadership, leader-member exchange, transformational leadership and political psychology. We describe major ideas in each perspective and take steps toward synthesizing the ways in which they can be applied to a military context. By no means do these represent all the possible ways Western scholars have thought of leadership, only some that seem particularly interesting for adaptable leadership in a Western military context.

TRAIT THEORY OF LEADERSHIP

What are the personality traits of effective leaders? This question spurred a great deal of early work on leadership in social psychology. Although its influence waned in the mid-20th century, a resurgence of work started in the 1980s.¹¹ Leadership traits refer to the coherent and integrated patterns of personal characteristics that lead to effective leadership across a variety of situ-

UNITED STATES OF AMERICA

ations.¹² Leadership traits are not just the personality traits that differentiate individuals, but also “motives, values, cognitive abilities, social and problem-solving skills, and expertise.”¹³ These traits are enduring across situations, suggesting that effective leadership is by nature adaptable leadership; a leader who can lead in only one situation would have little value in an ambiguous world.

What are some of the categories of leader attributes that may matter for effective leadership? Work in the 1980s emphasized charisma as important for effectiveness, along with self-confidence, power motives and social skills. More recent work has emphasized general cognitive ability; personality characteristics like extroversion, conscientiousness and openness; motivational needs for power, dominance, achievement, affiliation and responsibility; social intelligence; and problem-solving skills or expertise.¹⁴ When looking at the Big Five characteristics, a meta-analysis found extraversion, openness to experience and conscientiousness to be the most highly correlated with leadership effectiveness.¹⁵ If individuals possess these traits, they are more likely to be leaders; and if they are leaders, they are more likely to lead successful teams. Stephen Zaccaro and colleagues emphasize adaptability, noting traits that allow leaders to “respond effectively and appropriately across situations affording qualitatively different performance requirements.”¹⁶ Experimental results show that self-monitoring and flexibility are important traits for adaptability.¹⁷

However, despite findings that some personality traits are predictive of leadership effectiveness, there are some concerns over trait research. A meta-analysis found that effect sizes for personality constructs were small, with correlations exceeding 0.30 for only seven traits (out of twenty-five). Further, the amount of variance explained by leadership traits is modest.¹⁸ It is important to complement dispositional or personality-based predictors of leadership with other approaches to understand how other processes may influence adaptable leadership.

LEADER-MEMBER EXCHANGE

Leader-member exchange (LMX) theory considers the leader-member or leader-follower dyadic relationship. Leaders do not treat all members of their teams the same, and the quality of the dyadic leader-member relationship characterizes research around LMX. Researchers hypothesize higher quality LMX to lead to better performance. They ground LMX in social exchange theory, which suggests positive social interactions from the leader engender obligations (as they are perceived as favours) on the part of members, mean-

ing members will work harder.¹⁹ The relationship of interest is therefore the dyadic relationship between a leader and an individual member; each member may take a leader's actions differently, meaning it is important for the leader to take an individual approach in leading a team. This requires the leader to be adaptable not just to situations, but to individual team member needs.

LMX research has become a large area in organizational behaviour and management research. One finding from this literature is that high quality LMX arises from several antecedents, including leader behaviours and perceptions, member characteristics, relationship characteristics and situational variables. However, the most important antecedents appear to be leader behaviours and perceptions. A meta-analysis found that the extent to which leaders engage in transformational leadership, contingent rewards, leader extraversion and agreeableness, and high leader expectations of member success are highly correlated with high LMX.²⁰ The same meta-analysis found that LMX leads to lower turnover, higher organizational citizenship behaviour, higher organizational commitment, job satisfaction, perceptions of justice, and job performance. LMX appears to be consistent across individualistic cultures, but the effects may be weaker in collectivistic cultures.²¹ While LMX is a large area of research, there have been arguments that LMX theorists confound levels of analysis in extrapolating dyadic relationships to performance.²²

LMX helps to bridge the gap between leader traits and performance by integrating the team members. Traits alone cannot explain the team processes by which leaders manage their teams; LMX provides the means to explain variation in team performance. Leaders who understand LMX and the means to change relationships with their followers are adaptable to different situations.

TRANSFORMATIONAL LEADERSHIP

Another line of thinking suggests leaders can engage in processes that change the members they lead. Leaders engage in behaviours that transform follower perceptions. They create and communicate compelling visions, lead members through change, and create collective identities. They induce followers to perform at a high level through vision and group identity. Transformational leadership follows from Bass' model. Bernard Bass identifies four components of the model: idealized influence/charisma, inspirational motivation, intellectual stimulation and individualized consideration.²³ All of these factors are ways leaders should behave to achieve charismatic leadership. Note that this is distinct from transactional leadership, where leaders and members operate based on self-interest and where the relationship is an exchange.

UNITED STATES OF AMERICA

When does transformational leadership lead to higher team performance? Empirical work has found that it is not just motivation on the part of the leader, but that seeing the fruits of their labour could motivate members to work harder.²⁴ High autonomy serves as a positive moderator.²⁵ Other-orientation amplifies the effects of transformational leadership, versus self-orientation.²⁶ With respect to adaptability, transformational leadership's positive effects seem to be heightened when change frequency is high.²⁷ Leaders under conditions of change might benefit from transformational leadership techniques.

Van Knippenberg and Sitkin argue that transformational leadership is a problematic construct.²⁸ They point out that the components of transformational leadership vary from author to author, that it is unclear how individual components influence outcomes or processes, that the operationalization of transformational leadership confounds causes with effects, and that measurement tools do not map onto the theory. Transformational leadership is an umbrella concept that has generated interesting predictions of when leadership might be effective, but the leadership research field is beginning to identify its weaknesses and look for theoretically and methodologically rigorous alternatives.

POLITICAL PSYCHOLOGY

Scholars in political psychology emphasize leaders of public organizations, making these studies of particular interest in the military context. Interesting research examines some of the personality traits that may influence decisions and behaviour. This area is related to the trait theories from social psychology, with much of the aim being to understand the behaviour of politicians from a psychological perspective. We highlight this research area because of its direct relevance to military leaders – leadership is not just about assessing one's own style, but also about examining those of others. How might this be done?

Personality assessments of political leaders must be conducted at a distance. Jerrold Post has contributed extensively to personality assessment. Post has constructed personality profiles for various leaders, including Saddam Hussein,²⁹ Osama Bin Laden³⁰ and Yasir Arafat.³¹ He has also contributed to the psychological understanding of suicide terrorism and other terrorist groups.³² He convincingly shows that, for example, Hussein was not an irrational madman, but a calculating and dangerous political actor. Post focuses on leader upbringing and background to construct profiles (Hussein's profile was narcissistic and paranoid), and Post makes specific predictions about and explanations for behaviour.

Post was not the only or the first scholar to focus on personality profiles. The work of Harold Lasswell and Nathan Leites are important intellectual foundations for the modern approaches. Nathan Leites pioneered the operational code construct.³³ Leaders and leadership groups have certain perspectives on how the political world operates; these perspectives colour their understanding of world events and influence their decision making and behaviour. George reframed Leites' original construct into a formal framework where leaders could be assessed on their predicted answers to ten questions – including the role of chance in historical development, the predictability of the political future, and the role of timing to advance interests.³⁴ George split these into philosophical questions about fundamental patterns in political theory and instrumental questions about possible means to ends.³⁵ Researchers code the writings and speeches of political leaders using the Verbs-in-Context System to construct quantitative profiles of leaders on these dimensions. Extant profiles include Jimmy Carter,³⁶ Woodrow Wilson,³⁷ Tony Blair and Bill Clinton.³⁸ Scholars have found convergence in using public and private writings to determine a leader's operational code.³⁹

SYNTHESIS

Western leadership theories emphasize the agency of the leader. Leaders can emphasize certain facets of their personality characteristics and tailor what they use when working with different teams. The leader must take the initiative to direct the team through his/her relationships with followers. Individual relationships are important. The leader should approach individual relationships differently, to cater to each in a manner that would inspire followers to believe in a common vision. Leader's agency is important. There is an individualistic idea in the Western theories that, in some respects, deemphasizes the team when thinking about team leadership. It is the leader who is paramount and it is hard to see where members fit in. Finally, political leaders exhibit certain personality characteristics that may influence how they observe the political landscape and that may influence their behaviour. Despite progress, Western leadership theories leave something to be desired. How much do collective institutions play a role? Leaders and followers are embedded in a social system – does their social network influence behaviour? If personality profiles are important, how much do they matter when compared to leaders' instrumental outcomes? Where is there room for the rational actor in leadership theory?

These factors are important, but a universal factor might be culture. Does culture matter for leadership? Culture is a construct; patterns of shared

UNITED STATES OF AMERICA

meaning, feeling and behaviour that differentiate groups.⁴⁰ Culture permeates organizations in explicit and implicit ways, and it shapes behaviours, as well as guides and constrains how organizations evolve and adapt. Within the organization, culture also affects how individuals perceive their own groups (and other groups), and shapes how human beings interact with one another. If culture leads to differences in these factors across groups, we would expect it to affect leadership. Leadership has to do with groups, the relations between individuals in groups, and the relations between groups themselves.⁴¹ Despite the fact that leadership appears to be ubiquitous across cultures,⁴² it can vary in important ways. In the following section, we consider how non-Western leadership approaches may complement lessons from Western research.

CHINESE-STYLE LEADERSHIP

To paraphrase Drucker, leadership styles and practices seem to have been more adaptive than our leadership theories of them. Non-Western individuals increasingly lead multinational and other organizations. Different leadership styles may be useful in non-Western contexts. Understanding differences between Western and non-Western styles could be useful for several reasons. First, leaders should be willing to learn lessons from unfamiliar contexts. While other leadership styles may not relate directly to Western military leadership, the lessons to be learned could be valuable. Second, Western leaders, particularly in the military context, must work with members or other teams with non-Western backgrounds. To work best with these teams, it is important to understand how they are led. Third, Western military leaders may face non-Western leaders and the teams they lead as adversaries. It is not only advantageous to learn non-Western leadership styles to lead and to work with non-Westerners, but also to confront them.

One important non-Western context is in China. Western leaders regularly interact with Chinese teams and team members. China is a rising economic and military power. Understanding the mechanisms that have led to successful Chinese team performance could help us in the west understand China's rise and how to learn from it. Western scholars have been interested in Chinese leadership for decades; George's study of People's Liberation Army leadership in the 1960s is evidence of early interest in Chinese military leadership.⁴³

CULTURAL DIFFERENCES

How do cultures vary? One dimension on which psychologists assess culture is the degree to which it is individualist or collectivist. These are group-level

constructs analogous to individual-level constructs of idiocentrism (self-orientation) and allocentrism (other-orientation). Cooperation, competition, and individualism, and the degree to which they are manifest, are important indicators of individualism or collectivism in a culture. Individuals in collectivist cultures could be “induced to subordinate their personal goals to the goals of some collective,”⁴⁴ which is typically some stable in-group. There are multiple in-groups in an individualist culture, and goals are consistent with various in-groups; individuals move between groups freely. Conformity is common in collectivist cultures, and cooperation is high within in-groups. Relationships of unequal power are more common in collectivist cultures (i.e., vertical relationships), and there is high interdependence between individuals. People are more important in collectivist cultures relative to tasks. Conceptions of relationships may also differ: relationships in individualist cultures could be framed as acquaintances, with people having many of them, while people in collectivist cultures may have fewer but deeper relationships. People are members of fewer in-groups in collectivist cultures (primarily close family and friends). Collectivist cultures use shame as a mechanism of social control, rather than guilt as in individualist cultures. Collectivist cultures emphasize harmony and lack of conflict. There is empirical evidence to show that the Chinese, when compared to Americans, are less individualist and more collectivist.⁴⁵

While these constructs have generated large amounts of research, there have been some criticisms about whether they represent a useful way of assessing cultures. For example, some argue that individualism-collectivism paints with too wide a brush. The dichotomy is insufficient for assessing values and collective goals, and individualist and collectivist values may not form polar opposites.⁴⁶ Another criticism is that the constructs have been defined in fuzzy ways lacking real validity.⁴⁷ Regardless of critiques, however, scholars have recognized the dichotomy as a convenient way to assess cultures.

There has been interest in understanding how individualism-collectivism relates to management practices. Some work has shown that collectivists perform poorly alone or with an out-group relative to individualists (and vice-versa).⁴⁸ Individualists prefer depersonalized leadership relative to personalized, while collectivists prefer personalized leadership.⁴⁹ A review of work into individualism-collectivism and leadership found that collectivists fit well with transformational leadership (especially aspects of group identity and goals), identify with their leaders’ goals, and have high levels of loyalty to their organizations and leaders. Individualists are motivated to care about their own self-interests, and do well with transactional leadership.⁵⁰ There

UNITED STATES OF AMERICA

appear to be real differences between how individualists and collectivists react to leadership, and these differences should be manifest in China.

RESEARCH IN MODERN CHINESE LEADERSHIP

Western research into Chinese leadership has identified three areas that have influenced Chinese leaders: Confucian philosophy, the collectivist nature of Chinese culture and China's experience under Communist rule.⁵¹ We focus on Confucianism as a primary cultural factor that affects Chinese leadership to this day.

What does Confucianism have to teach about leadership? Confucian philosophy emphasizes improving one's own character; it deals with "humanity, justice, courtesy, wisdom, goodness, courage, principles, and honesty."⁵² Confucius also emphasized justice and duty as of paramount importance. Lakey suggests moral character, performance and maintenance are three important dimensions of a Chinese leadership theory; strong moral fiber is important for leaders to be able to deal with challenging situations. But moral character cannot be inflexible; "to succeed in line...one may sometimes employ a certain amount of guile and underhandedness."⁵³

Practically, five dimensions of Confucian thinking are important for leadership: moral character (high moral sense, acting with morality), human-heartedness (humanism and benevolence), human relationships (skill in interpersonal relationships), lifelong learning (adaptability), and moderation (seeking balance).⁵⁴ Interviews with Chinese business leaders show Confucian thinking influences their leadership style (as do the tenets of Daoism, Mohism, and Legalism).⁵⁵ Confucian philosophy naturally leads to support for paternalism and collectivism, and Confucian writings contain both ideas.

Paternalistic leadership is one of the predominant approaches to management in Chinese firms. Confucian philosophy emphasizes five key relationships: ruler/subject, father/son, elder brother/younger brother, husband/wife, friend/friend. It places a patriarchal figure in the center of the social system. Paternalistic leadership follows naturally from Confucian teachings. Paternalist leadership "combines strong discipline and authority with fatherly benevolence and moral integrity couched in a personalistic atmosphere."⁵⁶ Paternalistic leadership consists of authoritarianism (enforcing will), benevolence (compassion toward subordinates), and moral leadership (superior virtues). Empirical research has shown this to be a common perspective on Chinese leadership, with some authors also identifying issues like large power distance and centralized decision making.⁵⁷

Some Western leadership processes may not be relevant in the Chinese context. For example, some work shows that the LMX processes may not be relevant in modern China.⁵⁸ *Guanxi* relationships, defined as close-knit networks defined by trust and reciprocal relations, are extremely important for Chinese organizations. *Guanxi* creates obligations for the continued exchange of favors.⁵⁹ This might manifest as preferential treatment, nepotism, or other outcomes that run counter to how Western business or government organizations purport to operate. Awareness of how leadership works in China, and how Western theories may or may not apply is important for adaptive leadership: adaptive leaders understand how contextual variables affect their leadership styles.

SYNTHESIS

Chinese leadership comes from a very different context than Western approaches. It is embedded in a cultural context that presupposes members of society fulfill certain roles. Although this has certainly weakened since the days Confucianism was literally the foundation of Chinese government, it remains an important aspect of Chinese leadership thinking. If Confucian thinking governs Chinese leaders, it would be challenging for them to be adaptable and flexible. And yet, Chinese organizations – both public and private – have survived in a world of fierce competition. This example highlights both the importance for Western leaders to remain adaptable, that is, to understand contextual variables like culture that influence how their followers may behave, but also to recognize that adaptability may not be the ultimate goal of leadership in all circumstances. If individuals subscribing to Confucian principles lead Chinese organizations, it is worth learning the circumstances under which it is better to have less adaptability.

LEADERSHIP STYLES AND ADAPTABILITY

At face value, Western and Chinese approaches to leadership share a common characteristics: rigidity. There does not seem to be much room for leaders to adapt – to be successful, they follow a recipe. In the Western context, they are imbued with personality traits that determine their leadership style; or they must seek the correct types of relationships with their follows; or they must interact with their followers to inspire them and transform their way of thinking. In the Chinese context, leaders take a paternalistic, Confucianist approach congruent with the collectivist nature of Chinese culture. Where is adaptability in leadership?

UNITED STATES OF AMERICA

Some Western leadership approaches consider adaptability explicitly. Contingency theories of leadership argue that it is important for the leader's style and approach to fit the needs of the situation. However, some of these theories have been criticized for poor research design and there is mixed evidence for contingency theory's validity.⁶⁰ Yet, interest in contingency theory persists as scholars offer their own versions of antecedents and effects of fit.⁶¹ We agree with the basic premise of contingency theory, but we suggest looking toward the processes that underlie adaptability.

When do leaders have to be adaptable? In a static environment without membership change or task change, leaders would not need to be adaptable. They could continue with standard routines or operating processes and enjoy the same success. There are at least three factors that determine when leaders need to be adaptable: environmental turbulence, member turnover and task change.

ENVIRONMENTAL FACTORS

Leaders and their followers are embedded in larger systems. Groups are embedded in broader social networks that constrain or enable their behaviour. Leaders must respond to these structural factors. Leaders might have the opportunity to take advantage of structural holes;⁶² when there are missing ties between otherwise unconnected groups, the system contains structural holes. Individuals – particularly leaders – who bridge those gaps become brokers, and they transfer information or resources between the groups for mutual benefit. These leaders extract benefits for themselves and for their groups.

Drawing on other social network ideas, leaders could also look at the strength or weakness of ties between groups, as defined by the amount of communication or trust. Strong ties have been shown to be better for transferring non-codified, tacit knowledge, while weak ties have been shown to be better for transferring codified, non-tacit knowledge.⁶³ Weak ties have also been shown to be beneficial for searching for information across a network.⁶⁴ Network structures both force a leader to be adaptable and *allow* a leader to be adaptable.

Another environmental factor is the extent to which the environment is changing or is turbulent.⁶⁵ Management research has examined how environmental turbulence affects organizational strategies and outcomes.⁶⁶ A more turbulent environment will require a leader to be more adaptable – and in the military context, many types of operations have emergent qualities that speak to the concept of turbulence.

MEMBER TURNOVER

Team member turnover has been shown to have a negative effect on group performance⁶⁷. Turnover refers to when team members leave the team and when they are replaced by new members. This is common in the military context. Turnover disrupts the formation of transactive memory systems (TMS)⁶⁸ – meta-knowledge shared by team members of who in the team has what expertise. TMS allows for team members to specialize and for resilience in the face of barriers to success. Indeed, TMS is one of the microfoundations for dynamic capabilities in groups.⁶⁹ Leaders should be aware of how turnover affects their teams, as it could change how they utilize the leadership styles we describe above. If members with critical information, i.e., experts, were to leave the team, team performance could be negatively impacted.⁷⁰ It could be important for leaders to understand and identify experts in their teams and attempt to spread the knowledge around the team to buffer against turnover.

TASK CHANGE

A team or organization may face change. This stems from environmental factors like turbulence that dictate the team must change. It is often difficult for teams to change standard operating procedures, routines, and adapt existing knowledge to a new task due to factors like inertia.⁷¹ In the military context, leaders must try to overcome inertia and change procedures to adapt to new contexts. This might require the building of organizational slack⁷² or absorptive capacity⁷³ that give the organization more flexibility. When tasks change, leadership must react to change with them or the team faces poor performance.

CONCLUSION

The review we have presented on Western and Chinese perspectives on leadership is meant to show how adaptive leadership is embedded in many studies of leadership. Adaptive leadership is not a special form of leadership that exists in unique contexts; leadership must always be adaptive to be successful. The structural factors of the external environment, member turnover and task change make the military context one where adaptive leadership is particularly important. Military organizations are faced with high levels of environmental turbulence, high levels of member turnover and task change. Military leaders must pay particular attention to adaptability, particularly as the organizations in which their teams are embedded face high levels of structural inertia due to bureaucratic mechanisms.

UNITED STATES OF AMERICA

There is clearly great diversity in leadership research. On the one hand, this speaks to the strength of the research community: scholars from many disciplines apply methods that generate unique insights into how leaders should manage their teams and organizations. On the other hand, for a student of leadership, it presents a potential morass of research which yields inconsistent findings. Our aim is to highlight areas of research particularly relevant to military leaders: personality, LMX, transformational/charismatic leadership, political psychology, and leadership in different cultural contexts. Rather than subscribing to one style of leadership, military leaders should be adaptable and draw wisdom from any areas that aid them in their tasks.

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CHAPTER 2

ADAPTIVE MILITARY LEADERSHIP BEYOND CONTROL

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Traditional bureaucratic military organizations are facing a continuous tension between their solid administrative function and adapting agile to ever-changing internal and external conditions. Over time, these conditions transform progressively due to technological, demographic and political changes, and are becoming more complex and more uncertain. Both the velocity of change and the increase in complexity and uncertainty add to the administrative-adaptive tension. Whereas military leadership has trusted in the command and control framework for centuries, radical changes are needed in the mindset and behaviour of military leaders to meet the challenges of the 21st century.

Although adapting has always been inevitable in military operations, the character of the required response to the environment has changed. Military scholars are examining adaptive behaviour on individual, team and organizational levels, for example, by studying recent cases of adaptation in conflicts in Iraq and Afghanistan.¹ Military operations and organizations are increasingly challenged to solve problems with new knowledge and creative behaviour instead of knowledge and procedures already at hand.² This adaptive function at both the operational and the strategic level of the organization can be interpreted as an emergent dynamic rather than planned developmental change.³

Military leadership studies have focused on the process whereby a formal leader influences a group of individuals to achieve desired objectives within hierarchical organizational structures. This model for examining leadership is well suited for the industrial age,⁴ but does not seem to fit the requirements for understanding the role of leadership in the knowledge era.⁵ To re-evaluate military leadership, the emergent dynamic of adaptation must be viewed from an interactive dynamic perspective. Within the traditional

* The views expressed in this chapter are those of the authors and do not necessarily reflect those of the Ministry of Defense or the Netherlands Defense Academy.

NETHERLANDS

bureaucratic military organization, several constraints reside which make it hard to understand and utilize the causes and potential of individual action and interaction in their dynamic and time-constrained environment. Complexity theory approaches the emergent dynamic of the adaptive function as non-linear and offers an alternative perspective to unravel the constraints of traditional bureaucratic military organizations on emergent change. To guide our conceptual research, the overarching question becomes: *How can military leaders deal with the challenges associated with the administrative-adaptive tension to enhance the organizational adaptive function?*

In the next section of this chapter we use the bureaucratic military leadership paradigm as a starting point for exploring ways to enhance the organizational adaptive function. We then introduce and define the concept of military adaptation and illustrate why the bureaucratic military leadership paradigm might not be sufficient to help military leaders adapt to the complex conditions of current and future operations. We then further examine adaptive organizational behaviour using complexity sciences as a lens. With the insights from complexity sciences we denote the constraints of a bureaucratic military organization on the emergence of novelty. From an interactive dynamic perspective, we argue that modern military leaders must expand informal space as an architectural condition for well-functioning complex responsive processes to enhance emergent learning and adaptation. We claim that effectively leading a military operation and organization is about “embracing paradox.” We conclude this chapter with both theoretical and practical contributions followed by suggestions for future research.

THE BUREAUCRATIC MILITARY LEADERSHIP PARADIGM

The ways in which military leadership has been and still is being defined, studied and developed cannot be properly understood without looking at the history of organizational theory. In the 17th and 18th centuries, European scientists replaced faith and tradition with reason and individualism in a period we now call “the enlightenment”. In the enlightenment’s quest for “true knowledge”, scientists tried to understand the world from a subject-object perspective, with the object being natural or logical order and the subject being the scientist as an objective observer. This distinction between subject and object also formed the basis for the belief that the order of things can be modified by the use of ratio.

The scientific trust of the enlightenment in rationality and evolution first became apparent in science, and later extended to political, societal and economic life. With the purpose of reforming organizational functioning using

scientific methodology, the German sociologist Max Weber argued bureaucracy to be the most efficient and rational way to organize human activity. In bureaucratic forms of organization, strict hierarchy and systematic processes embody order and efficiency.⁶ Although Weber argued bureaucracy to be the most efficient and rational way to organize human activity, he also warned of the drawbacks of bureaucratic organizational life. Increased bureaucratization was considered to be a threat to organizational members' individual freedom, as it traps human life in a rule-based and rationally controlled system. To this day, however, the thoughts of the enlightenment implicitly dominate the management, organization and leadership literature. An organization in these theories is perceived as a mechanism or system which can and should be controlled by strategic use of rationality.

Within the bureaucratic paradigm, leadership is a means to controlled organizational functioning. Leader and subordinate participate in a subject-object relation within the strict hierarchy, and contribute to the systematic processes of the organization. In their functioning, they are supposed to fulfill their role as "parts of the system". Their role is strictly defined in terms of their contribution to the goals of the organization. The leader in the bureaucratic system has an important role in translating the directives of those higher up in the hierarchy into the goals and tasks of the group, monitoring performance, ensuring a cohesive and motivated team, and articulating purpose and culture.⁷ The bureaucratic leadership paradigm therefore focuses on the process whereby a formal leader influences a group of individuals to achieve desired objectives within hierarchical organizational structures.⁸

Military organizations have not only been one of the first prototypes of bureaucracy, they still are exemplary for modern time bureaucratic organizations. Through a military command and control framework, with high emphasis on order, efficiency, uniformity and control, systematic processes are continuously applied in rationally redefining organizational reality.

The bureaucratic paradigm and its notions derived from the thoughts of the enlightenment have proven to be effective in structuring organizational life in the last century, i.e., "the industrial age", meeting the requirements of control and predictability. The question is, however, whether or not the bureaucratic paradigm can actually help military leaders to deliver the speed, flexibility and adaptability needed in the "knowledge era" characterized by globalization, new technology, deregulation and democratization.⁹

NETHERLANDS

MILITARY ADAPTATION

Adaptation can be defined as the utilization of knowledge, skills and attitudes that enable people to recognize deviation from expected action and then readjust actions accordingly.¹⁰ *It can be spontaneous or planned, and can be carried out in response to or in anticipation of changes in internal and external conditions.*¹¹ *The capacity to bring about an effective response to an altered situation is what we consider the adaptive function.*

Operational challenges and new technologies are considered to be the main conditions to drive military adaptation.¹² At the operational level, these challenges require military organizations to change doctrine, training, plans and operations. The alterations may also require change at the strategic level, including change of strategy, force levels and (human) resources. The response of military organizations to imperatives and opportunities to adapt is influenced by domestic politics, alliance politics, strategic culture and civil military relations.¹³

Adaptation is sometimes distinguished from innovation. For example, Farrell and Terriff state “innovation involves developing new military technologies, tactics strategies, and structures” whereas “adaptation involves adjusting existing military means and methods.”¹⁴ Adaptation can lead to innovation, when several adjustments over the course of time evolve into new methods and ways of doing things. This does not imply that military adaptation is less significant than innovation. In this view, adaptation and innovation are considered to be two points on a sliding scale, where innovation merely implies a greater degree of novelty and disruptive change than adaptation. Adaptation can also be seen as an *element of innovation*, rather than a result.¹⁵ When looking at challenges that drive change, adaptive challenges can be distinguished from technical challenges. Where adaptive challenges are considered to be problems that require new learning, innovation, and new patterns of behaviour, technical problems can be solved with knowledge and procedures which are already at hand.¹⁶

Experiences from recent operations indicate an increase of adaptive challenges over technical challenges.¹⁷ In ten years of fighting in Afghanistan, the only constant is “the need to adapt and change to the varied circumstances on the ground”.¹⁸ The extremely forbidding terrain and the complex social and political forces required new training and tactics, techniques and procedures.¹⁹ What did and did not work in the field was determined by battalion commanders and their subordinates and they adapted by restructuring their organizations and operations accordingly to improve performance in battle. Bureaucratic processes appeared to collide with the realities of war.²⁰

The required change did not follow a linear, logical and rational process within the formal chain of command. The process of adaptation in the field proved to be much more dynamic and complex. Operational alterations could not be traced back to clearly articulated strategic objectives, instead, the approach evolved iteratively on an ad hoc basis, dictated in part by strategic circumstances framed by the war in Iraq as well as deteriorating circumstances on the ground in Afghanistan.²¹

These recent experiences show that planned developmental change and taking account of uncertainty in a traditional bureaucratic organization might not be sufficient to adapt to complex conditions. Complex conditions require a different approach to resolve adaptive problems with new solutions. Adaptive challenges are therefore not amenable to authoritative fiat or standard operating procedures, but rather require exploration, new discoveries, and creative adjustments.

VIEW ON THE ORGANIZATIONAL ADAPTIVE FUNCTION FROM COMPLEXITY SCIENCE

Complexity theory offers a lens to understand organizational development and the generation of adaptability as a dynamic capacity. It studies the dynamic behaviour of interacting, interdependent, and adaptive agents under conditions of internal and external pressure.²² Complexity theory looks at organizations as being comprised of complex adaptive systems (CAS), that are richly interconnected and dynamically interacting. When a system can be constructed and explained by its components, it is merely complicated. Within complex systems, analyzing the individual components cannot explain all the relationships within the system because they are temporal, dynamic and ever changing. A CAS has an unspecified order, an irreversible history and an unpredictable future.²³ Hedlund describes a generally similar structure relative to managing knowledge flows in organizations that he called “temporary constellations of people and units.”²⁴ CAS emerge naturally in social systems, they are capable of solving problems creatively and are able to learn and adapt quickly.²⁵

Complexity theory cannot offer us predictable outcomes with certainty because of the presence of a multitude of actors who interact in complex ways within the social system. However, complexity theory can be used to explain emergent outcomes of performance by looking at common dynamic patterns. These patterns, also called mechanisms, can be identified as the enablers of dynamic events in the system such as change.²⁶ At a basic level, a general understanding concerning the conditions for complex behaviour and

NETHERLANDS

the dynamic of complex systems can be attained.²⁷ Examination of mechanisms and contexts through the lens of complexity science will help us to understand how and under what conditions certain outcomes occur and how leadership can enhance the social system's adaptive function.²⁸

In any complex system, as well as in organizations, the basic condition of the bond between agents is that of interdependency. Interdependency proclaims that relationships between agents are influenced by interactions of others in the network. Change is a dynamic process between these agents through which *things* emerge and change over time. Complex interactive dynamics generate outcomes such as learning, creativity and adaptability. The behaviours and structures that emerge from the patterns of interaction in the network appear to be random and are unpredictable.²⁹ Within a CAS, there is always a notable movement away from stability and towards disequilibrium, which sparks emergent change processes.³⁰

CAS theory argues that complex organizational behaviour is characterized by nonlinear, emergent change; interaction and interdependency; unpredictability; autocatalytic behaviour; emergent structures; and dynamic movement.³¹ However, CAS are based on computer simulated models of non-human agents and therefore not all insights from complexity science can be projected on social systems of interrelating human agents (i.e., people).³² Where a CAS can be seen as a system, with set boundaries, organizational functioning cannot be understood as a system. Systemic thinking does not sufficiently value autonomous rational human action and cannot account for the emergence of novelty.³³ The nature of mechanistic causality of non-human agents' systems is formative rather than transformative. We can, however, use the insights from complexity theory — not in projection but as analogy to human relating by communication — to interpret human organizational behaviour and the emergence of the adaptive function.

Organizations can thus be seen as *complex responsive processes* (CRP). In process thinking, people in organizations are not thought of as parts of a system producing a system, but as interacting people in relationships producing further interaction and relationships. CRP theory focuses attention on the communicative interaction between people in the form of conversation. In conversation, propositional and narrative themes organize the experience of relating and establish strong interdependencies (i.e., power relations). Apart from the formal, ideological and legitimate themes, unofficial shadow themes exist that can either support or undermine current power relations. The conversational patterns of an organization can become less stable, and more dynamic analogous to the dynamics of the edge of chaos. Novelty occurs when diversity is expressed by conversation in which shadow themes test the legitimate and subvert current power relations. CRP shows us that the adaptive capacity of an organization is determined by the

connectivity and diversity of a social network in which formal and informal discourse collide.

CONSTRAINTS OF A TRADITIONAL BUREAUCRATIC MILITARY ORGANIZATION ON THE EMERGENCE OF NOVELTY IN COMPLEX RESPONSIVE PROCESSES

Key characteristics of a traditional bureaucratic military organization's (TBMO) administrative function are order, efficiency, uniformity and control. There is a need for tight structuring, formal coordination and hierarchical decision making to ensure a clear division of responsibilities, prompt decision making and timely action. However, these characteristics actually constrain the emergence of novelty in complex responsive processes and thus limit the organizational adaptive function. Novelty arises through chaos, connectivity and diversity within and between people, their characteristics and relationships and interaction. The ability of the organization to address adaptive challenges in the knowledge era lies in the emergent capacity of the complex responsive processes.

A TBMO functions through a command and control framework, focusing on increasing efficiency and rational organization with little room for error. The administrative function is structured around strict hierarchy and formal processes. Order lies in the rational way of organizing people and processes in a TBMO. It is part of the mindset, the way we do things around here. Order assures efficiency and uniformity in both people and their behaviour. Although mission command³⁴ in most Western TBMO is the leading doctrine, broad deviation from the norm is never an option.

For efficiency reasons, a bureaucratic organization is a tightly coupled organization, which means that lines of communication and control are short, there is a clear division in hierarchy and power relations and the rules and regulations are clear and will be enforced.³⁵ The organization is structured around dependency and predictability. An organization that is tightly coupled for efficiency reasons, like a TBMO, lacks the ability to deal with the unforeseeable.³⁶ Rigid rule-bound organizations that spell out exactly how people should behave are incapable of generating new forms of behaviour to meet new situations.³⁷

Uniformity is embedded in the military professional identity, assuring trust and like-mindedness. Standardization in training and professional

NETHERLANDS

development, shared ideological perspectives and identifiable uniforms contribute to the ability of the TBMO to be in control. Control satisfies the need for predictability but does not cultivate situational learning and creative approaches to problem solving, let alone the emergence of novelty.

ENHANCING THE ORGANIZATIONAL ADAPTIVE FUNCTION BY EXPANDING INFORMAL SPACE

The adaptive capacity of an organization requires the emergence of novelty. As we have seen, the creation of novelty in a TBMO is constrained by a dominant focus on order, efficiency, uniformity and control. We introduce the concept of informal space as a means to minimize these constraints and maximize the adaptive function. Space can be expanded on three dimensions - the individual level, the interaction level and the communication level.

By expanding the informal space on the individual level, diversity becomes a key element in the organization. Diversity arises through allowing differences in point of view, ideology and talent. Stimulating employees to work from their unique potential, as opposed to mere uniform competencies, allows them to use their freedom to creatively come up with new knowledge and behaviour to solve problems, thereby enhancing their adaptive capacity. Valuing heterogeneity and expanding individual space may reduce uniformity but enhances flexibility and the emergence of new knowledge and learning.

Space can also be given to promote informal interaction. Where formal interaction is directed through the hierarchy and power relations, informal interaction emerges from trust and mutual experiences. Informal networks assure increased speed of communication and information flows. Without giving room for informal interactions, let alone acknowledging their existence, the efficiency with which the right knowledge ends up at the right place is disputable. Formal messages follow formal lines, but when speed and flexibility is necessary, informal interactions are key in complex and ever-changing situations.

Closely related to informal interaction is the content of the communication that flows through the network. The communicative patterns are organized by two themes; the legitimate themes and the shadow themes. The distinction between legitimate and shadow themes is intimately related to ideology, which can be either official or unofficial. Legitimate themes describe the broadly accepted ideology. Through shadow themes, people are able to express themselves more freely, not subjecting to official ideologies, and

actually give less acceptable accounts of themselves and their actions, as well as of others and their actions. Legitimate themes can be both formal and informal, but shadow themes can only be expressed through informal conversation. When informal space is provided for communication, the informal shadow themes are allowed to be discussed. This encourages new knowledge to emerge, comparing multiple perspectives and repeatedly revising knowledge in response to new information.

Expanding informal space enhances the adaptive function of an organization, thereby giving room for novelty to emerge. Novelty translates into new mindsets and behaviours that, in turn, open up the possibility to adapt to the complex and ever-changing context under which a TBMO operates. Expanding informal space as a means to lower the constraints and enhance the adaptive capacity requires a mindset and behaviour of military leaders that go beyond the command and control framework of traditional bureaucratic military leadership. It becomes clear that the adaptive military leader of the 21st century does not stand in a subject-object relation to a system that he/she can or should control.

ADAPTIVE MILITARY LEADERSHIP REQUIRES EMBRACING PARADOX

When we understand the dynamics of an organization, viewed as a complex adaptive system, or complex responsive process, we encounter contradictions in our thinking and behaviour. Some things that we took for granted within the traditional bureaucratic paradigm become apparently contradictory.

Within the traditional bureaucratic leadership paradigm, contradictions are dealt with by regarding them as a dichotomy, dilemma or duality, in an attempt to eliminate them and retain stability, regularity and predictability. As a dichotomy, the contradictions are presented as “either... or choices”. In dilemmas, there seems to be a choice between two equally (un)attractive options. When considered a duality, a contradiction is eliminated by using a “both...and” structure and locating the contradictive terms in different spaces or times. In complexity thinking about organizations, however, the contradiction is perceived as a paradox. A paradox is a state in which two diametrically opposing forces or ideas are simultaneously present, neither of which can be resolved or eliminated.³⁸

There is a manifest contradiction in adaptive behaviour. In adapting to internal and external conditions there is, on the one hand, a need for tight

NETHERLANDS

structuring, formal coordination and hierarchical decision making to ensure a clear division of responsibilities, prompt decision processes and timely action. On the other hand, because of the need for rapid action and the uncertain environment, there is a competing need to rely on flexible structures, on-the-spot decision making, informal coordination modes and creative behaviour.³⁹

In the process of adaptation there is a paradox of continuity. An organization's continuity is attained not by being stable but by transforming to meet the requirements of the environment. Another paradox can be found in predictability. In human behaviour, such as communication, there is a dynamic of simultaneously predictable and unpredictable interaction. A final paradox we would like to denote is the paradox of control. For having control over the organization's adaptive function, every leader is dependent upon the intrinsic patterning properties of social interaction which are self-organizing or emergent.⁴⁰

Leading an adaptive military organization thus means living with paradox. Existing paradoxes cannot and should not be eliminated. Organizational paradoxes generate tension in communicative patterns which may lead to irregular, unstable and unpredictable thought and action but also lead to the emergent creation of novelty within the social system. This is a necessity for a well working adaptive function. Being an adaptive military leader requires understanding and accepting to be in control and not to be in control at the same time.⁴¹ Apart from influencing a group of individuals to achieve desired objectives within hierarchical organizational structures, the adaptive military leader needs to focus on the architectural conditions supporting the social dynamic function, beyond formal hierarchy, efficiency, predictability and control.

CONCLUSION

We have seen that the administrative characteristics of a TBMO constrain the emergence of novelty and limit the ability to adapt dynamically to new situations and contexts. This administrative-adaptive tension is representative of a paradox for military leadership: a tension of being in control while not being in control. On the one hand, military leaders exercise power through formal lines and the command and control structure, and feel secure by this. On the other hand, adapting agile to ever-changing internal and external conditions requires freedom in the social dynamic of an organization. We propose to enhance informal space as a means to acknowledge and utilize human freedom in a necessarily constrained environment.

Bureaucratic organizations are organized around administrative functions. Real organizations, even traditional bureaucratic ones, have fuzzy boundaries between functions, and in practice operate in a more flexible, informal and nonlinear way than on paper. One could say that they are a blend of structured and dynamic behaviours, both present at the same time. Leading a military operation as we suggest will require a mindset and behaviour of military leaders that go beyond the command and control framework of traditional bureaucratic military leadership.

An organization can best be understood as consisting of individuals and their interaction and communication patterns. It is these communicative interactions that make an organization a dynamic self-organizing responsive process. Allowing the unpredictability of non-linear behaviour, the diversity in people and emergence of novelty to occur provides additional opportunity to develop and utilize the dynamic capacity to its fullest. The adaptive function will be enhanced, not by resolving paradox or releasing the adaptive-administrative tension, but by stimulating unstable and unpredictable tension-generating communication and behaviour patterns.

CONTRIBUTIONS AND FURTHER RESEARCH

This chapter contributes to the practice and research communities in three ways. First of all, we disconfirm the assumption existing in military practice that “being in control” leads to desired ends in a complex and uncertain environment. Second, we contribute to the conceptual understanding of adaptive military leadership, helping to move the debate on military leadership beyond the traditional bureaucratic leadership paradigm. A third contribution of this chapter is that it adds to the previous work on military adaptation by highlighting the role of informal space.

This chapter’s contribution to current theory can be further elaborated or extended in several ways. One avenue for future research would be to examine the role of self-leadership in emergent adaptive social dynamic interaction. A second avenue for future research is to study the influence of individual and collective value patterns of military leaders on the adaptive function. The question then becomes, what kind of value patterns contribute to the emergence of novelty and enhance the organization’s adaptive function? Finally, further research is needed to examine the emergence of novelty under both training and emergency state conditions. The question is, how much freedom can there be when operating under emergency state conditions and how can militaries be trained to do so adaptively?

NETHERLANDS

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CHAPTER 3

ISN'T ADAPTIVE LEADERSHIP JUST GOOD LEADERSHIP?

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INTRODUCTION

Leadership matters and in recent history the demands and expectations for good leadership have grown at an exponential rate. To be successful, leaders have had to develop skill sets to help them effectively adapt to increasing spans of control, flattened hierarchies, globalization, the vicissitudes of economic instability, increasing uncertainty and ambiguity, shifting political dynamics, and changing regulatory requirements. While some conditions are idiosyncratic to specific industries, leaders in all organizations (corporate, military and government), have been challenged to keep pace and stay proficient with these unprecedented changes. As leaders have been confronting these increasing requirements for effectiveness, leadership scholars have concomitantly been developing a new area of research; adaptive leadership.

Adaptive leadership research has certainly become a popular and arguably necessary area of exploration given that current conditions routinely present ill-defined problems that are poorly addressed by prior practices. This is certainly evident in the fourth and fifth generations of warfare faced by the world's militaries, where the implementation of cold war and post-cold war doctrine are impediments to contemporary military success. However, the current challenges of applied and academic research have generated such intensity and focus on leading effectively in these strange conditions that there is some ironic risk that many leaders may actually not be adaptive at all. Consequently, it is important to examine the adaptive leadership domain more broadly to carefully guide the understanding and practice of adaptive leadership.

To adequately address the topic of adaptive leadership, we see three main areas that need to be considered. The first of these is the “Be Adaptive”

* The views expressed in this chapter are those of the authors and do not necessarily reflect those of the United States Air Force Academy or the United States Department of Defense.

UNITED STATES OF AMERICA

prescription that seems to exist. Adaptive leadership is seen as necessary, even crucial, in the 21st century, which either implicitly or explicitly implies that leaders should intentionally drive themselves and their organizations to change. Clearly, change for the sake of change is not the best strategic move for a host of reasons. We must be careful that we are not putting the proverbial “cart before the horse” in these situations and having leaders drive for change without the proper understanding of why such change would be necessary or even beneficial.

The second area involves the context in which such adaptive leadership would be enacted. Industries have different levels of desire for adaptability, different levels of acceptance, tolerance for adaptability and different levels of ability to implement adaptability. Organizational cultures and regulatory and doctrinal requirements affect the likelihood and the rate of adaptability. The classic example here is a military organization. Such organizations are steeped in policy and rigid authority structures (i.e., the chain of command). One can imagine that purely adaptive leadership could meet some resistance from the “system.”

The third area in which we want to raise concern is about the construct of adaptive leadership specifically. There is no doubt that effective leadership can require adaptive skills, but there seems to be a fragmenting movement within leadership research toward developing a myriad of specialized leadership types (global leadership, cultural leadership, etc). While this narrow and specific approach can add value, it needs to be balanced with an ongoing, broader and more integrative view about the general components of fundamentally effective leadership. Each of these will now be addressed in more detail.

WHAT IS ADAPTIVE LEADERSHIP?

To help frame these areas, it is important to briefly consider definitions from the recent literature on adaptive leadership. One of the challenges affecting the practice and examination of this style of leadership stems from its various definitions. Nonetheless, Yukl and Mahsud address the core of adaptive leadership as changes in “behavior in appropriate ways as the situation changes.”¹ Military definitions, and specifically US Army conceptualizations, expand this definition to include a recognition of environmental changes, assessment of the critical changes, and ability to shift practices to meet the new requirements.² This is explicated even further by defining an adaptive leader as one who influences people within a complex context of uncertainty to both

accomplish the mission and improve the organization.³ These definitions tend to be centered on the leader (i.e., adaptive leaders) and indicate that a particular set of competencies is expected for adaptive leadership. This is certainly evident in the definition offered by Hannah and colleagues, where adaptability is set of abilities of the leader to adjust thoughts and behaviours to make effective responses to ill-defined, novel and changing environments.⁴

THE “BE ADAPTIVE” PRESCRIPTION

For many scholars directly working with the military, there is a general push for adaptive leadership since there is a perceived military necessity for leaders to be adaptive.⁵ The idea that adaptive leadership is a characteristic of the leader indicates that adaptive leaders possess a particular set of qualities. These qualities encompass abilities that range from cognitive to social to team building skills, as depicted in Table 3.1. An interesting implication is that these competencies also appear in other models of leadership and are commonly identified as valuable leader characteristics.⁶ However, it should be pointed out that there are a couple of fundamental characteristics that represent shared and defining elements of adaptive leaders, including external awareness and evaluation, and being open to making appropriate changes.

Burpo (2006)	Cojocar (2011)	Wyszynski	Yukl & Mahsud (2010)
Decisive	Risk tolerant	Calculated risk-taker	Cognitively complex
Balances people and technology	Change agent	Shows strength of character	Socially and emotionally intelligent
Tolerates ambiguity	Open-minded	Mentally agile	Open to learning
Focused/quick learner	Critical thinker	Self and situationally aware	
Empowered			
Communicative			
Team builder			

Table 3.1: Expected Competencies of Adaptive Leaders

UNITED STATES OF AMERICA

Several of the elements of adaptive leadership are directly related to open-mindedness, innovation and change in general, which are core characteristics for the personality trait of openness. Openness has been related to leadership in general, with a modest relationship to transformational leadership, and specifically to intellectual stimulation.⁷ Openness as a personality trait includes cognitive exploration, examination of different environments and a tendency to be more change oriented than inclined to stick to tradition. Considered this way, some leaders will be very open to experience whereas others will not as a function of individual differences. Consequently, generalized support for adaptive leadership will align favorably with leaders possessing this personality disposition—those who tend to be willing to try different things, who are more accepting of risk, and who are more spontaneous and interested in change to see how things can be different.

In contrast, those low in openness may feel thwarted and frustrated by the adaptive prescription. It does not reflect their natural inclination and requires them to work outside of their comfort zone. Ironically, those low in openness would certainly have to adapt more than those high in openness to demonstrate adaptive leadership as a competency. Those with natural tendencies toward openness would need less leadership development in this area than those with the opposite disposition, and even with training, it could be difficult, if not impossible for such leaders to fully stretch into the adaptive zone. As a result, in some settings this would make them vulnerable to derailing. Pressed to be more adaptive in terms of faster decision-making, particularly those decisions related to change, leaders low in openness may not be very effective.

The issue of derailing is important. The consequences are broader than leader effectiveness because leader inflexibility could ultimately lead to failure of leadership. One example of derailing is to be too conservative in situations that call for innovation or adaptation. Another way of derailing is to have an excess of such a characteristic. Hogan and Hogan describe this well in their examination of dark side traits.⁸ With respect to adaptability, the relevant dark side trait is the imaginative personality. A cardinal feature of this trait is the emphasis on creativity over practicality. Hence, imaginative leaders have the potential to appear adaptive in their ability to promote “out of the box” thinking, yet these idea generators may simply delegate “the devil is in the details” and expect subordinates to enact an unrealistic plan. Thus, even though adaptive leadership is currently seen as critically important and is regarded as an expected competency, this does not necessarily translate into a “more is better” approach. Certainly, leaders must prepare for the future, but

they also need to execute effectively to meet current challenges. Essentially, they must have some relative balance to successfully “develop ‘next practices’ while excelling at today’s best practices.”⁹ Leaders need to be versatile; appropriately balancing rather than overdoing a particular characteristic.¹⁰

In sum, adaptive leadership is in demand in this century (and likely always has been). However, organizations in general and promoters of adaptive leadership would be wise to not promote change merely for the sake of change or to support flexibility that blurs strategic direction. Adaptive leadership is a complex competency that requires the ability to deliver results in both the long and the short term. Further, as it is a competency, leaders cannot just turn on this ability. To the extent that elements of adaptive leadership are rooted in personality and dispositional tendencies, some leaders will benefit more from developmental efforts than others. Clearly an important parameter in such development is the level of adaptability expected and tolerated in the organizational context.

THE ADAPTIVE CONTEXT

Behavioural scientists have long recognized that behaviour is a function of the current situation. Adaptive leadership adds specificity to this point by asserting that adaptive leaders should have conscious recognition of the situation and implement deliberate interventions to shape and/or adjust to situational conditions. While it is virtually impossible to identify all of the possible environmental conditions leaders could face, there are two important contextual conditions that can be highlighted. The first has to do with the general organizational culture, including organizational differences in how they expect, accept, tolerate and respond to adaptability. The second is the alignment of an organization’s reinforced practices and the stated expectations of the organization’s objectives and identity. These organizational elements are in some ways obvious, but because they are omnipresent they can often become familiar and invisible as leaders think and act within their specific organizational contexts.

The work by Robert House and colleagues is informative in understanding organizational culture.¹¹ Based on their research, nine dimensions of culture have been identified, ranging from the nature of hierarchical relationships (i.e., power distance) to the integration of men and women and male and female roles (i.e., gender egalitarianism). Most pertinent to the concept of adaptability is uncertainty avoidance. Uncertainty avoidance is the extent to which members of an organization or society strive to avoid uncertainty by

UNITED STATES OF AMERICA

reliance on social norms, rituals and bureaucratic practices to alleviate the unpredictability of future events. Uncertainty avoidance is in many ways the opposite of adaptability, since adaptability has a present and future orientation in terms of scanning the environment and considering new ways of responding, whereas uncertainty avoidance uses the past to try to predict the future and apply tried and true methods to unforeseen circumstances. A synonym for this approach in a military context is doctrine. Certainly doctrine has value, but similar to personal characteristics, it can be narrowly and rigidly applied. Indeed, Yingling soundly criticized American military generals for their failure in the realm of strategic thinking.¹² This limitation is not unique to the military either, as companies like Kodak and General Motors failed to adapt to changing environmental and market conditions.

One solution for balancing the management of uncertainty and simultaneously preparing for the future is organizational ambidexterity. This concept, raised and evaluated by Gibson and Birkinshaw, examines contextual ambidexterity as the capacity to simultaneously demonstrate alignment—focus on meeting the goals of the business unit—and adaptability—the capacity to reconfigure activities to meet changing demands.¹³ In their analysis of multiple and varied business units they found that ambidextrous units, even at moderate levels of ambidexterity, outperformed organizations that were more exclusively adaptive or aligned.

There is certainly intuitive appeal for suggesting that adaptable leadership needs to appropriately plan for and respond to the external environment and endorse adaptation in some circumstances and support stability and status quo in others as the above research would indicate. However, this general position does not provide much specificity or guidance—clearly more information is needed. A particular variable studied is the nature of the industry under consideration, and there is some research to support this notion that the nature of the industry might matter. For example, in the hospitality business, responsiveness (essentially agility and adaptability) predicted performance.¹⁴ Conversely, a large scale study done in a financial organization did not find that an adaptive orientation was related to performance.¹⁵ Taken together, these studies point to the possibility that there are industry specific variations in the need and value of adaptive leadership. It is clearly reasonable to believe that very traditional, stable, and highly regulated organizations require less emphasis on innovation and change than do dynamic and leading edge organizations. Thus, certain financial sectors, manufacturing and regulated industries, may have a lower requirement for adaptive leadership than software, research, and development and entertainment industries.

An implication of industry specific adaptation is that highly adaptive leaders will fit much better in highly adaptive organizations, and furthermore, mismatches could create unproductive tension rather than useful forward movement.

One way these mismatches could occur would be from a discrepancy between the outward way an organization characterizes itself and its internal practices. Simply put, this is the point Argyris informs leaders about in the disparity between theories in use and espoused theories.¹⁶ He highlights the ineffectiveness that can occur when espoused theories state one thing, such as “we are an innovative organization” and yet the theory in use—the actual practices—suppress innovation and even reward the opposite. For example, during the US automobile bailout, neither Chrysler nor General Motors were consistent in saying they were cost conscious when their executives traveled to Washington, DC in their corporate jets. Similarly, following sequestration, US Air Force leadership emphasized the financial impact on military readiness, yet when funds began to be released, one of the programs reinstated was the performances of the Thunderbirds, an aerial demonstration team. The potential for organizational mismatches is high if there is a discrepancy between espoused theories and theories in use. Organizations that claim to be adaptive yet inhibit a leader’s ability to push the organization into the future will engender just as much tension as organizations who profess to being traditional yet demand innovation. Leaders and leadership that are truly adaptable will work to recognize such misalignments.

THE ADAPTIVE CONSTRUCT

It is clearly not easy to be an effective adaptive leader. Similarly, it is challenging to be an effective leader in general. The list of competencies for both adaptive and effective leaders is extensive and demands remarkable abilities. Furthermore, this list of competencies is overlapping. Indeed, it overlaps a great deal, and depending on the list, it can readily be argued adaptive leaders are simply exceptional leaders or that they have a couple of specialty skills not identified in general leadership models. For example, Mumford and colleagues have developed a leadership strataplex, a component of which identifies the complex requirements of leaders.¹⁷ The broadly conceived skills include cognitive, interpersonal, business and strategic competencies. Embedded within these competencies are important components of adaptive leadership, as they entail mental abilities in terms of searching for and examining information, strategic skills in considering how current and future data and issues impact the competitive advantage of the company, and

UNITED STATES OF AMERICA

interpersonal and business skills to effectively influence, communicate and resource initiatives.

Similarly, a list of universal leadership characteristics includes having foresight, planning ahead and being dynamic; characteristics that also share many elements of adaptive leadership.¹⁸ Picking other frameworks, Boyatzis has argued that modern competencies include cognitive skills, social intelligence, and emotional intelligence whereas Yukl and Mahsud add systems thinking and openness to the list.¹⁹ Thus, the lists are overlapping and the recent work on adaptive leadership has not done enough to distinguish the uniqueness of adaptive leaders from good leaders in general. The scholarship on adaptive leadership would be more richly informed by further examining the specific characteristics of leaders and leadership, the conditions under which adaptation is called for, and the contexts in which it is valued.

Without this specificity, adaptive leadership seems to emerge as a leadership niche without a great deal of fidelity. From the perspective of scholars, and certainly of practitioners who are saturated with leadership theories, there is clearly a need, as asserted by Avolio for a more integrative approach to leadership theory building.²⁰ In recent years, leadership topics have included a huge array of perspectives, including transformational, authentic, global, cross-cultural, toxic, servant and shared, and the list goes on. Minimal work has been done to focus rather than expand the direction of leadership theory (an exception being the work done in authentic leadership to identify a core). A consequence of expansion is diffusion and fragmentation, creating the risk that leaders will chase the newest competencies because the new idea is launched ahead of research that identifies the crucial boundary conditions and unique impact. Adaptive leadership is a high potential idea, but it is also associated with a bandwagon effect with leaders interested in being adaptive without making a careful inventory of their behavioural repertoire, their capacity for behavioural differentiation, and a less than complete understanding of the contextual elements so critical to adaptive leadership. Thus, there is still much work to be done.

RECOMMENDATIONS: SO WHERE SHOULD WE GO WITH ADAPTIVE LEADERSHIP?

Organizations should value and will continue to need leaders who are adaptive and who can facilitate adaptive leadership within and across small units as well as the entire enterprise. All the conditions that necessitate adaptation are likely to be present for a while; there is no anticipated slow down

for the rate of change, technological advancement, and need for speed with communication, globalization and competition. In general, there is a tremendous need for good leaders, and arguably, there is a shortage of talent. This situation puts leadership research at a challenging crossroads. One approach would be to continue the trend in leadership research and dive into each niche of leadership as it emerges. The alternate approach would be to focus on the truly core elements of exceptional leadership and concentrate on integrative studies. That said, this line of thinking is of an either/or nature, and research on leadership (e.g., ambidextrous organizations) suggests a balanced both/and approach would be even more productive. Consequently, future research should explore, and be cognizant of, the value in both differentiation and integration.

As research on adaptive leadership continues, there are important gaps and issues to address in its development as a concept and practice. Yukl and Mashud have effectively addressed several future directions for research.²¹ Their recommendations include greater specificity regarding the antecedents of adaptive leadership, with particular focus on the traits, skills and cognitive mechanisms involved in recognizing the need for change, deciding how to make appropriate adjustments, and influencing and other processes required for implementation. This line of research will also refine the specific characteristics involved in adaptive leadership to give it a unique identity rather than a construct that is merely embedded in the general practice of effective leadership. Such research is needed to narrow the bandwidth on the unique competencies that represent adaptive leadership as well as to provide fidelity for prerequisite competencies. Yukl and Mashud also suggest better methodologies, to include experimental manipulation of conditions and longitudinal studies. Obviously, additional research will provide more specificity about levels of leadership and adaptability as well as industry specific variations. At a more macro level, the domain of leadership would be well served by looking less eagerly for differentiation and investing more in integration. The types of leadership and various competencies that go with them have become divergent, yet there is still an underlying theme of core competencies across the various types. Echoing Avolio's earlier call, this is a good time for re-examining the foundation of leadership.²²

From a practical point of view, adaptive leaders can continue to develop themselves and expand their behavioural repertoires using an assortment of developmental best practices. As described by Day, 360 degree feedback, mentoring, coaching, stretch assignments and action learning have value for leader and leadership development.²³ Yukl and Mashud offer more

UNITED STATES OF AMERICA

specific guidance for leaders interested in expanding the skills and traits that would help them be more adaptive, such as learning more about some of the competencies specific to adaptive leadership (e.g., cognitive complexity).²⁴ Such endeavors would help develop leadership versatility and mitigate derailing risks that stem from either insufficient skills or overdone strengths.²⁵ Further, leader development could include the benefits derived from understanding leadership tasks at different levels (or different points in the pipeline).²⁶ Yukl and Hasud also offer specific tips for leaders who are transitioning to different levels, as well as suggestions for leaders who are in crisis situations, dealing with emerging threats and opportunities and working in different contexts.²⁷

Leaders who desire to be adaptive in their organizations will be well advised to fully understand their context as it pertains to change possibilities and the rate of change that would be tolerated within their organization. Adaptive leaders in an organic and dynamic organization may be well matched to the organization's pace and agility. The same leader in a formal, bureaucratic, and highly regulated organization will need to temper expectations or look for a better match elsewhere. Certainly senior leaders in these organizations should also be honest about the way they conduct business to better align their espoused theories with their theories in use. If not, they could find themselves struggling with morale and turnover issues.

Adaptation can be considered a military necessity. However, there is much more to being an effective military leader than the ability to adapt. The expectations for military leaders are extensive. For example, the U.S. Air Force has an Institutional Competency List that prescribes over 40 necessary qualities that officers should possess and acquire across a career, ranging from attributes of character to broad stewardship of the enterprise. This long list of competencies is not intended to be a "wish list" of desired capabilities. Many map directly onto universal leadership characteristics, such as honesty, decisiveness, excellence oriented, communication skills and being an effective team builder.²⁸ Moreover, many effective leadership skills captured within the transformational leadership model have been consistently related to organizational performance. For example, Bass and colleagues found that leaders who were rated in the garrison context as transformational led units that performed better in field operations (a more ambiguous context).²⁹ Thus, leaders who were motivating, set high standards, showed concern for subordinates, and were adaptive and flexible were associated with higher performing units.

The idea that military leaders need to be broadly competent in garrison and deployed environments, in peacetime and in combat, has received additional support. Sweeney found that deployed troops needed to reassess their trust in leaders in the deployed environment, and that trust needed to be recalibrated for new leaders and for those whose competence had not yet been demonstrated.³⁰ However, leaders who had built a positive reputation prior to deployment sustained that favorable evaluation in the combat theater. While adaptability would certainly be a competency to elevate leadership trust, many other universal qualities (e.g., confidence builder, dependable, intelligent, informed, positive, and just) contribute heavily as well.³¹ Hence, military leaders like other effective leaders, in many situations are expected to be more effective if they are indeed adaptive, but adaptive leadership is clearly not the only critical competency for military leaders, nor is it necessarily the cardinal competency. Military leaders need to have broad skill sets and capabilities.

CONCLUSION

Adaptability is currently a popular concept for leadership scholars and practitioners. While it makes intuitive sense for us to agree that an effective leader needs to be adaptable, there is much to be considered in that statement. Before we take another step toward the label of adaptive leadership, we need to understand that there is more work that needs to be done. At a minimum, we need to determine what adaptive leadership is. Are we referring to a distinct type of leadership or are we referring to a subset of skills that are required for effective leadership? Certainly, the best adaptive leaders have to be good leaders first. While there has been some work done to date, there is a relative paucity of research that sheds light on this question. In addition, we must thoughtfully consider the context in which the leadership will be enacted. The magnitude and pace of adaptation needs to be scaled to the organization's culture and particular industry. Being highly innovative, change oriented, and even impatient are characteristics not well suited to every organization, so leaders must consider the match between their style and that of the organization to effectively lead change. In this manner, leaders clearly have to understand the organizational politics and use political skill to support adaptive effectiveness.³² This is a difficult endeavor. However, it does not mean that we should not continue to pursue the issue. It is through the pursuit of such challenging issues, that we learn, change and grow. Hmm...sounds a lot like adaptability.

UNITED STATES OF AMERICA

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CHAPTER 4

LEADERSHIP RESPONSIBILITY AND DISOBEDIENCE

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INTRODUCTION

Usually, moral questions about military disobedience and command responsibility are discussed with reference to the rights and duties of soldiers. Even though there may be some merit in considering the topic from that point of view, an alternative approach is taken in the present chapter. Here, the issue will be discussed in terms of interpersonal relations and the aim of the chapter is to clarify the conceptual relationship between leadership and disobedience. For simplicity's sake, I shall focus on soldiers who are fit for duty.

The chapter starts with an account of command responsibility. I shall argue that a leader must take due care of civilians and expose subordinate soldiers to due risk only. Building on this, I shall consider whether military disobedience becomes morally permissible if a leader does not live up to this task of preventing undue harm to civilians or undue risks to subordinate soldiers. Arguments will be presented which suggest that, as a matter of principle, morally permissible disobedience can be accounted for in these situations. There is, however, an important caveat: soldiers can often not be expected to know whether they have been exposed to undue risk or whether civilians have been victims of undue harm. Following this line of thought, a soldier may only disobey if his leaders have not lived up to their command responsibility and if he has knowledge of *undue* risks for himself (or other soldiers) or *undue* harm for civilians that have resulted or may result from commands that directly concern him.

The subsequent part of the chapter is devoted to epistemic¹ criteria for knowing whether the circumstances are such that they may lead a soldier to disobey. There are two sorts of knowledge which are salient in this respect: moral and factual knowledge. The moral knowledge needed is knowledge about

* The views expressed in this chapter are those of the author and do not necessarily reflect those of the *Militärakademie* or the Swiss Armed Forces.

SWITZERLAND

the conditions under which command responsibility has been breached. The factual knowledge needed is knowledge about actual harms and risks or foreseeable harms and risks. Factual knowledge is relatively easy to come by, as it merely requires observation and inference. If harms and risks are not observable or foreseeable through sound reasoning, there will be no knowledge sufficient for disobedience even if a breach of moral responsibility seems highly plausible. The difficult requirement is the one concerning moral knowledge. How can a soldier, who does usually not have a first-hand experience of what it is to take on the command responsibility of his superior, know whether undue harms have been inflicted or undue risks have been taken? In other words, how can a soldier know whether a measure is proportionate in terms of harming civilians or exposing soldiers to risks?

I shall argue that a soldier who has the relevant factual knowledge cannot conclusively know in most situations whether disobedience is morally permissible or not. But once he/she has the relevant factual knowledge that harm has been inflicted and that high risks have been taken, he could ask himself whether the mission (as far as he understands it) and the war require these measures. He might then reasonably believe that he may disobey, but he should also bear in mind that he does not know. From a soldier's subjective perspective, disobedience is always a shot in the dark. What are the consequences for leadership? If a soldier permissibly disobeys, the leader has failed to take command responsibility—he has failed to adapt himself to moral requirements. And if the soldier impermissibly disobeys, the leader has failed to make sure that his subordinates know relevant facts or that they know what their superior's command responsibility involves in a given situation—the leader has failed to adapt his communication efforts to his soldiers' situation. At any rate, a leader has made a mistake if subordinates, who are not cognitively impaired or behaving irrational, disobey: either he has failed to adapt himself to moral requirements or he has failed to adapt his communication efforts to his soldiers' situation. It is therefore always clear who is to blame when soldiers, fit for duty, disobey.

COMMAND RESPONSIBILITY AND DISOBEDIENCE

Generally speaking, command responsibility is about the care that officers in command are supposed take. As I shall construe it here, command responsibility has two aspects. First, there is a causal responsibility, because orders must be regarded as causing what was ordered if the circumstances are right (e.g., the task is possible, or subordinates have received the appropriate

training and materials for carrying out the order) and if there are no interferences cancelling out the order (e.g., a contrary order, moral common sense or laws forbidding what was ordered). Second, there is a moral responsibility, because orders must be morally blameless—not only for moral reasons, but also because anybody with command responsibility represents the organization and its values, which cannot be reduced to the specific person in charge.

Reasons backing up this bipartite view of command responsibility are relatively easy to come by. If there was no such thing as causal responsibility, it would always be uncertain whether an order will be carried out or not, as the order would not have the appropriate force. And that is exactly what we do not want to happen, especially in the context of military command responsibility. If there was, on the other hand, no moral responsibility, anybody in the position to give orders might give orders without having to worry about what moral consequences his/her orders have—he could then make others do immoral things, reap the profit and, perhaps, have them bear the consequences². Furthermore, people with military authority represent an army, a government, the people behind these institutions and their values. If military leaders are not ready to bear the moral and legal consequences of their orders, they are unfit to represent official bodies and their values, as one can only act in the name of an authority if they can be trusted to adhere to that authority's interests. Somebody who is not prepared to bear the consequences is simply not trustworthy.

Of course, “causal responsibility” is not meant to connote anything like a billiard ball bumping into another billiard ball, thus causing it to move. Human behaviour is much more complex and that is precisely why moral and legal considerations can interfere and cancel out orders—human values and legal conventions do not have such a direct effect as billiard balls.³ But sometimes human values and conventions, especially moral common sense and law, do not effectively cancel out a pernicious order and the effects are disastrous. For such cases, moral responsibility should be acknowledged and moral and legal consequences must be drawn. This is all the more important in war, for it is in war where moral common sense and law sometimes fail to cancel out bad orders and it is in war where we must take special care that the right consequences are drawn. For the present argument, the moral dimension of command responsibility is all about what consequences people with military authority deserve because of the orders they give.

In Just War Theory, command responsibility is explained in terms of human rights. Especially individual rights to life and liberty are the footing for moral evaluations of war, military ethics in general and, therefore,

SWITZERLAND

command responsibility. Michael Walzer suggests the following basic principle for moral evaluations:

[N]o one can be forced to fight or to risk his life, no one can be threatened with war or warred against, unless through some act of his own he has surrendered or lost his rights.⁴

Walzer himself is reluctant to call the rights to life and liberty natural, but he explicitly holds “that they are somehow entailed by our sense of what it means to be a human being.”⁵ Nevertheless, commentators assume that these individual rights to life and liberty are natural rights in Hart’s sense, as they meet the two conditions Hart set down: first, they are rights human beings have by virtue of being human; second, they are rights not conferred or created by any voluntary action.⁶ So, Walzer is at least committed to Hart’s first condition, but he does not want to officially subscribe to the second.

In Walzer’s principle quoted above, “can” surely has normative force. Only if one has surrendered or lost one’s rights to life and liberty, one’s suffering the horrors of war will be morally acceptable. The difficult part of such an approach lies with the conditions under which one counts as having surrendered or lost one’s rights. How can we determine whether somebody has surrendered or lost his/her rights to life and liberty if those rights are not conferred or created by any voluntary action? Presumably, surrendering or losing a right always requires voluntary action. Either one wilfully yields one’s rights or one does something wrong and thereby loses their rights. However, human beings possess individual rights to life and liberty by virtue of being human. It is therefore hard to see how such natural rights can be surrendered or lost, because no human being can voluntarily stop being human.⁷ There is hence a serious conceptual tension between the special status of rights to life and liberty on the one hand and, on the other hand, the requirement that these rights can be surrendered or lost if anything about war should be morally excusable.⁸

Walzer’s basic principle does not, therefore, provide good grounds for an account of command responsibility. But this does not mean that there is nothing in what Walzer writes that can serve as a good starting point. Here is one of his insights, which appears more suitable for the present purposes:

No one would want to be commanded in wartime by an officer who did not value the lives of his soldiers. But he must also value civilian lives, and so must his soldiers. He cannot save them, because they cannot save themselves, by killing innocent people.⁹

What is particularly attractive about this passage is that it focuses on soldiers and on whom they want to be commanded by. It has been clear for a long time that soldiers—even those centrally involved in atrocities—depend on the interpersonal relationships they have within their companies when they evaluate situations and decide on how to act.¹⁰ And since soldiers' disobedience is the overarching topic of this chapter, such a view from within promises to be more informative than a view from without, couched in very abstract terms too reminiscent of natural law theorizing.

Any soldier has the professional responsibility to carry out orders. This is *prima facie* not a virtue, even though many might want to see it as particularly virtuous or valuable if a soldier in command focuses on fulfilment of his orders. But a soldier in command who does not focus on fulfilling his orders lacks professional integrity, because being in command simply means following orders with a group of subordinates. Of course, there are certain immoral orders that must not be carried out and there are also immoral ways of carrying out legitimate orders. Hence there are moral constraints on the extent to which professional integrity may demand a focus on fulfilling one's orders.¹¹

Disobedience cannot be based on not liking the fact that one's leader follows orders, as that simply amounts to rejecting one's duty as a soldier. Disobedience must be based on moral constraints, which make it permissible that one does not carry out an order or that one does not carry out an order in a certain prescribed way. Walzer mentions what sort of constraints are important here: civilian lives must be valued and soldiers' lives must be valued. He is also clear about the relative weight each of the two constraints has, when soldiers in command make their decisions:

There is obviously leeway for military judgment here: strategists and planners will for reasons of their own weigh the importance of their target against the importance of their soldiers' lives. But even if the target is very important, and the number of people threatened relatively small, they must risk soldiers before they kill civilians.¹²

Leaders must adapt their decisions and orders to these moral requirements. It might seem appealing to say that a subordinate has a right to disobey if civilians' lives and soldiers' lives are to be put to undue risks. If the risks are very high and large scale violations of human rights are imminent—like just before a foreseeable massacre—one might even speak of a duty to disobey. One might be tempted to base this duty on the idea that the rights to life and liberty do have a special status (and are natural laws), while bearing in mind that these rights cannot really be surrendered or lost by becoming a soldier,

SWITZERLAND

by committing atrocities or by anything else. This would be an attempt to smuggle in rights through the backdoor and make them carry moral weight again. The problem with such a perspective is, of course, that no killing or military coercion will ever be permissible, not even in clear cases of self-defence where the defender finds himself threatened by an overwhelming and lethal force. For a naïve pacifist, this is obviously not a problem but a virtue of such a perspective.¹³ For the naïve pacifist, disobedience is always the right choice if the absolute rights to life and liberty are threatened. And whenever there is such a threat, command responsibility cannot be borne. Of course, this is a special form of nihilism that rules out genuine military action as a matter of principle. The right response to this is that some threats have to be faced, for human lives and the values that make them meaningful are worth defending. So, how else can we understand disobedience if both civilian and soldier's lives must be valued, but genuine military action should remain possible at the same time?

Instead of rights to life and liberty, we can speak of basic needs and proportionality. Undue harm for civilians would then turn out to be constituted by any military action that prevents civilians from satisfying their basic biological needs and from suffering fear of getting killed or maimed. Still, there would remain considerable leeway for proportionality considerations: due harm for civilians means harming a few civilians as a side-effect of a military action, which prevents many other civilians or soldiers from getting harmed. Due risk for soldiers would be analogous: risking life and well-being of a few soldiers carries less weight than risking life and well-being of many soldiers. But here we have an additional condition: it must be possible to expose soldiers to higher risks if civilians can thereby be saved, as soldiers must protect (or at least spare) civilians. So, even if we chose not to speak of rights to life and liberty, we can still formulate sensible moral constraints, based on the value of human life, to which leaders must adapt. Of course, command responsibility requires that at least the continued physical survival of civilians is neither directly nor indirectly jeopardized by a mission. There might be reasons to do more for civilians, but this is not always possible, or even necessary. The situation is a bit more complicated in the case of soldiers. From an objective point of view, what I have just said may be enough. But from the subjective view of soldiers, they can expect more from their leaders. And since their expectations make a difference for whether they obey or not, more details on the subjective view of soldiers are required.

Sihls and Janowitz mentioned various factors which ensured obedience in the Wehrmacht during Second World War.¹⁴ It is possible to extract a set of

basic soldierly needs from these factors, which clarify the extent to which command responsibility entails valuing soldiers' lives.¹⁵ Orders restricting these needs count as exposing soldiers to undue risks and form the grounds for morally legitimate disobedience, if the soldiers cannot expect any proportionally higher good coming from following their orders and maintaining their morale:

- *Physical/Spatial Integration*: Soldiers must not be isolated from their groups for too long, as lack of face-to-face contact with their peers promotes doubts and weakens identification with military objectives.
- *Psychological Ties*: Soldiers must believe that they receive the psychological support that they need, either from their peers, their leaders, their subordinates or their families and friends at home. They need ties which they judge sufficiently stable; one time psychological support might be less relevant, as it is usually not backed up by the positive memories associated with reliable ties.
- *Physical Survival*: If soldiers fear destruction, disintegration of the group and disobedience become more probable, as serious concern about food and health can topple group solidarity.

Even though the claim needs empirical support, one can expect that disobedience and, ultimately, desertion will usually not appear as viable possibilities for soldiers fit for duty as long as they are physically integrated, have psychological ties and need not worry much about physical survival. Morality and political ideas seem not to play a large role when soldiers begin to seriously consider disobedience. Sihls and Janowitz write about the situation in the Second World War:

Among German deserters, who remained few until the close of the war, the failure to assimilate into the primary group life of the Wehrmacht was the most important factor, more important indeed than political dissident.¹⁶

Still, unless their basic needs are frustrated so much that they start to panic and become irrational, disobedience does, even from a subjective point of view, require rationalization. So, soldiers considering disobedience (or even desertion) will have to come up with reasons which make it morally permissible. The question now is what sort of reasons they have available to morally justify disobedience to themselves and, possibly, to others? And here we can

SWITZERLAND

simply point out that civilian and soldiers' lives must be valued, which means that both ought to survive and that, furthermore, soldiers also require integration and psychological ties. If a leader gives orders which clash with this basic respect for life and if it is not clearly foreseeable that such a disrespect is merely a side-effect of preserving the dignity of many more lives, disobedience is permissible. And if one is, under such circumstances, supposed to give orders which further disrespect, disobedience is compulsory, because a leader must not even try to pass on the moral weight of a wrongdoing, which he/she himself/herself was not able to bear, to his/her subordinates.

So far, I have argued that we should not approach command responsibility in terms of rights. It is more plausible to focus on interpersonal relationships and the situation that soldiers find themselves in. The main question then becomes what sort of moral constraints there are that could morally justify disobedience? Based on Walzer's work and a list of basic needs derived from Sihls and Janowitz, I have argued that a straightforward notion of respect for life can provide adequate moral footing. Of course, we can experiment with different lists of basic needs and we can have long discussions about different measures of proportionality. We may also ask what "respect for life" does precisely amount to and how it compares to human dignity and human rights. But these are not the issues I shall worry about in what follows.¹⁷ The problem for subordinate soldiers, at least when we keep issues about disobedience in mind, is an epistemic one. How can they know whether moral constraints on command responsibility have been fulfilled or not? How can they know whether they may or even ought to disobey? Once answers to these questions have become available, another question appears: what attitude should leaders have vis-à-vis disobedience and how should they adapt their leadership to avoid it?

EPISTEMIC DIMENSIONS OF DISOBEDIENCE AND CONSEQUENCES FOR LEADERSHIP

In the preceding section, I have argued against Michael Walzer's proposition that we should understand command responsibility in terms of rights. Instead of rights, I have relied on a notion of basic respect for life, which puts the following moral constraint on military authority:

If a leader gives orders which clash with a basic respect for life and if it is not clearly foreseeable that such a disrespect is merely a side-effect of preserving the dignity of many more lives, disobedience is permissible. And if one is, under such circumstances, supposed to give orders which further disrespect, disobedience is compulsory.

This is an objective principle in the sense that it does not require considering particular needs, thoughts and emotions of soldiers.¹⁸ But there are, as I have also argued, good reasons to suppose that this is not sufficient to make sense of disobedience and how it is related to command responsibility. The objective view neglects the particularities of the situation in which soldiers fit for duty find themselves. How can they know the relevant facts? How can they know whether a military measure is proportionate?

Studies of the Second World War suggest that disobedience and desertion do not usually appear viable, even if the objective principle would permit it and even if soldiers are actually ordered to partake in atrocities. This remains true as long as the soldiers remain spatially and psychologically integrated in their companies and do not have to worry about their physical survival.¹⁹ What is required, then, is an analysis from a more subjective point of view, which clarifies how the belief is formed that disobedience is viable. Such an analysis should also help explaining what role leadership plays in the process.

If we consider the objective principle already mentioned, there are certain facts that a soldier must know in order to find out whether disobedience is a sensible option. The soldier must know whether civilians or soldiers are harmed or will be harmed as a result of what his leader(s) order him to do. Often, this is easy to know, because soldiers usually aim before they shoot. Sometimes, it is not so easy. It can, for example, be hard for a drone pilot to distinguish civilians from terrorists. Sometimes, civilians suddenly appear where one was supposed to drop a bomb.²⁰ In any case, it is always possible that things turn out to be different than one had assumed. So, if observation or inference yield knowledge about actual or possible harm, the necessary facts count, of course, as established. But what about other people's reports and testimonies? What about rumors?

Testimony, especially in war, is not reliable as long as there are no observations or inferences buttressing it. Testimony only conveys what others believe or know to be true and, as such, it is not about the facts of the matter, but rather about other people's epistemic states. Furthermore, loyalty demands a positive presumption regarding the information that leaders and official channels provide: as long as there is not at least factual knowledge about actual or possible harm, a soldier must remain loyal and carry on, presuming that those in charge do their work. At the end, only observation and inference can be regarded as providing the factual knowledge sufficient for moral assessment.

The foregoing has consequences for leadership. When it comes to facts which are relevant for the moral evaluation of disobedience, leaders can exert

SWITZERLAND

influence. If they communicate all possibly relevant facts, they can strengthen the ties they have with their subordinates, show that they care about the facts and that they, hence, care about whether their orders pose a threat to civilians or subordinates. They can even explicitly ask their subordinates to report relevant observations, thus strengthening the ties even more. But if it turns out during combat or after that the leader knew about possible threats and that this information would have been relevant for his subordinates, he will probably have risked the soldiers' or some civilian lives in a way that makes disobedience permissible or even obligatory.

The factual knowledge that soldiers need to decide matters of obedience is relatively unproblematic. If they can observe or infer it, they have it. If they cannot, they should be loyal to their leader and trust their judgment—knowing that if he/she has remained silent about important facts, they would have a good reason to disobey. And of course, capable leaders are aware of this and adapt their communication. Factual knowledge is only one part of what a soldier must have in order to settle questions of disobedience. The other part is moral knowledge. That is, knowledge about whether orders, which somehow violate basic respect for life as a side-effect, can be morally justified by the immediate or foreseeable preservation of many more lives. It is this sort of knowledge about whether a military measure is proportionate that is hard to come by.

The limited factual knowledge soldiers have makes it impossible for them to decide whether they are fighting a just or an unjust war. Of course, they can have beliefs based on observation and inference, but they can never be sure to know enough of the whole picture to evaluate what they are involved in. Their “responsibility is limited by the range of their own activity and authority.”²¹ Walzer writes that, within that range, their responsibility “is real enough, and it frequently comes into question.”²² But we should distinguish two things here. One is the moral obligation that every soldier should question whether the part they are playing is morally acceptable. That would be a normative consideration. The other aspect to this is that soldiers in wars are under stress and even if that does not affect them much, they may not be inclined to consider moral issues as long as their basic needs are fulfilled. That is a factual point contradicting Walzer's statement that a soldier's individual responsibility frequently comes into question. It may be that it should come into question, but it probably does not. And when it does, decisions are difficult to make, because moral knowledge about what is proportionate is hard to get. But why is that so?

The main point here is that soldiers do not usually know all aspects of what their leaders' command responsibilities involve. They do not know on what level the proportionality judgment has been made. Proportionality considerations

come in at various strategic, operational and tactical levels. And it is quite likely that soldiers do not have the sort of information to understand with sufficient precision how the proportionality judgment has been made. They only have access to judgment about harms through observation and inference. And they can only evaluate proportionality as far as their own actions are concerned.

Of course these epistemological²³ considerations do not suffice to show that soldiers must defer all moral questions to their leaders. Furthermore, the fact that their basic soldierly needs are cared for and that, therefore, moral questions—especially questions of disobedience—do not seem pressing, cannot exempt them from the moral responsibility that they have within the range of facts they can actually observe or infer. Nevertheless, for what is outside the range of facts that ordinary soldiers have access to, they cannot be blamed and they seldom have good reasons for disobedience.

On the positive side, the epistemological considerations show, first and foremost, that responsibility is greater the more factual and moral knowledge one has. The higher one is in the chain of command, the more responsibility one has and, therefore, it will be easier to decide whether disobedience is permissible. For the ranks and functions which make proportionality judgments, disobedience becomes compulsory if undue harms for civilians or undue risks for soldiers are simply accepted for the sake of military goals. Leaders can only adapt to these moral requirements successfully if, first, they have the training to make informed proportionality judgments and, second, they have the integrity to accept the moral consequences of their orders and actions.

Note that there are different ways to accept the moral consequences of what one orders or does. One can be prepared to accept the blame, one can tweak the orders one is about to give or one can slightly modify the way one reacts to an order one has received—often the second and third option are readily available and they need not count as forms of disobedience. Walzer also points out that, no matter what organizational level one belongs to, there are always alternatives to disobedience:

[I]n rear areas as well as at the front, there are ways of responding to an order short of obeying it: postponement, evasion, deliberate misunderstanding, loose construction, overly literal construction, and so on. One can ignore an immoral command or answer it with questions or protests; and sometimes even an overt refusal only invites reprimand, demotion, or detention; there is not risk of death. Whenever these possibilities are open, moral men will seize upon them.²⁴

SWITZERLAND

The variety of responses to an order that Walzer mentions becomes especially interesting if one lacks factual or moral knowledge sufficient for rationalizing disobedience, but still believes that there is something immoral about the orders one has received. These different responses make it possible for anyone to bring moral considerations to bear on a situation and to acknowledge moral responsibility. And if leaders bear these further options in mind when they carry out orders and, at the same time, make sure that their subordinates have all the information to make good judgments about whether or how they want to apply moral standards within their range of influence, they can build stronger ties with their subordinates, preserve their moral integrity (as well as the moral integrity of their subordinates) and minimize conflict potential with their own leaders.

SUMMARY

There is much potential for leadership adaptability when it comes to moral questions surrounding disobedience. The potential does, however, only appear if one focuses on interpersonal relationships and the conceptual connections between command responsibility and leadership. In summary, leaders must not only be sensitive to the relationships they have with their subordinates—that should be self-evident—but leaders must have received training in making sound proportionality judgments (as appropriate to their rank and function) and they must also have a good character, which ultimately shows as moral integrity to accept the consequences of what they order and do.

ENDNOTES

1. Epistemic: of or relating to knowledge or knowing. Retrieved on 8 April 2014 from <www.merriam-webster.com/dictionary/epistemic>.
2. If, for example, Zimbardo's analysis of the facts about Abu Ghraib is correct, then the extent to which leaders have failed to accept moral responsibility for their orders has been generally and greatly underestimated. From a conceptual point of view, such cases are not difficult to assess, but there is a real question as to why straightforward moral assessments, backed up by psychological evidence, do not find application in actual jurisprudence. See, Philip Zimbardo, *The Lucifer Effect: Understanding How Good People Turn Evil*. (New York: Random House, 2007).
3. Movement in physical space is a matter of nomological connections between events. It makes little sense to say that human values and conventions should be anything like these events and partake in the sort of nomological connections familiar from classical physics. We do, however, say that orders cause what has been ordered if the circumstances are right. Whether this is merely a metaphorical way of speaking or exemplifies a special sort of nomological connection between agents and states of affairs is something that cannot be decided here.

4. Michael Walzer, *Just and Unjust Wars. A Moral Argument with Historical Illustrations*. 3rd ed. (New York: Basic Books, 2000), 135.
5. Ibid.
6. See Herbert L. A. Hart, "Are There Any Natural Rights?" in *Rights*, David Lyons, ed. (Belmont CA: Wadsworth Publishing Company, 1979), 15; and James M. Dubik "Human Rights, Command Responsibility, and Walzer's Just War Theory", *Philosophy and Public Affairs*, Vol. 11, No. 4 (1982), 356.
7. This is not exactly right, but somebody who kills himself does not surrender or lose his rights. Instead, he loses his life.
8. Dubik, 359.
9. Walzer, 155.
10. For discussions of the situations that Wehrmacht soldiers found themselves in during the Second World War, see Edward A. Sihls and Morris Janowitz "Cohesion and Disintegration in the Wehrmacht in World War II", *The Public Opinion Quarterly*, Vol. 12, No. 2 (1948), 280-315; and Söhnke Neitzel and Harald Welzer, *Soldaten. Protokolle vom Kämpfen, Töten und Sterben* (Frankfurt: S. Fischer, 2011).
11. There are also legal constraints. But for present purposes, I shall focus on moral issues.
12. See Walzer, 157 and 305, for more details on soldiers' duties vis-à-vis civilians.
13. This is not to say that there are also sophisticated pacifists who pursue more insightful lines of argument.
14. Sihls & Janowitz, 288-291.
15. It is possible to adapt the list of basic soldierly needs to form a list of basic needs for prisoners of war. But as there are various topical cases and legal considerations that should be taken into account, the issue will not be discussed here.
16. Sihls & Janowitz, 285
17. I do not think that aiming at general answers can yield satisfying results. It seems to me that we first have to discuss particular cases (for which we have reliable empirical data) and then work our way to a more abstract level before we can ask whether general rules and absolute values make sense at all.
18. This presupposes, of course, that psychological ties and the other basic soldierly needs are objectively observable and not merely a matter of subjective appraisal.
19. Compare Neitzel & Welzer.
20. For a case study, see Walter E. Carter Jr., "The Ibar Bridge Attack", *Journal of Military Ethics*, Vol. 12, No.4 (2014) 373-375; Emmanuel R. Goffi "The Ibar Bridge Attack: a Moral Assessment", *Journal of Military Ethics*, Vol. 12, No. 4 (2014) 380-2; and Michael N. Schmitt "The Ibar Bridge Attack: a Legal Assessment," *Journal of Military Ethics*, Vol. 12, No. 4 (2014), 376-9.
21. Walzer, 304.
22. Ibid.
23. Epistemology: the study or a theory of the nature and grounds of knowledge especially with reference to its limits and validity. Retrieved on 8 April 2014 from <merriam-webster.com/dictionary/epistemology>.
24. Walzer, 314.

CHAPTER 5

AN EVIDENCE-BASED APPROACH TO UNDERSTANDING HOW LEADERS CAN FOSTER ETHICAL BEHAVIOUR

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INTRODUCTION

In May 2007, General David Petraeus¹ wrote a letter to military personnel serving in Multi-National Force (Iraq) stating:

I fully appreciate the emotions that one experiences in Iraq. I also know firsthand the bonds between members of the “brotherhood of the close fight.” Seeing a fellow trooper killed by a barbaric enemy can spark frustration, anger, and a desire for immediate revenge. As hard as it might be, however, we must not let these emotions lead us – or our comrades in arms – to commit hasty, illegal actions.

General Petraeus took preventative steps to communicate his expectations of military personnel by explicitly stating that he did not want strong emotions to lead to “hasty, illegal actions.” Strong and adaptive leadership that recognizes risk factors that can lead to unethical action, such as feelings of anger and revenge, and then takes preventative measures, is important for ensuring that military personnel uphold the highest ethical standards. Although Canadian and allied militaries generally act with the highest levels of professionalism, there have been highly publicized cases of military personnel acting unethically. For example, the Somalia affair involving Canadian Airborne Regiment members, the Baha Mousa case implicating British soldiers, and the Haditha incident involving U.S. Marines are highly publicized cases of military personnel acting unethically.

Leaders can take preventative steps to ensure that their followers act ethically in operations and in-garrison. The purpose of this chapter is to provide

* The views expressed in the chapter are those of the authors and do not necessarily reflect those of either the Canadian Armed Forces or the Department of National Defence

CANADA

leaders and military organizations with a resource they can use to foster ethical conduct. We begin by explaining how people make decisions. Next, we explain how stress and emotions can impair decision making and create risk factors that can lead to unethical conduct. We then recommend strategies that leaders can employ to help their followers be better prepared to maintain the highest ethical standards, even under challenging circumstances.

DECISION MAKING AND STRESS

To understand how stress can affect ethical behaviour, it is important to understand how people make decisions. Sometimes people make quick, intuitive and effortless decisions, which are beyond their level of awareness² and do not require access to a working memory resource.³ This kind of quick and effortless type of thinking is called Type 1 processing.⁴ Firing drills and other repetitive training used by militaries to make behavioural responses automatic are examples of Type 1 processing at work. Indeed, the “train as we intend to fight” doctrine is predicated on the insight that successful training depends on the appropriate response being automatic.

At other times, people make decisions in which they engage in deliberative, effortful processing that is generally slow and involve controlled attention and awareness.⁵ This kind of thinking is called Type 2 processing. Unlike Type 1 processing, Type 2 requires access to a working-memory resource. Type 2 processing is used any time you need focused attention, such as when completing your taxes and/or learning a new task. It is also used when reasoning about hypothetical moral dilemmas.

The part of the brain used for Type 2 processing is impaired by stress.⁶ When the part of the brain used for Type 2 processing is impaired, moreover, people are less able to exercise emotional control.⁷ Type 1 processing, however, is not impeded by stress.⁸ In fact, Type 1 processing may even function better under conditions of high arousal.⁹ Consequently, it has been recommended that ethics be taught in a way that is consistent with the train as we intend to fight approach, such as confronting military personnel with realistic ethical situations that simulate stressful operational settings and then teaching them how to respond appropriately.¹⁰

The value of applying the train as we intend to fight approach to ethics is that it may help military personnel be better prepared for the stressful ethical situations present on operations. Stressors such as seeing a fellow soldier being killed by enemy fire can lead to thinking shaped by the heat of the moment.

“This heat of the moment thinking” (also known as “visceral factors” or “visceral states”) refers to bodily states that are directly experienced, namely, negative emotions (e.g., anger, frustration), feeling states (e.g., pain), and drives states (e.g., fatigue, sexual arousal)¹¹ and can play a significant role in shaping behaviour.¹² When people are in the heat of the moment, their perceptions of what is appropriate behaviour can change.¹³ Moreover, they may act in ways that are inconsistent with their long-term goals and intentions.¹⁴ Visceral states can lead to impulses that tempt people to satisfy immediate desires at the expense of long-term goals and intentions.¹⁵

It is important to recognize that emotions can lead to impulses, but that these impulses do not necessarily lead to behaviour.¹⁶ Military personnel may experience anger after witnessing the death of a fellow military member and feel the impulse to seek revenge by killing a non-combatant. Indeed, it appears that heat of the moment thinking may have been a contributing factor in some highly publicized military cases involving unethical conduct in the past. In most cases, however, the impulse to seek revenge when people are caught up in the heat of the moment does *not* typically lead to unethical behaviour. Research on aggression has found that impulses do not cause aggression; instead, lack of self-control causes aggression.

Master Warrant Officer David Shultz received the Star of Military Valour for his leadership while serving as a patrol commander in Kandahar province in Afghanistan. On May 6, 2008, then Warrant Officer Shultz and his patrol were ambushed, leading to the death of Corporal Mike Starker. Shultz described the thoughts that ran through his mind that day in a phone interview with one of the authors:¹⁷

Corporal Starker had been wounded very badly and we moved him out of the direct line of the impact zone...and then went back in. By then you're seeing absolute red. When we went back to the FOB [forward operating base] and the medical officer...pronounced Mike as being killed in action, again I was filled with rage, I was filled with hate—I was ready to go absolutely berserk....But you can't just go out and start shooting everybody because you had a TIC [troops in contact] the previous day. When you're a commander of a platoon or a patrol you have to set the example, set the standard, and show that you're in control of your emotions. Your weapon is clean and ready to go. All your gear is working. You're leading guys back into harm's way but you're going to be professional about it.

CANADA

Despite the intense emotions caused by Corporal Starker's death, Master Warrant Officer Shultz reigned in his emotions and controlled his desire to seek revenge.

Order of Military Merit and Meritorious Service Cross recipient Lieutenant-Colonel Darryl Mills also discussed his thoughts and emotions with one of the authors during an interview.

So every time I got into firefights—must have been about...15 or more—it was always because someone was attacking us first. And I used to hate that... I couldn't get out of the fact that to them we were the enemy... I would think, I'm here to help you, we're rebuilding this country...but clearly they wanted to kill us. So I would get really angry... How dare you shoot at me. I'm not doing anything to you. I didn't shoot at you first. I didn't come to get you, so don't try to kill me... Not that I would do something...unethical...[and] kill someone I shouldn't be killing, but it was not difficult to kill someone that was shooting at me.

As Lieutenant-Colonel Darryl Mills describes it, he experienced strong emotions yet maintained his professionalism. In other words, both Master Warrant Officer Shultz and Lieutenant-Colonel Mills demonstrated self-control. We argue that self-control is one of the critical differences between military personnel who act ethically despite impulses to act otherwise and those who have faltered—that is, self-control is a distinguishing characteristic of professional and ethical military personnel. However, while self-control is an individual factor influenced by visceral states, it can also be depleted by overuse.

THE LIMITS OF SELF-CONTROL

Self-control refers to people's capacity to inhibit or override their immediate desires and urges and to act in accordance with their long-term goals and interests.¹⁸ It involves controlled attention and engages people in Type 2 processing. Lack of self-control as a stable individual trait has been linked to deviant behaviour, such as cheating and nonviolent crime.¹⁹ Although self-control can be treated as an individual trait, it is also a state that can fluctuate within the same individual. As a result, researchers have found that exerting self-control on one task can deplete people's self-control on subsequent, unrelated tasks.²⁰ For example, in one study²¹ some people were asked to control their emotional reactions (i.e., to exert self-control) while watching an upsetting documentary about wildlife and environmental catastrophe, whereas

other people were not asked to control their emotional reactions (i.e., did not exert self-control). After watching the documentary, people were then asked to complete a physical stamina task. People who exerted self-control were less able than people who did not exert self-control to persist on the physical stamina task. Even though controlling one's emotions and persisting on a physical task seem unrelated, they actually tap into the same self-control resource. In short, people have a limited supply of self-control.²²

Physical stamina is only one example of how a single act of self-control can leave people with less self-control to call upon in subsequent tasks. Researchers have also found that people who used their self-control resource on one task were then more likely to act aggressively in response to provocation,²³ show less sexual restraint,²⁴ have impaired cognitive performance on intellectual tasks,²⁵ be unable to inhibit impulsive behaviours,²⁶ and demonstrate greater procrastination.²⁷

Self-control can become depleted in numerous ways, therefore, and the depletion of self-control can impact subsequent behaviour. For instance, when people engage in actions that require self-control, their glucose levels drop and they are less able to exert self-control on subsequent tasks.²⁸ Nonetheless, self-control levels can be replenished with sugar, lessening impairments due to depleted self-control.²⁹ Resisting temptations,³⁰ making choices,³¹ religious reminders,³² fatigue,³³ stress,³⁴ mood,³⁵ orderliness³⁶ and any act that requires controlled attention depletes people's ability to override their impulses on subsequent tasks. Order of Military Merit and Meritorious Service Cross recipient Lieutenant-Colonel Darryl Mills discussed how many of the factors that increased self-control reserve were encouraged to positive effect by his former commander, U.S. Army Lieutenant General Rick Lynch, the Commander of the U.S. Third Infantry Division:

We will not survive in combat if we think we can work 20 hour days and just drive ourselves into the ground. So right from that start... he started this battle rhythm called, 15, 7 and 2. So his idea was 15 hours of work, 2 hours of...personal time, which he expected it to be PT (physical training), [so] you're at least doing something physical to decrease the stress. And seven hours of sleep. At first, that's a big culture shock to the U.S. Army, because the guys just wanted to keep working and working and working, and they wouldn't delegate things; they thought they needed to be there every minute for all the important events. But he led by example.... That was to me critical in terms of one of our huge successes that had nothing to do with the enemy, had nothing to do with any external factors. That was just the culture

CANADA

and the decision of one man to enforce a routine which he thought would be effective for a long duration of the unknown. And it was.³⁷

Fostering Ethical Behaviour

Cases where behavioural responses are often automatic, such as combat situations, present an increased need for self-control. Several strategies are available to adaptive leaders that may help foster ethical and moral behaviour, such as developing personnel's self-control. In particular, we propose several areas for future research, namely, improving self-control, labelling emotions, establishing goal intentions and ethical culture.

Improving Self-Control

While self-control is a limited resource that can be depleted,³⁸ a great deal of research suggests that self-control should also be thought of as a muscle that can be strengthened through exercise—i.e., regular practice and training.³⁹ For example, Thomas F. Denson and colleagues⁴⁰ found that periods of self-control training can effectively reduce anger and aggressive responses in those who are high in trait aggression. Likewise, Eli J. Finkel and colleagues showed that people who had engaged in self-control training for a two-week period were less likely than people who had not to respond aggressively after provocation from their intimate partner.⁴¹ Importantly, self-control training can result in improvements even after cessation of the routine.⁴²

Self-control training refers to using controlled attention for actions that are usually carried out in an automatic way. Researchers have found that the benefits of self-control training are not context specific: individuals exhibited better self-control via healthier eating habits, a reduction in impulsivity (e.g., less impulsive spending and better emotional control), as well as improvement in several other behaviours requiring this resource regardless of what behaviour the training actually focused on (e.g., adhering to a pre-set study program⁴³ or exercise regimen,⁴⁴ monitoring and maintaining good posture or eating habits,⁴⁵ controlling emotional reactions,⁴⁶ daily logical reasoning tasks).⁴⁷ The intention of these self-control exercises is not to improve the seemingly inconsequential tasks they involve, but more generally to strengthen awareness of and ability to control one's emotions and behaviours. Targeting the general ability to engage in self-control encourages people to become more attentive to the decisions they make and enables them to make harder choices.

Importantly, practising strengthens the ability to exercise self-control in the heat of the moment.⁴⁸ Compared to participants who were instructed

to write about engaging in self-control, those who actually practiced (i.e., avoiding sweets or squeezing a handgrip) performed better in a subsequent self-control task. This has important implications for the application of the train as we intend to fight doctrine. Most notably, ethical training programs that focus on active rather than passive self-control exercises will ultimately result in better ethical decision making among military personnel in combat.

Practicing complex cognitive processes like logical reasoning and reading comprehension can also increase self-control.⁴⁹ Reducing the effort required by cognitive processes leaves more resources for self-control. Alex Bertrams and Brandon J. Schmeichel⁵⁰ tested this idea by assigning some participants to engage in a daily logical reasoning task for one week, whereas other participants were asked to engage in daily mental exercises that did not require logical reasoning. After this, they had participants complete a task that depleted their self-control resource, and then assessed their self-control. Those who had completed daily logical reasoning tasks exhibited greater self-control than those who had not. This research also revealed that the improvement in self-control was fleeting. The beneficial effect of the logical reasoning tasks disappeared a week after participants stopped performing them, suggesting that people must continually practice to maintain the benefits. In light of this finding, self-control training should be repetitive rather than conducted in a single session.

Labelling Emotions

Using words to describe one's feelings and emotions, called "affect labelling" in the scientific literature,⁵¹ has been shown to have positive physical and mental health outcomes.⁵² For example, researchers have found that talking and writing about traumatic events can improve immune functioning and mood.⁵³ James Pennebaker, Janice Barger, and Ronald Tiebout⁵⁴ found that, when interviewed about the Holocaust, survivors who were open to discussing the trauma experienced less discomfort (than people who tended to inhibit discussion of the trauma) and were more likely to report better health outcomes 14-months later. Discussing trauma diminishes the negative emotions associated with the event, aiding the recovery process. Using words to describe emotional events reduces the intensity of the experienced emotions.⁵⁵ When people interpret emotional events without labelling their feelings, they are generally relying on the part of the brain used for Type 1 processing where information is automatically processed; when people use language to articulate their emotions, they are using the part of the brain involved with Type 2 processing and controlled attention.⁵⁶

CANADA

People may not always be aware of the benefits of labelling their emotions. M. D. Lieberman and colleagues⁵⁷ asked people to predict how they would label their feelings after being shown emotional images. They found that people who labelled their emotions experienced lower distress levels when they were eventually presented the images. Interestingly, people actually thought that labelling their feelings would make them feel worse (i.e., greater psychological distress). This suggests that people do not always recognize the factors that can lead to improved mental health outcomes.

Breathing Techniques

Another strategy that may be effective in reducing “heat of the moment” decision making is engaging in relaxation breathing exercises. Research has shown that a slower breathing rate can decrease both physical and psychological stress responses⁵⁸ and can also help increase the ability to override impulses.⁵⁹ Moreover, controlled breathing is directly linked to heart rate variability, which has also been shown to increase when people engage in self-control.⁶⁰ Breathing practices are an important component of mindfulness meditation, an intervention that has been shown to improve the ability to control emotions and impulses.⁶¹ While promising, further research in a military context is needed to assess whether implementing breathing and meditation techniques can help military personnel reduce impulsive decision making, in turn promoting ethical behaviour.

Establishing Goals

Another strategy for fostering ethical behaviour is to make effortful decisions and actions less challenging.⁶² One method for reducing effortful processing of information is by creating plans that determine “when, where and how” a person intends to achieve a particular goal.⁶³ And one effective way is to use if-then statements to specify the when, where and how. The technical term for this approach is “goal implementation” or “implementation intentions”. For example, “If situation *X* occurs, I will initiate the goal-directed response *Y*.” This strategy can be applied to the military context to help personnel achieve the ethical goals. For example, leaders could adapt the follow “if-then” statements to the situations found in their unit. “If I witness a buddy killed in action, I will take slow deep breaths” (breathing techniques promote Type 2 processing). Or, “If locals throw rocks at me, I will focus on the words that describe my emotions” (affect labelling promotes Type 2 processing).

Setting implementation intentions (i.e., using “if-then” statements) has proven effective for goal attainment in a variety of circumstances, from things

as simple as adhering to daily vitamin intake⁶⁴ and attending cancer screening,⁶⁵ to more effortful behaviours like maintaining a healthy lifestyle by eating well,⁶⁶ exercising,⁶⁷ and reducing alcohol consumption.⁶⁸

Implementation intentions work because they make goal-directed behaviour automatic in cases where behaviour is reliant on Type 1 processing. Forming implementation intentions for goal-directed behaviour improves the accessibility of information relevant to the goal and, as a result, control of the behaviour becomes automatic.⁶⁹ Importantly, implementation intentions focus not only on action plans that will aid in achieving a goal, but also on suppressing those that could prevent people from reaching their goals.⁷⁰ According to Elizabeth J. Parks-Stamm and Peter M. Gollwitzer, “automaticity would be very beneficial for individuals encountering dangerous situations in which complex thinking and decision making is not possible. For example, military personnel and police officers respond to dangerous and emotional situations. Rather than formulating a viable response in situ, these individuals may enact their planned responses through implementation intentions directly.”⁷¹

Moral Credentialing

Research by Jennifer Jordan, Elizabeth Mullen and J. Keith Murnighan⁷² showed that people who recalled their past *immoral* behaviour cheated less than people who recalled their past *moral* behaviour. When people are reminded of their past immoral behaviour, they feel the need to compensate so that they can restore their belief that they are a moral person. In this way, they strive to improve their behaviour. When people are reminded of their past moral behaviour, they relax their moral standards. In other words, they have already established their credentials as a moral person, so they feel more comfortable cheating. Research has demonstrated that people who previously disagreed with blatantly discriminatory statements were more likely than those who did not to indicate their willingness to engage in discriminatory hiring practices.⁷³ Benoit Monin and Dale T. Miller⁷⁴ coined the term “moral credentials” to refer to people who have established that they are egalitarian and ethical and, as a result, are at an increased risk for making less egalitarian and ethical decisions in the future.

More research is needed to establish whether leaders who remind personnel of their group’s past favourable behaviour, such as ethical behaviour, is a risk factor for future misconduct. Likewise, more research is needed to establish whether reminding personnel of their past undesirable behaviour reduces future misconduct. To date, no empirical research has examined this issue; however, one senior officer in the Canadian Armed Forces explained how his

CANADA

former Commanding General applied a similar strategy in theatre to change undesirable behaviour with positive outcomes. In particular, Lieutenant-Colonel Darryl Mills described an example of U.S. Army Lieutenant General Rick Lynch, author of the book *Adapt or Die*, encouraging military personnel to strive to improve their behaviour:

We had a lot of traffic accidents after our first deployment. Soldiers just driving drunk or driving too fast, or not wearing seat belts—and that wasn't good in so many ways. So he established a campaign and made...driver safety paramount....We had got to the point where we actually had a board flashing up at all the gates [indicating] the number of days we went without a traffic fatality. He promised the Division...four days off if we could reach...100 days without having a fatality. The Division started to embrace that target and, sure enough, we hit 100 days and, bang, he gave us four days off. The Division stood down. [He] said "I'm proud of you. Now the goal is 200"....He continued to raise the bar in everything we did.⁷⁵

More research is needed to determine whether continually raising the bar and increasing one's expectations increases ethical behaviour. Likewise, more research is needed to determine whether leaders communicating to their personnel that they have met or exceeded expectations increases the likelihood that personnel will act unethically.

Ethical Culture

Muel Kaptein⁷⁶ has indicated that the following dimensions are related to ethical behaviour in organizations: (1) clarity of rules, (2) ethical role modeling by immediate supervisors and senior leaders, (3) feasibility, (4) supportability, (5) transparency, (6) discussability, and (7) reinforcement of ethical behaviour.

Clarity of Rules

Clarity of rules means that the rules pertaining to ethical standards are specific, comprehensive, and clear.⁷⁷ According to Kaptein, ambiguous rules can encourage unethical behaviour. Having clear and specific rules may also be useful in stressful operational settings. As discussed earlier, working memory and Type 2 processing are impaired under conditions of stress, yet Type 1 processing is not impaired. Likewise, rules that support goals (e.g., the goal of being an ethical and professional soldier) that are framed in "if-then" statements can be carried out, even under conditions of stress. This is consistent with the view that ethics could be taught in a way that is consistent with the

Army's directive to "train as we intend to fight."⁷⁸ Major Warren Armstrong, a Canadian Armed Forces Personnel Selection Officer who has conducted research on the human dimensions of operations suggests focusing ethics training on the rules outlined in the *Canadian Soldiers Code of Conduct*: "...if the Canadian Soldiers Code of Conduct [Appendix 3 to *Duty with Discernment*] was slightly modified by making the 11 rules even shorter...these could be drilled, and taught as a mantra."⁷⁹

Ethical Role Modelling

Ethical role modelling refers to the extent that personnel, especially those in leadership positions, consistently use the same ethical standards across situations. In other words, do leaders and other personnel set a good example of ethical conduct? When leaders and immediate supervisors act in ways that are consistent with the organization's ethical standards and expectations, they reinforce these ethical standards. Conversely, when leaders fail to act in accordance with the organization's ethical standards, they undermine ethical behaviour. Leaders who are perceived to act unethically, therefore, create an ethical risk for their organization.

Feasibility

Feasibility refers to whether personnel believe they are actually able to act ethically in light of organizational conditions. When personnel do not believe that they have adequate time, funds, equipment, information, and influence to carry out their work-related responsibilities, they are at increased risk of acting unethically. In one study, researchers found that people were more likely to act unethically and in a self-serving manner under conditions of high time pressure than those in low pressure situations.⁸⁰

Supportability

Supportability refers to the commitment of personnel to act ethically. When personnel, including leaders, are committed to behaving ethically, and personnel feel appreciated, the organization is less at risk of personnel acting unethically. In contrast, when personnel lack commitment and are dissatisfied with their organization, there is an increased risk of unethical behaviour.⁸¹

Transparency

Transparency refers to the extent that people believe that unethical behaviour will be detected by immediate supervisors, senior leaders, fellow personnel, and others who are affected by the unethical act.

CANADA

Discussability

Discussability refers to the extent that personnel feel they can raise issues for discussion, including talking about unethical behaviour. When an organizational culture is characterized as an environment where people feel they cannot raise issues, there is an increased risk of unethical behaviour. Conversely, when people feel they can openly discuss ethical issues, the organization is less at ethical risk.

Reinforcement of Ethical Behaviour

Reinforcement of ethical behaviour refers to whether personnel are rewarded for ethical conduct and disciplined for unethical behaviour. Some individuals tend to repeat past behaviour, even if they consider the behaviour unethical⁸² or ineffective.⁸³ As a result, it is important for leaders to reinforce ethical behaviour consistently. Master Warrant Officer Shultz described how he feels it is important to recognize soldiers of all ranks:

A lot of guys, myself included, have a medal to wear on our DEU [distinctive environmental uniform]. Every time I put it on, I feel guilt because the other soldiers who were there don't have the same medal on their uniform. Not everybody gets one... I don't own the medal. I wear it on behalf of all the soldiers who fought so hard that day. Without them fighting, killing and dying, the SMV [Star of Military Valour] would have been awarded to me posthumously.

CONCLUSION AND RECOMMENDATIONS

Adaptive leaders need to understand the situational factors that influence ethical decision making to develop strategies for mitigating these factors. In particular, it is important to understand how operational stressors affect the way military personnel process information (i.e., automatic Type 1 processing not impaired by stress and Type 2 processing, which involves controlled attention but is impaired by stress). More research is needed to understand how to apply these findings in the military context. Below are recommendations that may help leaders to mitigate ethical risk; however, more research is needed to understand how to mitigate ethical risk in the military context:

1. Establish strategies to help military personnel replenish their self-control reserve because it can become depleted:
 - Maintain orderliness, particularly on operations.

- Promote proper sleeping habits.
 - Ensure that personnel are not hungry in situations where stress is high (e.g., exposure to provocation).
 - Encourage military personnel to exercise to reduce stress.
 - Encourage military personnel to practice slowing down their breathing.
2. Develop military personnel's capacity to exercise self-control by regularly having personnel engage in activities that require controlled attention, such as:
 - Ignore text while watching the news.
 - Use non-dominant hand.
 - Avoid slang, such as saying "yes" instead of "yeah".
 - Improve posture.
 3. Use "if situation *X* occurs, then do action *Y*" statements whenever possible, so that military personnel will be better prepared under stressful conditions, such as "If I witness a buddy killed in action, I will take slow deep breaths."
 4. Communicate messages that underscore the importance of striving to improve behaviour and avoid messages that communicate to military personnel that they have reached key milestones related to ethical behaviour.
 5. Expose military personnel to situations that can elicit strong emotional reactions during training, and then encourage them to practice techniques, such as breathing techniques and labelling their emotions, that will help them override impulses to act aggressively.
 6. Create the conditions that foster ethical behaviour, such as:
 - Have clear rules.
 - Ensure leaders model ethical behaviour.
 - Communicate to personnel that ethical behaviour is essential, regardless of time pressures, funds, equipment, information and their level of authority.

CANADA

- Foster commitment to the organization by seeking ways to help personnel feel more satisfied with their jobs.
 - Let personnel know that unethical behaviour will be detected and dealt with accordingly.
 - Create an open environment for discussion by encouraging personnel to raise their concerns with immediate supervisors and leaders.
 - Reward ethical behaviour and consistently punish unethical behaviour.
7. Apply the “train as we intend to fight” approach to ethics training whenever possible.

ENDNOTES

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CHAPTER 6

DEVELOPING ADAPTIVE LEADERS THROUGH CRITICAL THINKING

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INTRODUCTION

The Singapore Armed Forces (SAF) has been studying critical thinking for over half a decade. This area of research has been driven by the SAF's efforts to build decision making as a core leader skill for leaders to be adaptive.¹ The challenge facing military decision makers can be summarized as:

Time accelerates. Distance shrinks. Networks expand. Information overwhelms. Inter-dependencies grow geometrically. Uncertainty dominates. Complexity boggles the mind. Such is the environment and context within which current organizations must compete, survive, and thrive.²

From our current research efforts on critical thinking, this paper will discuss three significant findings in the area of critical thinking in the military related to developing adaptive leaders. The first significant finding is a lack of empirical evidence on successful implementation of critical thinking in military organizations. The second finding highlights the importance of embedded training for practical application of critical thinking skills so that the military student's application of critical thinking becomes a reflex reaction. The third significant finding is that even today, there is much academic debate about the validity of critical thinking tests in measuring the effectiveness of critical thinking training.³

* The views expressed in this chapter are those of the authors and do not necessarily reflect those of the Singapore Armed Forces.

SINGAPORE

MILITARY LEADERSHIP IN THE SINGAPORE ARMED FORCES

Since independence in 1965, one of the Republic of Singapore's core nation building strategies has been meritocracy. "Singapore's founding leaders emphasised the need for citizens to work together to create a vibrant, just and equal society, through achieving excellence by all, so that every citizen, regardless of race, language or religion, can enjoy a full and happy life."⁴ All these core concepts have evolved and continue in the SAF. As a conscript military force, the SAF has been able to attract and retain high quality personnel as Commissioned and non-Commissioned Officers. Other volunteer military organizations may not attract the same types of people due to competing opportunities.

Every Singaporean male citizen is called up for National Service upon turning 18 years of age. In the SAF, recruits undergo Basic Military Training (BMT) which provides them with soldiering skills such as weapon handling, individual field craft and core military tactics. The training is designed to ensure our recruits' survivability on the battlefield. Using meritocracy, our newly trained recruits who performed well in BMT are selected for Command Schools at either the Specialist Cadet School or Officer Cadet School. Successful graduates from the Command Schools will then serve as Unit Commanders in active units followed by service in the Reserve Units until the age of 40 for non-Commissioned Officers or 50 for Commissioned Officers. Throughout their military careers, SAF leaders continue to receive development in the latest theories of both leadership and warfare. Often they work and train closely with other militaries in both the region and throughout the world. Developing both training and evaluation programs for our leaders so that they operate effectively in volatile, unpredictable, complex and ambiguous operating environments is critical to our national and regional security.

IMPETUS FOR DEVELOPING ADAPTIVE LEADERS WITH CRITICAL THINKING SKILLS

The ultimate measure of a military leader's training is the successful application of their skills on the battlefield. From World War II, both General George Patton and Field Marshal Bernard Montgomery⁵ were well known for their dedication to studying their profession. Both leaders had an exceptional ability to compete, survive and thrive in combat. These leaders spent many hours researching the battles of their predecessors throughout history. For

Patton and Montgomery, their astute study of war enabled them to gain an advantage over the enemy when manoeuvring their soldiers to victory. History has viewed both military leaders and their training as successful because of their decisive triumphs on the field of battle.

A struggle in peacetime for many military educational institutions is measuring the effectiveness of their leadership training in preparation for future conflicts. Often our peacetime military training measurement tools do not effectively evaluate practical application of military leadership skills. Many veteran practitioners of war would argue the application of these military leadership skills taught in peacetime could greatly differ when applied in combat or in volatile operating environments. This is especially true for military leaders making decisions in the face of complexity and unpredictability.

A classic historical case of this can be seen in the military failure from the 7th United States Calvary at the Battle for Little Big Horn in 1876. Two weeks prior to the Battle for Little Big Horn, U.S. Army General George Crook encountered an unusual enemy strategy at the Battle of Rosebud.⁶ The Sioux, Lakota and Cheyenne tribes remained engaged in battle at Rosebud instead of their traditional hit and run tactics of the past. Although incurring troops losses, General Crook did not see the significance of this engagement by his opposing forces. The new information about the enemy's latest battle strategies were never forwarded to the other 7th U.S. Calvary military leaders. Many historians would argue the inability of General Crook to see the significance of this strategic information and having it shared led to the annihilation of five of the 7th U.S. Calvary's companies, and the death of General George Custer at the Battle of Little Big Horn.

Moving forward in time, a similar poor military decision occurred in 1990 at the Battle of Khafji during the first Gulf War. U.S. military forces knew well in advance the movements of Iraq mechanized and armoured tanks toward the town of Khafji in Saudi Arabia. Hours before the ground battle, the Marine Corps had a squadron of F-18 Hornet jet fighters flying toward another target of potentially lesser strategic urgency. Although the F-18 jet fighters had the correct ordinance to destroy the Iraqi forces moving toward Khafji, the Commander in the Marine Corp Tactical Air Command Centre (TACC) did not re-route the F-18 jet fighters. The end result was the loss of 43 coalition forces dead, and 52 wounded in a ground battle at Khafji that could have been averted by the TACC Commander.

Similar to General Crook 114 years earlier, the Marine Corps TACC Commander had important enemy battle information, but failed to draw new

SINGAPORE

insights to make the right decision. As with Crook, the result was the loss of lives to the enemy in a potentially avoidable combat situation. These poor decisions in volatile, unpredictable, complex and ambiguous operating environments are the horror of both military commanders and political leaders. Over the past decade, many militaries have been focused on building adaptive leaders in an effort to ensure the mistakes of Little Big Horn and Khafji are not repeated. Adaptive Leaders are leaders who can adopt a different orientation towards thinking in the face of complexity and unpredictability to make correct and timely decisions that are effective and aligned to the command and mission. Adaptive leaders go through a continual process of challenge, adaptation and learning, which readies them for the next challenge.

For the SAF, critical thinking is a leadership skill for the development of our adaptive leaders to better challenge, adapt and learn at both the individual and team levels. Our military leaders are expected to make sense out of chaos, solve problems and respond to challenges with innovative solutions. SAF leaders are expected to think critically for effective decision making in a complex and dynamic environment. Similar to many other advanced armed forces around the globe, the SAF has identified critical thinking, intertwined with creative thinking and ethical reasoning, as part of the cognitive competency⁷ that enable SAF leaders to effectively accomplish their missions in any time and place.

LEADING CRITICAL THINKING MODELS

Over the past several decades, the definition of critical thinking has varied from researcher to researcher.⁸ For our research purposes, a current academic perspective defines critical thinking as:

The use of those cognitive skills or strategies that increase the probability of a desirable outcome. It is used to describe thinking that is purposeful, reasoned, and goal directed—the kind of thinking involved in solving problems, formulating inferences, calculating likelihoods, and making decisions, when the thinker is using skills that are thoughtful and effective for the particular context and type of thinking task.⁹

Outside of the military, the demand for critical thinking education and training has grown considerably in recent years. In 2010, the Association of American Colleges and Universities published the results of a critical thinking assessment with a survey size of 300 U.S. employers. Survey respondents identified that 33% of their new employees lacked the skills needed for entry

level positions, and 31% of new employees lacked the critical thinking skills necessary for employment. Of the 300 employers, 81% requested more critical thinking instruction for their existing labour force.¹⁰ These findings are also consistent with the growing calls among higher academic institutions in Singapore to strengthen critical training education and practice, as evidenced in recent newspaper and media reports in 2012 and 2013.

The demand for critical thinking skills has created a “growth industry”¹¹ in both academia and the private sector. Many private sector training entities have created critical thinking educational programs and developed critical thinking literature for governments and private institutions. This has empowered some in the “industry” to target their training materials for specific groups, and to adjust the presentation of information for easier student comprehension in these groups.¹² Our current research on critical thinking discovered that there is no consensus on the definition of critical thinking, nor a consensus on the best method for delivering critical thinking training to students.¹³

Our research of the critical thinking body of knowledge identified five leading critical thinking models.

1. The Paul-Elder Model.
2. The Collegiate Learning Assessment Model of Critical Thinking.
3. The American Philosophical Association Delphi report Model of Critical Thinking.
4. Peter Facione Think Teaching Model.
5. Halpern Learning to Think Critically: A Four-Part Model.

These critical thinking teaching models have the fewest identified issues and are commonly referenced within the last five years in academic journals. Questions do arise about the validity of each model in successfully teaching students critical thinking skills and the student’s ability to apply the skills outside of the classroom. Within the critical thinking body of knowledge we were unable to identify empirical evidence that any of these models have been successfully implemented in military organizations. Our definition of successful implementation is the student’s ability to apply their critical thinking as part of their daily problem analysis in their operational environments.

THE PAUL-ELDER MODEL OF CRITICAL THINKING

The Paul-Elder Model of Critical Thinking has become a significant player in the critical thinking “growth industry.” It has been adopted by many institutions, most notably the United States Army Command and General Staff College, United States Army Management Staff College, as well as many universities, colleges and government institutions in North America. The model and the work done at the Foundation for Critical Thinking have been well received by educators, as they describe the material as easy to teach to their students.¹⁴

The Paul-Elder Model of Critical Thinking comprises three components:

1. Intellectual Standards are the standards which are to be applied to thinking in order to make it, or determine whether it is, Critical Thinking.
2. Elements of Reasoning are eight “building blocks” of reasoning present in all instances of thinking or reasoning.
3. Intellectual Traits are desired traits characteristic of a good critical thinker. They are the “end-product,” gradually acquired by a thinker as a result of consistent application of intellectual standards to elements of thought.¹⁵

Sadler’s analysis of the Paul-Elder Model provided some insight into identified flaws in the model.¹⁶ The model does not clarify Intellectual Standards, Elements of Reasoning, and Intellectual Traits. Determining what each of these is supposed to be in specific contexts is up to those applying the model.¹⁷ Some of the terms in the model are vague. The Paul-Elder Model also leaves out argument. Sadler states that argument is the most salient and typical concepts of critical thinking.¹⁸ Other researchers debate that the advocates of Paul-Elder Model view argument not as a traditional win-lose, but as a compromise between parties who seek consensus on issues in an intellectual debate.

Paul Elder’s Model often uses affective dispositions of critical thinking to assess student outcomes, not their cognitive skills of critical thinking.¹⁹ Research has shown that these tests do not validate the student’s ability in applying critical thinking.²⁰ The lack of reported critical thinking application testing in academic journals for the Paul-Elder Model of Critical Thinking makes it difficult to assess the model’s effectiveness.

THE COLLEGIATE LEARNING ASSESSMENT MODEL OF CRITICAL THINKING

The Collegiate Learning Assessment provides tools usable in many contexts for “authentic” assessment of student learning, indexed to a set of key skills.²¹ The model uses tasks for the students to learn and build their critical thinking skills. “A Performance Task comprises a scenario in which a student must make and justify a decision.”²² In an example of a task, students are given a set of seven documents. Based on a certain topic, the seven documents deliberately contain a mix of misleading, irrelevant, incomplete and accurate information. During the student task scenario, the students review the documents assessing the arguments each document provides.²³ The students then formulate an organized written response and argue using the evidence.²⁴

Course instructors use a grading rubric to evaluate the student’s work.²⁵ In the grading rubric, students are evaluated on analytic reasoning and evaluation, problem solving and persuasive writing.²⁶ For the persuasive writing, students are expected to use the relevant evidence from their exercises. Examples to support their arguments are also required to be from cited sources.²⁷ All ideas and arguments must be organized and logically cohesive, and address all elements of the task.²⁸

Instruction on the Collegiate Learning Assessment is expected to be delivered by experts in critical thinking. Programming is designed for university level teaching over a semester, with the requirement for instructors to be at an expert level. This teaching program has remained mainly in university environments.

THE AMERICAN PHILOSOPHICAL ASSOCIATION DELPHI REPORT ON CRITICAL THINKING

In 1990, the American Philosophical Association (APA) conducted a research study using the Delphi method to determine the definition of critical thinking. The definition included the core cognitive skills based on the consensus of experts and leading scholars in critical thinking. The APA Delphi Report defined critical thinking as “the process of purposeful, self-regulatory judgement which results in interpretation, analysis, evaluation, and inference, as well as explanation of the evidential, conceptual, methodological, criteria-based, or contextual considerations upon which that judgement is based.”²⁹

SINGAPORE

The APA Delphi report stressed three key points:

1. Critical thinking is a holistic and pervasive phenomenon transcending specific disciplines or domains.
2. Critical thinking should not be simplistically conflated with all or other modes of thinking.
3. Developing and applying critical thinking involves an interaction with context provided by domain-specific knowledge.³⁰

For critical thinking interpretation, the APA Delphi report distinguished six skill categories: Analysis, Evaluation, Inference, Interpretation, Explanation and Self-Regulation.³¹ Within each skill category, several sub-skills are also distinguished as defined in Table 1.

Interpretation	Categorization
	Decoding Significance
	Clarifying Meaning
Analysis	Examining Ideas
	Identifying Arguments
	Analyzing Arguments
Evaluation	Assessing Claims
	Assessing Arguments
	Assessing Information Sources
Inference	Querying Evidence
	Conjecturing Alternatives
	Drawing Conclusions
Explanation	Stating Results
	Justifying Procedures
	Presenting Arguments
Self-Regulation	Self-examination
	Self-correction

Table 6.1: American Philosophical Association Delphi Categories for Critical Thinking Interpretation³²

“Each of the critical thinking sub-skills designates a set of specific teachable and assessable activities which comprise an element of critical thinking.”³³ In the American Philosophical Association Delphi Model, the skills can be interconnected, but might not be all used for each examination or analysis of a problem. The American Philosophical Association Delphi Model also takes into account that critical thinking involves moral valuations, and is not exclusively an intellectual or cognitive process.³⁴

The panel for the American Philosophical Association Delphi Model argued that it requires a lot of staff training to educate the trainers about the model.³⁵ It also outlines that critical thinking cannot successfully be delivered to students in one or more courses.³⁶ Programming is integrated into the core curriculum to provide students with practical application.³⁷ Sadler also recommends that regular testing of student’s critical thinking skill sets should occur to identify problems in any of the teaching model elements.

PETER FACIONE THINK TEACHING MODEL

The Facione group has been working closely with the United States Air Force and the United States Air Force Academy on critical thinking. Similar to other programs, the Peter Facione Think Teaching Model pulls information from several different sources. Their concept is to present information in a method that is easily understood by the student. The Facione Model uses acronyms to assist the student in remembering their critical thinking materials. Facione’s work is targeted toward first year university students with emphasis on argument analysis. It uses diagram decisions, and also places emphasis on traditional Greek logic throughout the critical thinking program. For testing student’s critical thinking skill sets, the programs often use the California Critical Disposition Inventory or the California Critical Thinking Skills Test.

In Facione’s most recent book, *THINK Critically*,³⁸ the researcher uses videos from American culture and American movies to help explain critical thinking in real world application. The videos are accessed online by the student through Facione’s company website. A specific example of a video reference is from the movie *Apollo 13*, where the spacecraft experiences an explosion and the astronauts and National Aeronautics and Space Administration (NASA) support staff use critical thinking to diagnose the problem.

Facione’s model of teaching critical thinking also has strong references to American democratic policies, which may be inappropriate for use with

SINGAPORE

other audiences. A few of the references also use strong vulgar language from comedian George Carlin. Facione incorporates these components into his teaching as an example for students to look beyond vulgar language while analyzing arguments. Positively, Facione has worked with the U.S. military, and some of his sample problems might be applicable to other military organizations outside of the United States. Although Facione's work is easy to understand for their target market of American first year university students, many of the non-video based concepts are not memorable. Heavy references to American culture may not be easily transferable to other countries.

HALPERN LEARNING TO THINK CRITICALLY: A FOUR-PART MODEL

Halpern's approach to applying her Critical Thinking Model for teaching is to use a scientific method for evaluating the student's learning success. Students are given a critical thinking test based on 25 real world scenarios prior to instruction. The Halpern Critical Thinking Assessment (HCTA) evaluates the student's practical application of critical thinking.³⁹ Upon completion of the course, students are then tested again with an additional 25 real world scenarios.

Independent validity testing of the HCTA has occurred using student behavioural inventory of life events. The test's validation hypothesis was that if students reported fewer negative life events they would score higher on the HCTA for critical thinking practical application. Students with higher negative life events should score lower on the HCTA for their ability to apply critical thinking. Butler's validation study did find a relationship between student scores on the HCTA and their real-world outcomes in a wide range of domains, such as education, health, law finance and interpersonal relationships.⁴⁰

The published academic research from Halpern's group has shown their teaching model and testing to be applicable in many different student education levels, cross cultural and languages. Published studies report students from secondary school to university successfully demonstrating the application of critical thinking skills and problem solving using Halpern's model.⁴¹ With minor changes to the scenarios to reflect local cultures, successful application of the HCTA has been applied in Mexico, Spain, Portugal, Belgium, People's Republic of China, Poland and Vietnam.⁴²

In Halpern's model, the Critical Thinking Skills are sorted under the following five rubric categories:⁴³

1. **Verbal Reasoning:** The skills listed under this rubric include those skills that are needed to comprehend and defend against the persuasive techniques that are embedded in everyday language (also known as natural language). Thinking and language are closely tied constructs, and the skills included in this category recognize the reciprocal relationship between language and thought in which an individual's thoughts determine the language used to express them, and the language that is used shapes the thoughts.
2. **Argument Analysis:** An argument is a set of statements with at least one conclusion and one reason that supports the conclusion. In real life settings, arguments are complex with reasons that run counter to the conclusion, stated and unstated assumptions, irrelevant information, and intermediate steps between the conclusions and the evidence that supports them.
3. **Hypothesis Testing:** The rationale for this category is that much of our day-to-day thinking is like the scientific method of hypothesis testing. In many of our everyday interactions, people function like intuitive scientists in order to explain, predict and control the events in their life.
4. **Likelihood and Uncertainty:** Because very few events in life can be known with certainty, the correct use of probability and likelihood plays a critical role in almost every decision. The critical thinking skills that are subsumed under this heading are an important dimension of higher order thinking.
5. **Decision Making and Problem Solving:** In some sense, all of the critical thinking skills are used to make decisions and solve problems, but the skills that are included in this category involve the use of multiple problem statements to define the problem and identify possible goals, the generation and selection of alternatives, and the use of explicit criteria to judge among alternatives.

Under Halpern's rubric, not all of the skills will be applied to analyze the stimulus, and the critical thinker's expertise and experience will determine which skills are to be applied to get the desirable outcome. The critical thinking skills themselves have been developed over centuries, and this is a primary subject matter that is taught to students in most critical thinking courses.

The next phase in Halpern's schematic is Metacognitive Monitoring. Paul-Elder's teachings describe this element as "thinking about thinking," and

SINGAPORE

is where the critical thinking body of knowledge sees many different interpretations and application.⁴⁴ Once the Metacognitive Monitoring occurs, the critical thinker evaluates if the outcome from applying their Critical Thinking Skills to analyze the stimulus is good enough. The Metacognitive Process as described by Halpern is the “boss” function and it “monitors your thinking process, checks whether progress is being made towards an appropriate goal, ensures accuracy, and makes decisions about use of time and mental effort.”⁴⁵ If the Metacognitive Monitoring identifies a problem with the application of the Critical Thinking Skills, the process is repeated until the desirable outcome occurs.

As with the other models, there is no empirical evidence of Halpern’s model being successfully implemented in a military organization. Our research was also unable to identify any militaries applying the Halpern Learning to Think Critically: A Four-Part Model for military student critical thinking practical application testing. Validation of both Halpern’s teaching methodology and the student’s critical thinking practical application has occurred at only the student level, and not an organizational level. Within the last five years, academic publications discussing both the Halpern Learning to Think Critically: A Four-Part Model and the HCTA were the most frequently discussed models in academic publications out of the four models identified in our research.

INSIGHTS ON CRITICAL THINKING IMPLEMENTATION IN OTHER MILITARIES

UNITED STATES ARMY

The academic journals reflect the United States Army as implementing critical thinking in their leadership since 1982. The U.S Army’s first efforts were focused on thinking during uncertainty to improve the decision-making skills of the modern soldier. These efforts later evolved to traditional critical thinking taught at the Command and General Staff College and the U.S. Army Management Staff College.⁴⁶ “The Army’s perspective of critical thinking draws heavily on the works of scholars in academia. Notably among these scholars are Richard Paul and Linda Elder of the Foundation for Critical Thinking. Their works feature prominently in Command and General Staff College and Army Management Staff College curriculums on critical thinking.”⁴⁷

Prior to using the Paul Elder models, the U.S. Army Management Staff College used the models of Brookfield,⁴⁸ Rubinstein and Firstenberg⁴⁹ and Walters.⁵⁰ A struggle for the U.S. Army in their critical thinking program was

moving away from “check-list thinking or doctrine playback, instead of real thinking and analysis.”⁵¹ Through much trial and error, the Army Management Staff College standardized their critical thinking educational program on Dr. Richard Paul’s synthesis of critical thinking because in their previously theoretical frameworks, critical thinking models and tools were difficult for students to comprehend.

Williams discussed a problem observed in the U.S. Army: “put ten Army leaders together, and few are able to provide an effective defence of their views or to challenge the views of their peers with more than a personal opinion.”⁵² Other significant critical thinking lessons learned from the U.S. Army were, “critical thinking can’t just be switched on...to suddenly change the student’s thinking habits, therefore, we have to provide students an environment where thinking skills can be learned, and then practiced in realistic situations that are otherwise safe and supportive.”⁵³ The U.S. Army Management Staff College also discovered that providing students with realistic situations greatly improved program delivery success as the students could understand how the material should be applied in real world settings.

Another key strategy was to have students become responsible for developing their own critical thinking skills through course work application. This individual responsibility was accomplished by integrating critical thinking as a core requirement for how students analyze and complete their assignments at the college. Instructors evaluated all of the student’s academic papers and projects looking for the student’s application of critical thinking.

UNITED STATES AIR FORCE ACADEMY

The U.S. Air Force Academy has taken a philosophy where they are focused on developing warrior intellectuals and educated citizens. “Critical thinking lies at the heart of intellectual activity and is a component of this student development.”⁵⁴ From the Air Force’s experience, “critical thinking takes years to develop because of a higher level thought process for students to change the way they think and evaluate information.”⁵⁵ Examples of critical thinking skills would be the development of argument analysis, distinguishing between correlation and cause and effect, identification of stereotypes as well as the influence of mental models, and understanding the long-term consequences of decisions. Graduating cadets are expected to have developed their critical thinking skills “enabling them to assess information, make decisions, solve ill-defined problems, and construct persuasive arguments in their role as military officers and educated citizens.”⁵⁶

SINGAPORE

The academy has taken an approach of both explicit and embedded training for their cadet's critical thinking. Explicit instruction is where specific skills are taught.⁵⁷ Embedded instruction is where instruction is deliberately inserted into the regular activities of the students.⁵⁸ Cadets are gradually taught critical thinking skills in the classroom, but every facet of their lives at the academy expects the cadets to use critical thinking. From the academy's experience, this embedded approach provides the cadets with opportunity to use the critical thinking, and become more expert in the application of the skills.

CRITICAL THINKING IN THE MILITARY CONTEXT

In the military, due to the high volatility of the working environment, much of the training is focused on repetition. The emphasis is to turn the training into a reflex. When warriors are under environmental stress, they react to the stimulus with their training as if it were a reflex response. For both the U.S. Army Management Staff College and the U. S. Air Force Academy, giving their students constant repetition using and practicing their critical thinking skills in all aspects of the educational programs provides the student's with needed critical thinking experience. The goal is to have their students naturally evaluate complex problems with critical thinking regardless of environmental stress.

RICHARD KING AND THE AUSTRALIAN DEFENCE FORCES

Richard King's research with the Australian Defence Force discusses organizational resistance to critical thinking. This resistance makes implementation of critical thinking in a real world environment difficult.⁵⁹ As with many researchers, King's experience has shown that it takes time to change or improve the thinking in organizations. King describes his solution to these obstacles as "Interventions to Improve Thinking," which consists of a feedback-reviewing loop, coaching and mentoring.⁶⁰ Success of these employee interventions requires a forward focus with emphasis on mentoring, and on individual growth and development. To improve thinking at the individual level, King recommends targeted tailored training for employees. Employees also receive one-on-one coaching, with emphasis toward ongoing professional development. The organization can improve thinking by using process modelling and continuous improvement.⁶¹

CRITICAL THINKING MEASUREMENT AND VALIDATION

Our research identified a significant recurring problem with many of the leading critical thinking programs. Very few programs evaluate the student's practical application of critical thinking skills. While the various critical thinking tests purportedly exist to measure the students' ability to think critically, the practical utility of these tests in the context of organizational use immediately becomes questionable.⁶² Within the more popular critical thinking training programs, evaluation of student's critical thinking skills occurs not through practical application, but more often relies on the student's recognition or memory recall of critical thinking skills.⁶³ For ease of grading, most of these tests rely on multiple choice questions.

HALPERN CRITICAL THINKING ASSESSMENT

A relatively new entry into critical thinking evaluation testing that focuses on the student's practical application of critical thinking is the Halpern Critical Thinking Assessment (HCTA). In recent years the empirical body of knowledge supporting the validity of the HCTA has grown in significance both in its ability to assess student's practical application of critical thinking skills, and successful cross cultural/languages implementation. Unlike the other dominant critical thinking tests, the HCTA uses two response formats, constructed response and forced choice response.⁶⁴ The constructed response requires the student to solve a real world scenario providing the student's demonstration of practical application. Unlike many of the other critical thinking tests, students are required to respond without any guidance from predefined multiple choice questions.

In addition to the use of testing focused on the student's practical application of critical thinking skills, Halpern's program has used a strict adherence to a scientific method for evaluation of the student's application of critical thinking. Adopting a scientific method design strategy has enabled Halpern to publish her team's research findings often, providing a legacy of empirical evidence in support of their critical thinking teaching, and validation approach. Unlike the other critical thinking measurement tools, and critical thinking teaching models, Halpern's research efforts have not yielded significant counter arguments.

CRITICAL THINKING PROGRAM FOR THE SINGAPORE ARMED FORCES

Many of the organizations and researchers promoting their critical thinking models have internalized their research or focused their efforts toward their specific clients. This becomes a problem for model evaluation, as it often does not enable the academic community to challenge the research providing outside confirmation or rejection of findings. For some of the critical thinking programs identified in our research, there does not appear to be any validation of the actual implementation of critical thinking at an organizational level.

For all SAF training, we focus on results-driven programs with measurable results. Program level evaluation and validation is important to our critical thinking design. We look at how the teaching of specific critical thinking skills can transfer into immediate application for our leaders in their real world environments. Based on other successful training programs, we also evaluate critical thinking training materials to determine if they are remembered by the students. Our aim is to use elements from the leading critical thinking programs that will fit best into our operational environment. We are focused on the use of both explicit and embedded training for our program delivery. Similar to both the U.S. Army and U.S. Air Force Academy, the embedded critical thinking training will provide students with opportunities to apply their critical thinking skills throughout their educational program to gain experience. We recognize the need to provide students an environment where thinking skills can be learned, and then practiced in realistic situations that are safe and supportive.

Halpern's approach of using the scientific method with an emphasis on understanding cause and effect is also an attractive strategy for program design. The use of the scientific method enables us to quickly identify any shortfalls in our student's explicit critical thinking courses. Any identified training shortfalls can then be corrected or enhanced in the embedded training as the officer progresses through the rest of their leadership program course work.

CONCLUSION

Critical thinking is one of many significant leadership skills we desire for our military leaders to be adaptive in volatile, unpredictable, complex and ambiguous operating environments. Our current efforts in developing adaptive leaders have received much positive feedback in real world applications. Our

troops will be put in harm's way as part of peacekeeping missions or humanitarian missions. Once they are placed in harm's way, the real test of the officer's leadership skills comes to light. These real world operations provide our leaders with important experiential opportunities to create order out of chaos, solve problems, and respond to challenges with innovative solutions.

In the past, our military leaders have worked well with other nations as part of global efforts. During a recent effort to stop piracy in the Gulf of Aden, our young officers were able to take the lead in locating an illegally seized cargo ship during a joint effort with other coalition members. Through much diligence to interpret operational information correctly and through dialogue with the other military forces, our officers were able to redirect foreign forces, which led to the successful recovery of a stolen cargo container ship. For the SAF, it was a validation that our strategy of results-driven leadership programs with accountability and measurable outcomes are working.

As we expand our implementation of critical thinking into our core leadership training programs, we will focus on ensuring the solution is measured to validate its effectiveness, and integration with our existing training programs. Using a scientific method for both implementation and evaluation will provide us with vital empirical results. This implementation strategy will also provide Singapore with the empirical evidence currently missing in academic journals on the success of implementing critical thinking in a military organization.

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CHAPTER 7

LEADING IN UNCERTAINTY, UNPREDICTABILITY AND VOLATILITY

Bill Bentley, PhD

*Lieutenant-Colonel Dave Buchanan**

INTRODUCTION

ADAPTABLE: ABLE TO ADJUST TO NEW CONDITIONS

Leading in the security environment of the 21st century calls for a degree of adaptability seldom required in the Cold War period. The highly dangerous, yet relatively stable dynamics of the US/Soviet confrontation permitted a leader development system that privileged linear thinking, slowly evolving doctrine, and a focus on preparing almost solely for high intensity combat. It is widely acknowledged today that the new reality is characterized as never before by conditions best explored through Complexity Theory and Systems Theory.¹ This calls for a virtual paradigm shift in leader development systems able to prepare military professionals for the current and future national security operating environment.

This chapter will first describe and explain complex systems. It will indicate why it is necessary to address war and conflict as a particular kind of complex system; that is, a complex adaptive system (CAS). As will be shown, such systems can only be effectively understood and acted upon using systems theory and its corollary, system thinking. Once this foundation is set, the chapter will outline the new Canadian Armed Forces (CAF) approach to leader development, an approach based on the Leader Development Framework (LDF). One of the many outputs expected by using the LDF is a military professional able to adapt quickly and effectively to the uncertainty, unpredictability and volatility inherent in 21st century operations.

* The views expressed in this chapter are those of the authors and do not necessarily reflect those of the Canadian Department of National Defence or the Canadian Armed Forces.

COMPLEXITY THEORY AND SYSTEMS THEORY

Complex systems are both interactive and non-linear. For a system to be linear it must meet two simple conditions. The first is proportionality: changes in system outputs are proportional to system inputs. Such systems display what in economics is called “constant returns to scale,” implying that small causes produce small effects and large causes generate large effects. The second condition of linearity, called additivity, underlies the process of analysis of such systems. The central concept is that the whole is equal to the sum of the parts. This allows the problem to be broken into smaller pieces that, once solved, can be added back together to obtain the solution to the original problem.

Non-linear systems, that is to say, complex systems, are those that disobey proportionality and additivity. Interactive complexity is based on the behaviour of the parts and the resulting interactions between them. The greater the freedom of action of each individual part and the more linkages among the components, the greater is the system’s interactive complexity. Interactively complex systems are also highly sensitive to inputs; immeasurably small inputs can generate disproportionately large effects. Equally important, with interactive complexity it is often impossible to isolate individual causes and their effects since the parts are all connected in a complex web. Interactive complexity produces fundamentally unpredictable and even counterintuitive behaviour. Such systems must be viewed holistically – the whole is greater than the sum of the parts. These systems cannot be properly investigated using analytical techniques; rather, they require system thinking to achieve a full understanding of their dynamics and behaviour.

Complex adaptive systems constitute a special case of complex systems. They are capable of changing and learning from experience. Complexity theorist John Holland defines a complex adaptive system in a social, political or organizational context as a dynamic network of many agents acting in parallel, constantly acting and reacting to what the other agents are doing. Such systems exhibit coherence under change via conditional action and anticipation and they do so without central direction.² Since the control of a complex adaptive system tends to be highly dispersed and decentralized, any coherent behaviour in the system arises from competition and cooperation among the agents themselves. It is the accumulation of all of the individual decisions taken by the multitude of agents that produces the overall behaviour of the system.

The concept of a complex adaptive system is actually a very broad meta-subject. However, at its core is a single idea: the concept of an adaptive whole, a system that will contain sub-systems, while itself being capable of acting as a sub-system of a yet wider system. Such a whole may be able to survive in a changing environment which is delivering shocks to it, if it has available both processes of communication and a repertoire of responses which can enable it to adapt to its changing circumstances. The general model of this kind of organized complexity is that there exists a hierarchy of levels of organization each more complex than the one below. The higher level is characterized by emergent properties that do not exist at the lower level. Indeed, more than the fact that they do not exist at the lower level, emergent properties are meaningless in the language appropriate to the lower level.

In response to this complex phenomenon of hierarchy and emergence, a specialized theory — hierarchy theory — has been developed. It is the discipline concerned with the fundamental differences between one level of complexity and another in a given system. Its ultimate aim is to provide both an account of the relationship between different levels and how observed hierarchies come to be formed, what generates the levels and how emergence occurs.³ These hierarchies are characterized by processes of control operating at the interface between levels. In a hierarchy of systems, maintenance of the hierarchy will entail a set of processes in which there is a flow of information for purposes of regulation and/or control. All control processes depend on communication, upon a flow of information in the form of instructions or constraints, a flow which may be automatic or manual.

A complex adaptive system acquires information about its environment and its own interaction with that environment. It identifies regularities in that information, condensing these regularities into a kind of “schema” or model, and acts in the real world on the basis of that “schema.” Jamshid Gharajedaghi refers to such systems, specifically with regard to human activity systems, as purposeful, multi-minded, socio-cultural systems, a depiction very reminiscent of Carl von Clausewitz’s conception of war as a socio-political system.⁴

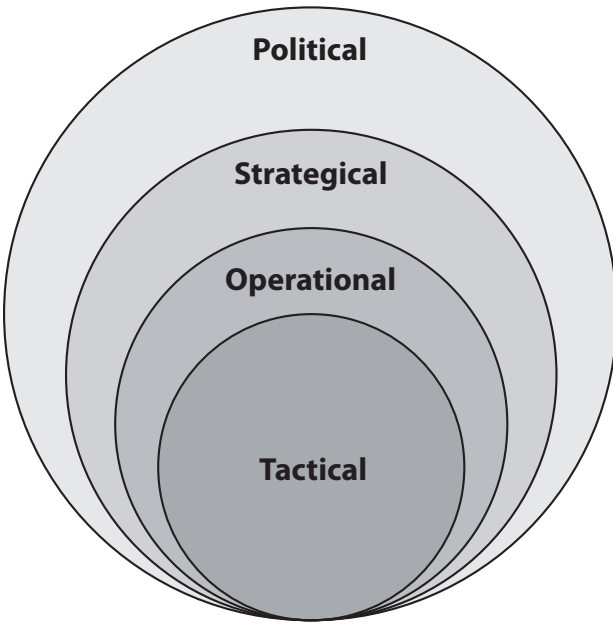
WAR, CONFLICT AND SYSTEMS THEORY

Figure 7.1. The General System of War and Conflict

War and conflict are most usefully viewed as a complex adaptive system — the General System of War and Conflict (Figure 7.1). This meta-system comprises a hierarchy of systems ascending from the tactical to the operational to the strategic and finally to the policy or political level. There are numerous actors interacting at every level in the hierarchy of the overall system, and the number of major actors and other important factors increases as one moves up the system. At the same time, each level interacts with the others, directly or indirectly, thus increasing the complexity even further. As one rises through the system, emergent properties are identified. For example, the emergence of manoeuvre at the operational level being a function of mass and mobility, as opposed to fire and movement at the tactical level of the hierarchy.

Reductionism and analysis are not as useful with interactively complex systems because they lose sight of the dynamics among components. The study of interactively complex systems must be systemic, rather than re-

ductionist, and qualitative rather than quantitative. This study needs to use different heuristic approaches, like modelling-design, rather than analytical problem-solving.

It is, therefore, extremely important to recognize the distinct differences between analytical thinking and systems thinking. Analysis is a three step process. First, it takes apart that which it seeks to understand. Then it attempts to explain the behaviour of the parts taken separately. Finally, it tries to aggregate understanding of the parts into an explanation of the whole. Systems thinking uses a different process. It puts the system as a whole in the context of the larger environment of which it is a part and studies the role it plays in the larger whole.

The analytical approach has remained essentially intact for nearly four hundred years. Systems thinking has already gone through three distinct generations of change. The first generation of systems thinking (operations research) dealt with the challenges of interdependency in the context of mechanical (deterministic) systems. The second generation of systems thinking (cybernetics) dealt with the dual challenges of interdependency and self-organization (neg-entropy) in the context of living systems (ecology, for example). The third generation of systems thinking (design) responds to the triple challenge of interdependency, self-organization and choice in the context of socio-cultural systems.

Systems thinking is the practice of thinking that takes a holistic view of complex events or phenomena seemingly caused by a myriad of isolated, independent and usually unpredictable forces or factors. Systems thinking views all events and phenomena as “wholes” interacting according to systems principles. These principles underlie vastly different events and phenomena. Systems thinking recognizes that systems (organized wholes) ranging from soap bubbles to galaxies, ant colonies to nations, can be better understood only when their wholeness (identity and structural integrity) is maintained, thus permitting the study of the whole instead of the properties of their components. As a modelling language, systems thinking illustrates cause and effect relationships that cannot be adequately explained by the subject-verb-object constructions of natural languages like English.

As with the concept of a complex adaptive system, system thinking is a meta-subject. It is employed using specific systems thinking methodologies like those advocated by systems theorists such as Barry Richmond, Russell Ackoff and Jamshid Gharajedaghi.⁵ A particularly useful methodology is Soft Systems Methodology (SSM) developed by Professor Peter Checkland and his

CANADA

colleagues at the University of Manchester in the U.K.⁶ Each of these various methodologies, but especially SSM, have contributed to the varieties of systemic operational design studied in the U.S., U.K. and Australian militaries.

THE LEADER DEVELOPMENT FRAMEWORK AND ADAPTABILITY

In the CAF, professional development takes place through a combination of four pillars — education, training, experience and self-development. In the Canadian context, the old leader development methodology called the Canadian Forces Individual Training and Education System (CFITES) was considered too linear, reductionist and tactical to adequately prepare adaptable leaders, especially at the operational and strategic levels. That is to say, this older system was not at all informed by the disciplines of complexity theory and systems theory. The center of gravity of the CFITES approach was training to the detriment of education. It was tasked-based rather than competency-based.

As educators and trainers in the CAF increasingly acquired an understanding and appreciation for complexity theory and systems theory, a new methodology has been introduced. This methodology is competency-based and intended to address the significantly more complex leadership challenges of the operational artist and the military strategist. This Leader Development Framework explicitly covers the four levels of the General System of War and Conflict — tactical, operational, strategic and political. Leaders are progressively developed across five meta-competencies denoted as Expertise, Cognitive Capacities, Social Capacities, Change Capacities and Professional Ideology. Development takes place in accordance with the CAF Professional Development Model through the appropriate balance among education, training, experience and self-development. The LDF is depicted below (Figure 7.2).

Professional Leaders					
	Expertise	Cognitive Capacities	Social Capacities	Change Capacities	Professional Ideology
Senior	Pol-Strat	Systems	Partnering	Paradigm Shifting	Stewardship
Advanced					
Intermediate					
Junior	Tactical	Analytical	Interpersonal	Open	Internalize

Figure 7.2. The Leader Development Framework

CAF Competencies

(Reflecting the 5 LDF Meta-competencies)

Expertise	Cognitive Capacities	Social Capacities	Change Capacities	Professional Ideology
Visioning	Analytical/ Systems Thinking	Communicating	Developing Self and Others	Commitment to Military Ethos
Organizational Awareness	Creativity	Interpersonal Relations	Behavioural Flexibility	Credibility and Impact
Planning and Organizing/Management		Teamwork	Stress Tolerance and Resiliency	Action Orientation and Initiative
Professional Proficiency		Partnering		Moral Reasoning

Figure 7.3. Competencies within the Leader Development Framework

CANADA

Each of the meta-competencies is further broken down into discrete competencies (Figure 7.3).

For each competency, a range of Behavioural Indicators (BI) have been developed in ascending order from the tactical to the operational to the strategic; and, finally, to the politico-strategic level. These BIs apply to the ranks of officers as follows: Lieutenant/Captain – tactical; Major/Lieutenant-Colonel – operational; Colonel – strategic; and, General/Flag Officers – politico-strategic. A similar Leader Development Framework has been developed for Non-commissioned Officers (NCO).

Although development of officers and NCOs across all meta-competencies and associated competencies contribute in one way or another to developing “adaptable” members of the Canadian profession of arms, clearly some are more pertinent than others.

- Within the meta-competency of Expertise, Visioning will be a critical competency for the adaptable professional. Leaders must be able to create mental models that holistically grasp the interdependencies and interactivity of a multitude of factors and events and alter those models as complex situations evolve.
- Under Cognitive Capacities, it is essential to develop individuals who progress from Newtonian-style analytical modes of thinking to the capacity to think in system terms, applying systems thinking methodologies as appropriate. Leaders must free themselves from the shackles of linearity if they are to achieve true adaptability.
- In terms of Social Capacities the key issue here is the ability to transition from building and maintaining interpersonal relationships at the tactical level (direct leadership) to the qualitatively different ability to build partnerships across departmental, agency and institutional boundaries at the operational and strategic levels (indirect leadership).
- With regard to Change Capacities, two competencies are particularly relevant. Leaders with high degrees of resilience and stress tolerance will be able to resist stasis and mental immobility and remain capable of adapting to new and unexpected challenges. This, in fact, will enable individuals to exercise behavioural flexibility, thus adapting to novel scenarios with greater ease.

- Finally, there are an additional two competencies within the meta-competency of Professional Ideology that speak directly to adaptability. Action Orientation and Initiative are central to a leader's ability to adjust to new conditions through innovation and decisive action. At the same time, Moral Reasoning, based in part on Frederick Kohlberg's Theory of Moral Reasoning,⁷ speaks to the capacity to think and reason in unconventional ways. The leader is developed to progress from a "socialized" state adhering to given rule and norms, through a "self-authoring" state where he/she is capable of exploring options within boundaries, to the ultimate "self-transformational" state, thinking "outside the box" in ways markedly different from conventional models.

CONCLUSION

Although the LDF represents a powerful improvement in the professional development methodology of the Canadian Armed Forces, its utility goes well beyond its role in training and education. It is the pivot around which professional development, succession planning and performance appraisal are linked in a seamless personnel management system. Thus, the professional development system is oriented on producing members of the profession of arms who are fully capable of dominating the "battlespace," possessing such critical characteristics such as *adaptability*. The succession planning system ensures that these individuals are employed in the right appointments at the right time so that experience reinforces and builds on the same meta-competencies contained in the LDF. Completing the overall system, the performance appraisal instrument will assess their performance measured against the same competencies.

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CANADA

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CHAPTER 8

THE NEW ZEALAND DEFENCE FORCE: AN ADAPTABLE ORGANIZATION REQUIRING ADAPTABLE LEADERS

Commander Mark Meehan

*Flight Lieutenant Delwyn Neill**

INTRODUCTION

In 2012, the New Zealand Defence Force (NZDF) published its strategic plan, Future 35 (F35), clearly articulating the future direction of the NZDF.¹ The vision of the Chief of Defence Force (CDF) at the time, Lieutenant-General Rhys Jones, was joint operational excellence. The vision was clear: the single Services (Navy, Army and the Air Force) needed to be fully integrated, with a culture of attaining excellence in everything they do. The time frame of the plan was, as indicated by the name, out to 2035 and beyond. But, what would 2035 look like? What operational requirements will there be to support unknown future political objectives? What Navy, Army or Air Force will be required to support these objectives? What personnel support requirements will there be, whether in the form of uniformed personnel, defence civilians or engaged contractors? Will there still be single Services, and if so, what capabilities will they have and who will operate them? How can the NZDF, and the leaders within it, adapt to meet so many challenges? How can today's military leaders be prepared for the challenges and adaptation required to all of these, in the words of Carl Von Clausewitz, unknown unknowns?

This chapter will explore how the NZDF designed a system to articulate the requirements of leaders across the Force in preparation for their changing roles as they progress through the organization into an increasingly unknown future. It will outline the research process behind the establishment of the NZDF Leadership Development Framework (LDF) and describe some of the key concepts associated with designing the NZDF Leadership Development System (LDS), including the development of individual's strategic

* The views expressed in this chapter are those of the authors and do not necessarily reflect those of the New Zealand Defence Force.

NEW ZEALAND

self-awareness. For the LDS to be seen to be of value to all stakeholders, it must deliver more adaptable leaders, and this result must be tangible. This chapter will also articulate how its impact will be measured. The system must deliver on two levels; at an individual level and, through this level, at the level of improved overall (full spectrum) organizational performance.

OPERATIONAL LEADERSHIP

Much of the formative training given to junior military leaders supports being effective in the tactical and operational environments; this is, after all, their bread and butter. They must be prepared to deal in the here and now, identify and analyze the immediate threat or challenge, and synthesize multiple inputs to make quick decisions. Decisions at this level often have real life or death consequences. These operational environments, whilst challenging, have clearer boundaries or are within the shared mental models of the individuals operating in them.² Initial leadership demands tend to be more transactional, where threats or challenges are more straightforward, or black and white, with less shades of grey. Immediately desired outcomes are clear and individuals can conceptualize more easily the future operating environment, perhaps out two to five years. In order to close the gap in dealing with today's known challenges and the discomfort of tomorrow's unknown unknowns, F35 sets out concrete organizational milestones. However, the CDF recognized that strategic organizational imperatives alone would not deliver success to the NZDF.

THE IMPACT OF EFFECTIVE LEADERSHIP

In drafting F35, Lieutenant-General Jones highlighted the role and importance that effective leadership plays in the NZDF. He considered that it was "leadership above all else that impacts the most on achieving operational success."³ The CDF understood that leadership development does not, despite the thoughts of some, occur best through osmosis or self-learning through experience. He recognized that for individual and organizational excellence, leaders need to be systematically developed. He also recognized a gap in the NZDF professional development continuum and directed the establishment of the NZDF Institute for Leader Development (ILD) to close that gap.

DEVELOPING A MEANINGFUL LEADERSHIP FRAMEWORK

In 2012, the ILD was established and specifically tasked with “the initial and ongoing development and delivery of the NZDF leadership framework, doctrine and policy.”⁴ The first task undertaken by ILD was the establishment of the NZDF LDF. Individual interviews and focus groups were initially conducted throughout the NZDF to capture the leadership expectations, looking both upwards and downwards, at every level of the organization. This thorough exercise was conducted with the CDF and single Service chiefs, down through the organization to army private level equivalents. The project conducted interviews on camps and bases across the length and breadth of New Zealand. It looked at operationally focused units as well as the headquarters environment. As the LDF was to be a pan-NZDF framework, the data captured not only included the uniformed service personnel, but also included NZDF civilian employees.



Figure 8.1 Leadership Development Framework: Six Key Elements.



Figure 8.2: Detail of the essential leadership tasks supporting the “Think Smart” element.

In order to support subsequent analysis, the interviews and focus groups were conducted using a formal structured process. The data collected was subjected to factor analysis, which provided a distinction of requirements or behavioural expectations in the NZDF. The behavioural expectations fell into six distinct groups, or Key Elements: these were Ethos and Values, Think Smart, Influence Others, Develop Teams, Develop Positive Culture, and Mission Focus (Figure 8.1). Distributed within these six Key Elements were 27 sub-elements, or Essential Tasks. These Essential Tasks were identified as being applicable across every level of the organization regardless of rank.

The Key Element of Think Smart is used here to illustrate the Essential Tasks within a Key Element. Think Smart contains five Essential Tasks (figure 8.2). Each Essential Task is equally applicable across every leadership level in the NZDF. An example is that every member of the NZDF, from the Chief of Defence Force down to a new recruit, has to “Deal with complexity to make decisions.” It is the context, level of complexity, and expectations of managing this complexity that changes with each level of the LDF. This level of granularity of behavioural expectations is provided in the 554 behaviour statements that make up the LDF.

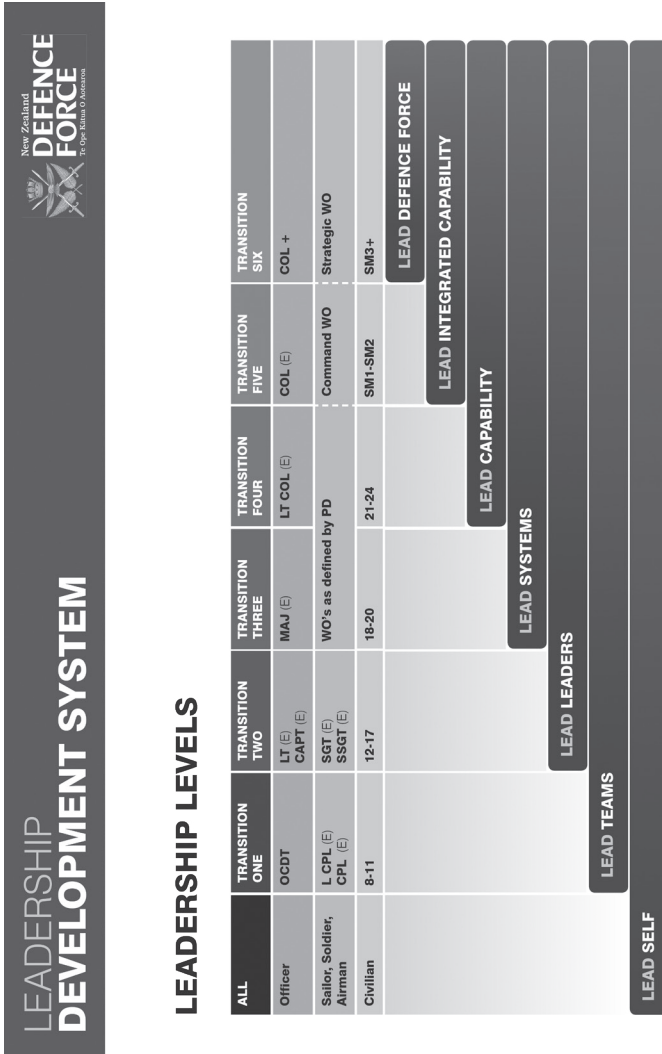
Further to the structured questions, participants were given a specific opportunity to add any other thoughts or provide weight to their previously articulated leadership expectations. This process drew out a clear desire for greater accountability within the NZDF, not only for others to be held accountable for their actions but also for individuals to be recognized for their striving to fulfil personal levels of accountability. The LDF was designed on the basis of these findings.

WHAT IS EFFECTIVE LEADERSHIP?

The behavioural statements detailed in the NZDF LDF provided a clear picture of successful leadership at each level of the organization. What made a leader successful at one level of leadership in the NZDF did not necessarily make them successful at a more senior level. Leaders must be able to adapt their leadership to the level within which they are operating. The NZDF Levels of Leadership (Figure 8.3) described in the LDF are in line with Organizational Stratification theory, as identified and articulated by organizational psychologist Elliot Jaques.⁵ Leaders in the NZDF must continue adapting as they transition through the organization. They must continue to add the specific value that the organization needs of them at their level, along with the values that are articulated and specific to their level. The levels of

NEW ZEALAND

leadership development in the NZDF span from new recruits joining the NZDF, where they need to understand the requirement to first and foremost lead themselves, all the way through to preparing the most senior leaders in the NZDF, preparing them to “Lead Defence.”



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Figure 8.3: NZDF Leadership Levels

A NEW DIRECTION?

In January 2014, Lieutenant-General Timothy Keating was appointed New Zealand's CDF, replacing Lieutenant-General Jones. On appointment, Lieutenant-General Keating not only reaffirmed the direction of F35 but placed even greater weight on establishing way points on the journey. He painted a simple picture by quoting the famous New Zealand sailor and leader Sir Peter Blake.⁶ Sir Peter Blake drew his successful America's Cup winning team together by making their preparation for the race focus on one point, "will it make the boat go faster?" Lieutenant General Keating recognized the simplicity in this approach. For the members of the NZDF, the simple primary focus was that of "operational excellence and service to the country."⁷ He reinforced the sign post analogy of his predecessor by recognizing the requirement for "tangible deliverables", i.e., deliverables that reflect an agile, adaptable organization capable of meeting any challenge.⁸

As with his predecessor, Lieutenant-General Keating also recognized the role that leadership has to play in the achievement of the NZDF's mission and vision. The new CDF reinforced the requirement for personal accountability, the accountability that each member of the NZDF (civilian or in uniform) has to play in achieving the NZDF vision. Leading by example, in his first published internal communication the new CDF stated "We will hold ourselves accountable as the leadership team and me as the head of the leadership team" for the delivery of the vision.⁹ This theme of individual and organizational accountability is one of the twenty seven Essential Tasks underpinning the Leadership Development Framework. It is now a formal expectation that all members of the NZDF "Accept accountability and hold others to account for outputs, actions and behaviours."¹⁰ As individuals transition up through the NZDF levels of leadership greater expectations of their accountability exist, and it is incumbent on the organization to support individuals' adaptation to the new requirements.

BETTER PREPARING PERSONNEL FOR LEADERSHIP 'TRANSITION'

For the NZDF to be the most effective organization that it can be, upon promotion or change in position, personnel must be able to adapt and transition to the demands of the new role. This includes not only from one level of leadership to the next but also from one position within the same level to the next position. Research has identified that all leaders go through a period of adaptation or transition when their roles change.¹¹ It is critical for the success

NEW ZEALAND

of both the individual and the organization that these transitions are made as smoothly and as quickly as possible. As identified previously, the transition from the tactical and operational level to areas with a more strategic focus offers challenges for all leaders. Some deal with the transition more smoothly than others.¹²

Research by the Corporate Executive Board (CEB) identified distinct trends in leaders' ability to adapt to their new role based on their previous leadership experience. Much like the challenges encountered by junior military leaders having to adjust their thinking from beyond the battlespace to the headquarters or corporate environment, CEB established that first line leaders have the steepest orientation learning curves.¹³ First line leaders are, however, not on their own in having to deal with the challenge of adapting their leadership to a new role, as middle and senior leaders are also challenged by the transition. However, their journeys, or the steepness of their learning curves, vary and are understandably shaped by the knowledge they have gained by previous transitions. A key role of the LDS is to improve individual effectiveness, or accelerate the journey of transition, at all levels of the NZDF.

THE LEADERSHIP JOURNEY

For an individual to be successful, they must have a clear understanding of what success looks like. In the NZDF, this clarity of understanding is generated by the LDF. Regardless of the transition in leadership level, or role being undertaken, an individual can reflect on the LDF and the behaviour statements that articulate what success looks like. Prior to any transition, in rank or role, personnel are required to conduct a self-assessment against the elements of the framework. This assessment subsequently acts as the start point on their journey of transition. The journey through the LDS is very personal for every member of the NZDF. While this journey is supported by external inputs, such as residential leadership development programs tailored for each level, the onus of responsibility for development lies firmly with the person undergoing the development or transition. This is underpinned by the first level of the LDF being Lead Self. However, the individual is never alone on the journey of development, as they are intrinsically supported in the workplace by their supervisor. This is a foundation of the LDS, that leadership development does not only occur through or during a course, it occurs in the workplace through experiences and reflection (Figure 8.4). Preferably, this process is supported by a supervisor, mentor or peer.

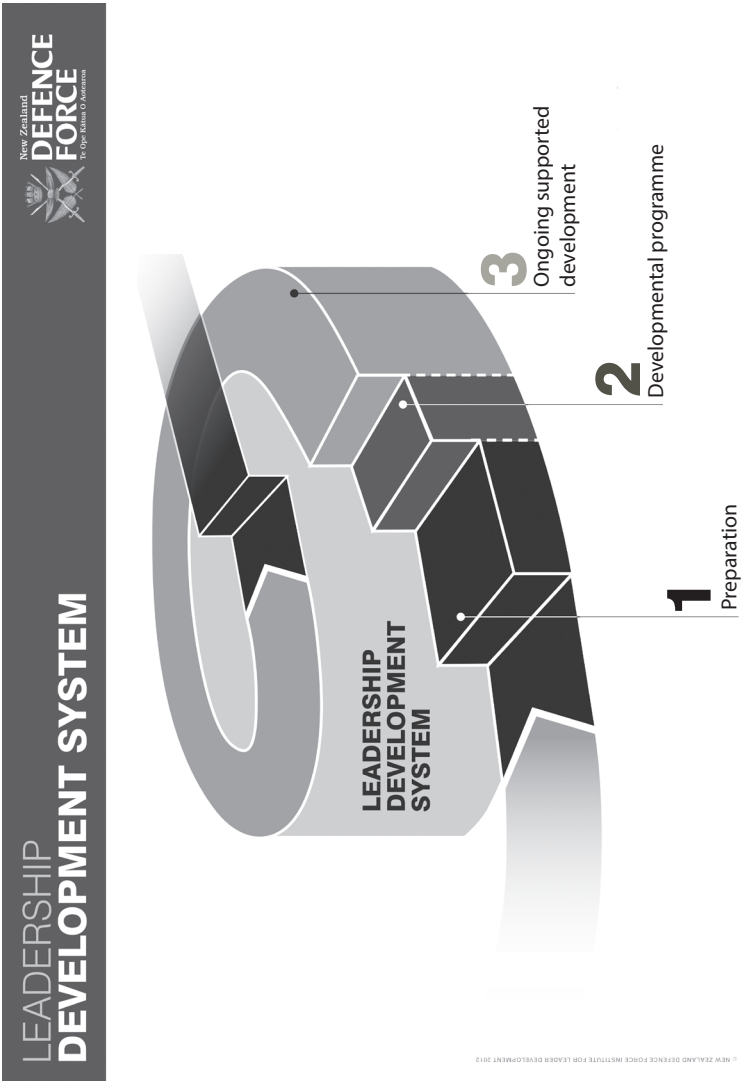


Figure 8.4: NZDF Leadership Development System

STRATEGIC SELF-AWARENESS AND THE DOMAIN MODEL

The LDS leverages the fact that at the most basic level of leadership is fundamentally about interactions between human beings. The role of a good leader is to make all interactions as successful as possible. This does not mean a leader has to placate subordinates or be afraid to apply firm command; they simply need to be able to leverage the knowledge they have of themselves and those they lead. Historically the focus on individual development in the NZDF has been on professional competencies, with these professional aspects being associated with a trade or profession. The professional competency of leadership, and the intrapersonal and interpersonal skills required of a successful leader, have previously been allowed to develop in an unstructured manner. This situation, for reasons of individual and organizational effectiveness, is no longer considered acceptable to the NZDF.

Robert Hogan and Rodney Warrenfeltz identified a four domain model for managerial or leadership development to which the LDS ascribes.¹⁴ The four domains identified by Hogan and Warrenfeltz were those of intrapersonal, interpersonal, leadership, and professional (or business) skills. The intrapersonal domain relates to how individuals manage themselves when faced with the challenges that work and life puts before them on a daily basis and how they control their emotions from a personal perspective. The second domain identified by Hogan and Warrenfeltz is that of interpersonal skills. This is an individual's ability to successfully interact with others and how they build and sustain positive relationships, the positive relationship that good leadership relies on. The third domain centres around leadership skills, the tangible skills needed to build and sustain a team. These are skills or concepts that can be learned but without the skills in the first two domains, the ability of an individual to transfer these through interactions to the team will be extremely hindered. The final domain identified is that of professional skills. However, over time this domain has become more commonly referred to the business domain.¹⁵ It refers to the practical professional business skills that are cognitively the easiest to teach and learn. They are the skills that are usually the subject and focus of development in most organizations and the easiest to see or test. The NZDF recognized that to develop leaders to be able to adapt to the changing demands placed on them, a far greater emphasis needed to be placed on the domains of intrapersonal and interpersonal skills. These were the two domains that historically the least, if any, focus had been placed.

When members of the NZDF were asked to identify the behaviours demonstrated by either inspirational or poor leaders, the behaviours could, for the most part, be ascribed to either the intrapersonal or interpersonal domains. The focus placed on Strategic Self Awareness by ILD programs is aimed at addressing these previous shortfalls in the development of individuals within these domains. The key requirement that individuals focus on is aligning their identity with their reputation. Their identity is how they think of themselves and how they feel they are perceived by others. This is not always fully aligned with their reputation, which is how others truly see them. It is in developing individuals' true understanding of how their personality impacts on their ability to interact and influence others around them that the psychometric assessment tools used in the LDS prove invaluable.

Some individuals, through their personality, are more comfortable and successful at adapting to change than others. However, as individuals can not choose their personality, how can the NZDF support leaders being more comfortable and more effective in areas in which they are not naturally predisposed? The LDS places significant onus on Strategic Self Awareness. This includes the exploration of an individual's natural disposition, including their comfort in adapting their leadership to meet the ambiguity that comes with more senior appointments, and the impact of this on their potential success. This exploration is achieved through the use of psychometric assessment tools to provide individuals with a better understanding of themselves and the impact they have on others. Further, they are supported in developing a better understanding of the differences that can exist between themselves and those they are required to interact with and, most importantly, those they are required to lead.

As well as developing insights into their personality and unique leadership style, the LDS also provides individuals with a range of leadership tools and techniques to apply in the workplace. In addition to increasing leaders' awareness of the organization's expectations of them, the LDS programs focus on providing practical tools to meet the increasing expectations of leadership and the requirement for individuals to be increasingly adaptable as they move into more demanding leadership positions. Leaders are then held accountable for transferring their learning to the workplace. They do not do this alone, however, as they will have the support of their supervisors who have a critical role to play in the LDS.

NEW ZEALAND

MEASURING LEADERSHIP DEVELOPMENT

In order to determine whether the LDS is achieving the goal of providing “improved leader development across the NZDF in order to improve our overall performance,”¹⁶ an evaluation strategy has been developed to monitor and measure performance changes. This exercise includes evaluating how leadership behaviours are changing at the individual level as well as examining the greater impact of leadership development on the wider organization. Gathering this data will be pivotal to enabling ongoing refinement of the LDS, its processes, and its content.

In order to test the effectiveness of the LDS, the measurement strategy will seek answers to three key questions:¹⁷

1. How effectively are leaders adapting their behaviours in the workplace?
2. What organizational factors are supporting those performance improvements?
3. What barriers exist in the organization that need to be changed to support improved leader development?

INDIVIDUAL PERFORMANCE IMPROVEMENT

The NZDF is currently preparing to implement a new Performance Management System to ensure leaders at all levels are held more accountable for their leadership behaviour. The behavioural competencies of the LDF are incorporated into this tool so that leaders are assessed specifically against the trained elements of the LDS. This systems approach will effectively close the loop; from the individual coming into the system, attending a program, building a Leadership Development Plan, implementing it with the support of supervisors, coaches and mentors, then being assessed on their performance annually. As well as providing the necessary motivation for leaders to keep focused on developing their leadership ability, this assessment tool also meets the clearly stated need for greater accountability in the organization.

While this system is being designed and implemented, a two-pronged approach is being applied to assess what impact the LDS is having on leadership behaviour in the workplace. While obtaining accurate data is likely to be challenging, it is vital to be able to assess whether the training program is resulting in changed behaviour in the workplace. For several LDS programs,

Kirkpatrick's level three evaluation¹⁸ is conducted four to six months after participants attend a course. Online surveys are used to canvass individuals' views on the extent to which they have adapted their leadership behaviours in the workplace. In addition, program participants' immediate supervisors are also surveyed to capture what changes and improvements they have observed in the individual. This process is aimed at identifying how effectively leaders are applying their learning in the workplace.

The second strand of measurement uses the Brinkerhoff Success Case Method¹⁹ (SCM). The SCM approach involves two phases. The first phase is surveying all participants of a program to ascertain the extent to which they have successfully implemented new skills or behaviours as a result of the training initiative. The second phase is interviewing a small number of those who have been successful, as well as interviewing those who have not implemented anything from the course. Comparisons between these groups can identify factors that enhance or impede the application of learning from training²⁰. It is particularly important to identify any barriers to improved leadership performance so that the LDS can be adjusted to remain perpetually relevant and beneficial.

Success stories generated from this training evaluation process will be objectively analyzed and corroborated with hard evidence to establish that it was indeed the application of the training that led to a valued outcome. Once these stories have had identifying information removed, they can then be used as case studies to reinforce future programs. This approach will generate a realistic picture of the impact the LDS is having on the NZDF. Using the SCM will provide stories that demonstrate the successful application of improved leadership ability, with the potential to highlight the value of such development at the organizational level. Furthermore, it is possible that the process could also reveal factors that are impeding the application of leadership skills on operations. Above, all the SCM is intended to help all stakeholders learn what worked, what did not, what worthwhile results have been achieved, and most important, what can be done to get better results from future efforts.²¹

ORGANIZATIONAL LEVEL MEASUREMENT

The NZDF Institute for Leader Development will also measure the impact of the LDS at Kirkpatrick level four evaluation.²² This involves evaluating the impact of leadership development on organizational levels of engagement, commitment and morale. The NZDF already operates the Ongoing Attitude

NEW ZEALAND

Survey, a rolling climate survey that aims to survey all personnel in the NZDF annually. It canvases the attitudes, perceptions and opinions of both uniformed and civilian staff on a wide range of issues. With regards to leadership, pertinent questions touch on a number of key factors that the LDS is aiming to address. These questions deal with the impact a leader has on trust, communication, relationships with their teams, development of subordinates, feedback and coaching, recognition and team culture. Monitoring trends on the responses to these questions will be insightful, as will identifying any relationship between these questions and organizational levels of morale, engagement, commitment, and effort and performance. Historical data in these areas is already available within the NZDF to establish trends prior to the implementation of the LDS.

CONCLUSION

A critical success factor in the NZDF's ability to achieve its strategic vision of F35 is its capacity to generate highly effective leaders. The CDF recognized a gap in the NZDF professional development continuum and implemented the establishment of the ILD, and subsequent LDS, to support leaders' development. The NZDF requires leaders that must be capable of adapting their leadership to meet the requirements of a rapidly changing landscape. The NZDF recognizes the need to fulfil its operational outputs, supported by preparing all leaders at the tactical and operational levels. The NZDF has now formally recognized that the leadership characteristics that bring success at one level within the organization are not necessarily those that bring success at another. As individuals advance to more strategic levels, the leadership demands and organizational expectations change. To meet these changes the NZDF has initiated the LDS to raise the quality and effectiveness of leaders across the entire Defence Force. The pursuit of excellence will be spearheaded by these more effective leaders as they take the NZDF towards 2035 and beyond.

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CHAPTER 9

ADAPTABLE LEADERS FOR THE SOUTH AFRICAN ARMY

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INTRODUCTION

The world has changed and is perpetually changing. The past three decades provides clear proof of this, as there has been a significant change worldwide in the context in which leaders in general and military leaders in particular function. Reasons for these changes range from political changes within countries to specific events such as the end of the cold war, the 9/11 terrorist attacks in the United States of America (USA) and the impact of the subsequent global war on terrorism. This was followed by the so-called economic meltdown, which started toward the end of 2008 and had a global economic impact. In dealing with these changes, both in the private sector and the military, a number of authors emphasize the need for what is referred to as adaptable leaders¹ or adaptive performance² of leaders.

As a player in the global world of politics and economics, South Africa is not isolated from these changes. In fact, South Africa's need for a new leadership paradigm became evident prior to the 9/11 incident through the 1994 integration of seven different armed forces into one, the South African National Defence Force (SANDF).³ As a result, South Africa's role in Africa has changed dramatically, especially since the SANDF, and more specifically the South African Army (SA Army), is deployed in support of South Africa's national interest,⁴ which is to bring about peace and security on the continent in order to ensure economic growth for South Africa.

As a consequence of South Africa's involvement on the African continent, the military has been continuously deployed on a variety of missions. Recently, in the Central African Republic, the SANDF fought its fiercest battle since the integration of the different armed forces. In this instance, about 200

* The views expressed in this chapter are those of the authors and do not necessarily reflect those of the South African National Defence Force.

SOUTH AFRICA

South African soldiers fought a series of running battles against a well-armed rebel force, estimated to be between 4 000 and 7 000⁵ in number, thus placing incredible pressure on the deployed forces and especially on the military leaders (both officers and non-commissioned officers), most of whom were from the SA Army.

The current situation leads to a number of questions. The first is about the context in which military leaders in the SANDF, and the SA Army in particular, have to function. Once knowledge is gained regarding the context, one needs to understand what this context demands from SA Army leaders. Once understanding is gained about the context and what it requires from SA Army leaders, questions arise as to what adaptable/adaptive leadership is (especially in the SA Army), what has been done up to now to establish this form of leadership, and finally what should be the way forward for the SA Army?

THE CONTEXT

The context in which the SA Army military leaders operate can be divided into four parts. In its most basic form, or alternatively stated, at the micro-level, the military leader functions in an environment that is referred to as the “military leadership situation.”⁶ At the next level is the general military environment with its unique stressors that differ significantly from the civilian environment in which leaders function in the private sector. Thirdly, the military functions as part of the South African government, with specific responsibilities to the South African population and the Republic of South Africa (RSA) as a state. Lastly, in its broadest context the SA Army functions within the African battlespace (ABS) as a whole.

THE MILITARY LEADERSHIP SITUATION

The military leadership situation refers to the basic level of a military leader’s engagement, both during battle and during peace. This is the micro-level on which military leaders find themselves. It is said that during conflict the military leadership situation is determined to a great extent by the dynamics of the battle, which include danger, chance, exertion, uncertainty, apprehension and frustration.⁷ During peacetime, the military leadership faces different dynamics: military personnel are faced with relative uncertainty and deprivation, especially with regard to budget cuts and remuneration. Apart from the micro-environment in which the SA Army leader functions, he or she is also part of the military environment, which is completely different from the environment in which his or her counterpart in the private sector functions.

THE MILITARY ENVIRONMENT

A review of the literature on the military environment in a recent study at the University of Stellenbosch, South Africa, identified various factors that contribute to the uniqueness of the military environment.⁸ A summary of these factors is presented in Figure 9.1.



Figure 9.1. The Unique Military Environment

These factors cause unique occupational stressors with which the military leader has to deal. Campbell and Nobel⁹ divide these stressors in the military environment into seven broad categories: work, social-interpersonal, family, self-identity, psychological environment, cultural environment and physical environment (see Table 9.1 for a summary of these stressors).

SOUTH AFRICA

Category	Specific Potential Stressors
Work	Task, load, pace, ability, ambiguity, confusion, responsibility, restriction, supervision, group climate, work policies, work goals, advancement, work change, lack of feedback, no resources, poor leadership.
Social-Interpersonal	Acceptance, friendship, respect, status, conflict, change, loss.
Family	Separation, safety, missed milestone, guilt, usurpation, communication restrictions, change, loss, worry.
Self-Identity	Person-role conflict, role-role conflict.
Psychological Environment	Hostility, aggression, injury, death, maiming, fear, anxiety, responsibility, disapproval, repugnance, uncertainty, boredom, insignificance, isolation, abandonment.
Cultural Environment	Unfamiliarity, value clash, discomfort, language, customs, misunderstanding.
Physical Environment	Deprivation, discomfort, climate extreme, terrain extreme, privacy loss, exhaustion, noxious, unhealthy, isolation.

Table 9.1. Categories of Occupational Stressors in the Military

The unique military environment and stressors in the military environment influence how leaders behave in the military and can ultimately affect operational efficiency and military preparedness. Besides the unique military environment, the military leader also has to function as part of South Africa's broader public service in service of the nation.

RESPONSIBILITIES TO SOUTH AFRICA

The Constitution of the RSA mandates the Department of Defence to protect and defend the RSA and its sovereignty, territorial dignity and national interests. This translates into three primary tasks: deter and prevent conflict, defend national interests and defend the RSA.¹⁰ As a result, the SANDF in general and the SA Army specifically will be confronted with various contingencies on a spectrum of conflict that varies from low-intensity political and economic conflict to total war. The probable spectrum of conflict in which the South African military has to operate is presented in Figure 9.2.

INTER-STATE CONTINGENCIES

Political and Economic Conflict	Sub-National Conflict	Overt Armed Conflict	Limited War	General/ Total War
<p>Alliances, propaganda, economic and political co-operation/sanctions, military co operation and/ or assistance.</p> <p>Conflict management through negotiation, mediation, arbitration.</p>	<p>Boycotts, seizures, violations of territorial integrity, assassination, acts of terror, sabotage, hostage taking, state-sponsored plundering of resources, training advice and military assistance.</p>	<p>Sporadic armed clashes, skirmishes, raids and temporary incursions by conventional forces.</p> <p>Limited ends rather than major change in status quo.</p>	<p>Protracted, sustained operations by conventional forces, partial/temporary invasion, intent to affect significant change in status quo, such as regime change or annexation of territory.</p>	<p>Full mobilization, war in all dimensions, intent to invade, occupy and conquer, complete change in international order.</p>
SPECTRUM OF CONFLICT				

Figure 9.2. Spectrum of Conflict for RSA Military

Figure 9.2 clearly illustrates the diversity of situations with which the military leader will be confronted. It may happen very often that within the spectrum of conflict the operation changes from an adrenaline-pumping peace-enforcement operation to a patience-demanding post-conflict reconstruction and development operation. It is expected that the South African military leader will mainly have to deal with this diversity of situations on the African continent in the ABS.

THE AFRICAN BATTLESPACE

Battlespace is a term that has replaced the dated term “battlefield” to broaden the thought and understanding of its implications.¹¹ The battlespace is that domain or realm where military leaders engage various actors in order to achieve set objectives. In general, the concept of battlespace is multidimensional, going beyond the three-dimensional space and time, but can be postulated as presented in Figure 9.3.¹² The nature of the ABS is thus co-determined by geographical, psychological, spatial and other factors,¹³ including cyberspace (which is also referred to as the information domain).¹⁴ Successful military leaders display awareness before, during and after deployment in order to understand where, when and why they need to do what, in order to achieve set objectives.

SOUTH AFRICA

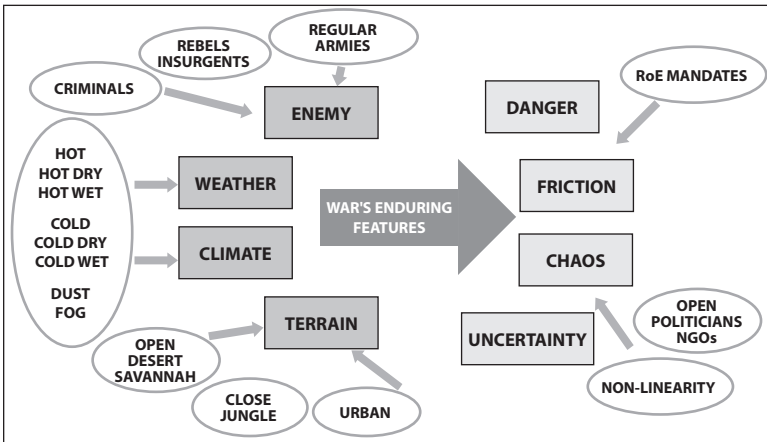


Figure 9.3. Dimensions of the Battlespace

The Physical Characteristics

The first thing that comes to mind when one thinks of battlespace is the physical characteristics. Drost¹⁵ and Grundling¹⁶ make a few interesting observations in this regard. The ABS includes desert to semi-desert regions, tropical wet regions and mountainous areas. Africa's climate ranges from tropical to subarctic at its highest peaks. The northern part is primarily arid or desert, while the central and southern areas contain both savanna plains and very dense jungle/rainforest regions. Between this, one is also likely to find a convergence where vegetation patterns such as *sahel* and steppe dominate. South of the Sahara is an inter-tropical convergence zone, also known as the monsoon trough, that creates a rainy season across the central portions of the continent. Annually, many tropical cyclones occur in the northern Atlantic owing to tropical waves moving offshore of Africa, caused by the African easterly jet. Africa's physical and social infrastructure ranges from obsolete and poorly maintained in underdeveloped and developing countries to modern and well-maintained in the more developed states.¹⁷ In some areas, infrastructure is close to nonexistent. Forces may thus be deployed in remote rural areas or in densely populated urban areas where there is significant infrastructure. Africa is also complex because of its size: as an illustration of its magnitude, Africa can "absorb" the USA, China, Eastern Europe, India, the United Kingdom, Japan, Portugal, Spain, the Netherlands, Belgium, France, Germany, Switzerland and Italy all at once.

Colonialism's Legacy

The results of colonialism are still evident in the Africa of today, especially with respect to the incipient instability created by fragmentation due to colonial boundary commissions and the concomitant fragmentation of families, communities, clans, tribes and nations. As a result the current security environment has been described as “persistent troubled peace.”¹⁸

Social Complexity

Within the ABS, the military leader will be confronted with a populace that most probably comprises three co-existing groups, namely the first group, which is openly hostile to the deploying force; the second, which is neutral or empathetic to operations by the deploying force's, and lastly, a third group that is supportive of the deploying Force's operations and is also friendly toward this force. Furthermore, deploying forces will be confronted with child soldiers, rebels, criminals and female combatants. These combatants may not be wearing uniforms and may not be distinguishable from the rest of the population.¹⁹ Closely linked to this complexity are the local leaders with whom the military leader has to engage.

African Leadership

Africa has its own brand of leadership that can be referred to as African leadership. Rotberg, describing leaders as “predatory kleptocrats, military-installed autocrats, economic illiterates and puffed-up posturers,” with too few leaders following the examples of Nelson Mandela (RSA) or Seretse Khama (Botswana), argues that leadership in Africa has often been poor or malevolent.²⁰ Very often these leaders are the ones that need to be cooperated with, protected, supported, pacified or even neutralized during operational deployments.

Changing Character of Conflict and New Security Patterns

Whereas Africa was traditionally characterized by interstate war, this has been replaced by intrastate war.²¹ Consequently, operations are conducted in failed or failing states where the effectiveness of human networks has been drastically improved by globalization, which facilitates rapid information flow. It can furthermore be expected that future enemies will be embedded within the general population to avoid traditional conventional force overmatch.²² In this regard, Jabbogy²³ states that the distinction between civilians and the military will continue to be eroded and might even disappear, thus leading to more social complexity, as discussed above.

SOUTH AFRICA

Many of the sub-Saharan states are not typically associated with high technology and some do not even have an air force. One must however be cautious not to stereotype Africa, because a state might have decaying telephone lines amid escalating cellular phone usage.²⁴ Furthermore, one might have to function in an African conflict environment where advanced technologies would be irrelevant or ineffective. In addition, one might have to deal with new security patterns such as piracy, organized cross-border crime and sophisticated cybercrime.²⁵ In fact, du Toit²⁶ observes that the future battlespace demonstrates a dualistic nature, comprising a combination of symmetry and asymmetry. In support of this argument, Grebstad²⁷ and Messier²⁸ refer to Krulack's so-called "three-block war," suggesting that within three city blocks soldiers could be found engaging in a variety of activities ranging from humanitarian assistance to peacekeeping to traditional war fighting.

Asymmetric Nature of Warfare

As an asymmetric environment, Africa is characterized by areas where there is endemic urban-based irregular conflict against adversaries with diffuse aims that have highly developed non-conventional survival and combat skills.²⁹ An asymmetric conflict is characterized by a severe imbalance in force capabilities and sophistication. Asymmetric opponents will not be utterly primitive; they will have access to at least some high-technology weaponry.³⁰ The potential opposing force (OPFOR) that uses asymmetric strategies will make an effort to take advantage of a complex terrain (urban, forested, jungle and mountainous) to minimize the mechanized advantage of conventional armies.³¹

The most appropriate response to an asymmetric threat seems to be an asymmetric response, such as that provided by effects-based operations.³² This will require interoperability between different departments and even between different troop-contributing countries (joint and multinational operations), for example, as part of the United Nations or the African Union. Consequently the SA Army will be involved in a more comprehensive security approach, posing additional challenges to its military leaders, such as the management of reliance on interdependency with other departments and/or nations to bridge the gaps between the different cultures of the various role-players.

External Influences

The strategic, operational and tactical levels of war have been compressed by globalization. Events at lower levels may consequently have a significant

impact at higher levels. The nature of the conflict has also taken on the added complexities of sophisticated and highly adaptable insurgencies. The result is a multi-dimensional battlespace where “information superiority” is defined as the ability to enter the decision cycle of the OPFOR, which has become an essential element of victory. The OPFOR is quite likely to use explosive devices, anti-personnel mines, anti-tank mines and booby traps and will try to contaminate water resources.³³ It is expected that OPFOR will most probably operate outside the bounds of the nation state and that war and crime will become more interlinked.³⁴ It is also referred to as a hybrid³⁵ threat, which can range from transnational and regional terrorism to rising influence of global economic powers³⁶.

It can thus be concluded that military leaders at all levels will be challenged by various complexities that will require adaptability for mission success. This emphasizes the notion that adaptive leadership is essential to function successfully in this context. These complexities can be summarized in a few words as “variety,” “uncertainty,” “ambiguity,” “unpredictability,” “change” and “hybrid.” These complexities include aspects such as a dispersed yet tenacious enemy, quick-changing circumstances, difficulty in identifying the enemy, operations with other militaries as part of the African Union or the United Nations, dealing with unfamiliar cultures and languages. A range of hybrid threats will be present that are innovative, globally connected, networked and embedded in the local population. Opponents will furthermore be likely to possess advanced technologies, utilizing a combination of traditional, irregular, and criminal tactics, as well as using traditional capabilities in both old and new ways. As a result the operational tempo might increase for short periods, with a constant shift in tactics and approaches.

LEADERSHIP REQUIREMENTS BASED ON THE CONTEXT

It is clear that the SA Army is faced with an increasingly demanding operational environment, especially when deployed in the ABS. This will require highly functional military leaders who are skilled and knowledgeable in dealing with increasingly complex technologies, such as information technologies. Furthermore, physical and mental peak performance is required for adapting to new missions, sometimes within hours. Good and timely decisions and solutions to problems are therefore crucial to the military environment. These decisions are often made in ambiguous situations and leaders need to be adaptable in their thinking.³⁷

SOUTH AFRICA

The involvement in joint and multinational operations requires leaders to lead and take command across cultures. In addition to the decision-making and reactions required, a recent study on peacekeeping suggests that military leaders are required to adapt to local cultures and conditions of living as well.³⁸ Because of remote and often isolated theatres of operation, the military leader will have to be able to make autonomous decisions in ambiguous and rapidly changing situations. The SA Army leader is therefore required to learn continuously from the situations he or she is exposed to and then be able to apply the lessons learned in other contexts as well.

Today's SA Army leaders need to demonstrate logical problem-solving to successfully address the challenges of the operational environment. They will often be challenged with old problems that require new solutions or completely unfamiliar problems, as well as with lots of ambiguity. In support of this view, Bartone observes that there is currently an increasing need for military leaders at all levels to possess attributes that were traditionally only viewed as essential for senior strategic leaders, such as conceptual capacity, divergent thinking and creative problem-solving.³⁹ The same can be said for the context in which SA Army leaders function.

Leaders must understand the various dimensions of the battle space in order to seize the initiative, dictate terms of close combat maneuver, and impose their will on the enemy. Military leaders are required to think beyond just what is in front them; they also have to anticipate unintended effects such as collateral damage. In this regard, it is worth mentioning Burkett's observation that during World War II German forces identified the British civilian population's morale as the center of gravity, but the bombing of London made them resist even more.⁴⁰ Such factors should also be considered in the ABS, requiring military leaders to think in new ways and to have the ability to plan and execute more highly developed and synchronized operations. The requirements of the context in which SA Army leaders have to function can be summarized in the following quotation: "Complex contexts and environments require leaders to be highly adaptive and to adjust their behavioral responses to meet diverse role demands."⁴¹

CONCEPTUALIZING ADAPTABLE MILITARY LEADERSHIP

There is consensus in the military leadership literature that adaptable leadership is the proposed paradigm for the context in which contemporary military leaders have to function.⁴² The SANDF and more specifically the SA

Army does not have a paradigm referred to as adaptable military leadership *per se*. It is therefore necessary to conceptualize the term “adaptable military leadership” or “adaptive military leadership.” Within the SA Army, leadership is viewed as unleashing the potential of people to respond to encounters in extraordinary ways. Formally the SA Army defines leadership as “the act of directly or indirectly influencing others, using formal or personal attributes, to act according to the intent or a shared common purpose.”⁴³

ADAPTABILITY

In order to understand what is adaptable leadership, it is important to understand what is adaptability. Adaptation⁴⁴ was proposed by Swiss psychologist Jean Piaget as the “modification of an organism’s psychological structures or processes in response to environmental demands.” This explains the process whereby behavior or subjective experiences change to fit in with a changed environment or circumstances.⁴⁵ From an organizational perspective, such as the military, adaptation refers to the process by which an individual achieves some degree of fit between his or her behavior and the new work demands created by novel and often ill-defined problems resulting from changing and uncertain situations.⁴⁶ These definitions confirm that adaptability is a multi-faceted construct and refers at the most basic level to “an effective change in response to an altered situation.”⁴⁷ Hence, emphasizing the need to change, based on some current or future alteration in the environment and therefore a change in the military leader’s behaviour, will be viewed as appropriate.

Bartone cited a more operationalized definition of adaptability provided by the Defense Sciences Board as: “the ability and willingness to anticipate the need for change, to prepare for that change, and to implement changes in a timely and effective manner in response to the surrounding environment.”⁴⁸ In this chapter, adaptation is defined as the process through which an individual (military leader) modifies his or her behavior in response to environmental demands and challenges.

Pulokas et al.⁴⁹ proposed a model of what Bartone⁵⁰ refers to as a “taxonomy,” consisting of eight dimensions of adaptability based on content analysis of critical incidents describing effective and ineffective instances of adaptability (many of which came from military settings). These dimensions are clustered into three overarching types of adaptability by Mueller-Hanson, White, Dorsey and Pulakos,⁵¹ as depicted in Table 9.2, with a supplemental overarching type of adaptability, which refers to leading an adaptable team.

SOUTH AFRICA

OVERARCHING TYPE OF ADAPTABILITY	DESCRIPTION	DIMENSIONS
Mental Adaptability	<i>Adjusting one's thinking in new situations to overcome obstacles or improve effectiveness.</i>	Handling Emergencies or Crisis Situations
		Dealing Effectively with Unpredictable or Changing Work Situations, Handling Stress
		Learning Work Tasks, Technologies and Procedures
		Solving Problems Creatively
Interpersonal Adaptability	<i>Adjusting what one says and does to make interactions with other people run more smoothly and effectively.</i>	Demonstrating Interpersonal Adaptability
		Displaying Cultural Adaptability
Physical Adaptability	<i>Adjusting to tough environmental states such as hot, cold, etc., pushing oneself physically to complete strenuous or demanding tasks and adjusting weight/muscular strength or becoming proficient in performing physical tasks as necessary for the job.</i>	Learning Work Tasks, Technologies and Procedures
		Displaying Physically Oriented Ability
Leading an Adaptable Team	<i>Leaders take the responsibility for developing adaptability in their units by encouraging and rewarding adaptive behavior and by ensuring that everyone works together in a coordinated fashion.</i>	

Table 9.2: The Dimensions of Adaptability⁵²

Leading an adaptable team is the overarching type of adaptability that is most often ignored or overlooked and could possibly constitute the difference between mission success and mission failure.⁵³ In encouraging team

adaptability, a number of behaviors are suggested for military leaders, such as developing a mental model of the team with specific reference to team and subordinate resources, team role structure and assignments, team cohesion, morale, communication and social influence patterns in the team, specific performance protocols and norms; being critical in setting a tone or climate for their team that is conducive to adaptability; demonstrating participative rather than autocratic leadership; involving team members in the planning of activities for the team; being more democratic than autocratic, willing to self-critique, asking and accepting help, thus giving a signal to other team members that they can talk about their mistakes, and providing feedback (for example through briefings) to enable the team to improve its performance.⁵⁴ Positive feedback can also be used to facilitate improvements on successful performance. Feedback can also be provided on a less formal basis.

ADAPTIVE LEADERSHIP

Adaptive leadership is not viewed as a passive effort merely to adjust to circumstances. Adaptive leadership is demonstrated by those leaders who view the organization as a living — not mechanical — system, and who are encouraged to build upon the circular and interactive relationships among the people in the organization.⁵⁵ Adaptive leadership is about changing behavior in appropriate ways as the situation changes. Thus, the more dynamic the environment, the more critical adaptive leadership is for mission success.

Ronald Heifetz of Harvard University is viewed as the pioneer of adaptive leadership theory. According to Cojocar, Heifetz states that adaptive leadership is the practice of mobilizing people to tackle tough challenges and thrive.⁵⁶ Heifetz and colleagues stated that adaptive leadership consists of three parts: observation, interpretation and intervention.⁵⁷ The complexity theorists Liechtenstein, Uhl-Bien, Marion, Seers, Orton and Schreiber define adaptive leadership as: “an interactive event in which knowledge, action, preference and behaviors change, thus provoking change within an organization.”⁵⁸ It is important to note that adaptive military leadership is slightly different from leader adaptability, which is defined as the capacity of leaders to adjust their thoughts and behaviors to enact appropriate responses to novel, ill-defined, changing and evolving decision-making situations.⁵⁹

Sharpe and Creviston observe that there is very little difference between the US Army’s definition of adaptive leadership and that of more corporate examples.⁶⁰ In the absence of a formal definition of adaptive leadership in the SA Army, it is worth looking at the definition from the US Field Manual 6-22 on Army Leadership.⁶¹ Adaptability is defined as an individual’s ability to

SOUTH AFRICA

recognize changes in the environment, to identify the critical elements of the new situation and to trigger changes accordingly to meet new requirements. It also refers to a very important skill and often undervalued capacity for exercising adaptive leadership, namely diagnosis. In military terms, it relates to “mission analysis” or “running estimate analysis.”⁶²

An adaptable leader is thus viewed as one who is willing to accept risk in rapidly changing situations, has the ability to adjust based on continuous assessment, and can modify his or her thinking, creations and interactions. Heifetz, Grashow and Linsky indicate that adaptive work is challenging and demands three tough human tasks: work out what should be conserved from past practices (lessons learned), work out what to discard from past practices, and finally invent new ways that build on the best from the past.⁶³ Such a leader is comfortable entering unfamiliar environments, will have the proper frame of mind or reference for operating under mission command in any organization and will seek to apply new or modified skills and competencies. Adaptive leadership is an accepted leadership practice that facilitates leading in a difficult and changing environment. In this environment, one encounters adaptive and hybrid threats, leading to changing and evolving tactics, techniques and procedures across the spectrum of conflict.⁶⁴ Based on operational experience, Wong states that adaptive leaders learn to live with unpredictability, spend less time fretting about the inability to establish a routine or control the future and rather focus on exploiting opportunities.⁶⁵

The preceding links closely with the requirements set by the context in which SA Army leaders function and confirms the necessity for an SA Army definition of adaptive military leadership. Adaptive military leadership for the SA Army can thus be described as the constant ability of a leader to influence people at the right time and place through his or her skills and innovative solutions based on experiences and understanding of past situations, through critical analysis of the current situation, and adapting behaviors to meet the new situation’s requirements and ultimately achieve the set military objectives.

Top SA Army leaders need to be open-minded, knowledgeable on a variety of aspects, multi-skilled, flexible, adaptable, innovative and willing to take risks when placed in command. They furthermore need to be able to see the bigger picture, stay away from micromanaging and be able to see the relationship between aspects that on the surface do not seem to be related at all. Hence the element of situational awareness comes into play. They need to have excellent communication skills to enable them to convey the purpose and outcome of change that is required to their subordinates, while

inspiring confidence in pursuing the altered pathway. These leaders also need to understand the military context and be able to adapt their responses to the requirements of that environment. With this in mind, they need to be able to alternate effectively from one operation to another across the spectrum of conflict (see Figure 9.2).

CHARACTERISTICS OF ADAPTABLE LEADERS

It is clear that being an adaptive leader is challenging and can be difficult. Being an adaptive leader requires certain characteristics. There is no unequivocal evidence that adaptability can be taught, but because it is viewed as multidimensional, a variety of individual characteristics related to adaptability can be identified and enhanced through training, of which knowledge and experience are the best known.⁶⁶

- *Personality traits* related to adaptability are self-efficacy, resilience, openness to experience and achievement motivation, as well as other personality variables including internal locus of control, sense of coherence, a tolerance for ambiguity and willingness to learn.
- Some *cognitive skills* related to adaptability have also been identified, namely general cognitive ability, problem-solving and decision-making skills, as well as meta-cognitive skills (awareness of one's own knowledge, and the ability to understand, control and manipulate one's own cognitive processes). Critical thinking and problem-solving skills are closely related, since military leaders must be able to think critically and analytically during problem-solving.⁶⁷ This also links to leaders being inquisitive, curious and able to draw on different inputs during decision-making.⁶⁸
- *Interpersonal skills* related to adaptability include a variety of communication skills such as negotiation skills, conflict-resolution skills, persuasion skills, and verbal and nonverbal communication skills. These communication skills also apply specifically to a multicultural environment. Another interpersonal skill is self and other awareness, implying awareness of oneself and other parties in an interaction and might include awareness of the constraints imposed on the situation. This also relates to the concept of emotional intelligence.
- Lastly, *domain-specific knowledge and experience* are viewed as key elements in being able to respond adaptively. This includes

SOUTH AFRICA

technical knowledge of the equipment one works with or of specific aspects such as emergency care, and various mental models that will assist one to determine causal relationships among events in a domain. Linked to this is experience, in view of its critical role in the acquisition of knowledge. The more situations individuals have been exposed to, the more likely they are to have a frame of reference from which they can match or merge the current situation with past situations to determine an appropriate response, even under stress or pressure. Thus, it appears that the experience of adaptability can improve adaptive performance. It is however important for the individual to change his or her mindset in order to improve performance.

In addition to the abovementioned skills or traits, adaptable leaders need to be *visionary*⁶⁹ (demonstrating the ability to formulate and articulate a realistic and credible view of the future that is more attractive than the present), especially in the context of the ABS. Military leaders also need to display *military hardiness*, which is the proposed concept for adapting psychological hardiness to the military context.⁷⁰ The psychological hardiness model (which can be viewed as the military hardiness model in the military context) consists of three dimensions: commitment, control and challenge. *Commitment* refers to the ability to feel involved in the activities of life as opposed to isolation. People with high levels of commitment are more interested in what is going on around them, more attentive, and thus more likely to perceive different aspects of situations, as well as to envision multiple possible response alternatives. *Control* refers to the belief that one can control or influence events of one's experience. This leads to greater adaptability, since people with high levels of control approach novel situations with the belief that they can respond well and influence outcomes. *Challenge* refers to receptivity to variety and change⁷¹ which should facilitate greater adaptability,⁷² as challenge involves appreciation for variety and change in the environment, and motivation to learn and grow by learning new things.⁷³ Bartone,⁷⁴ in a study of West Point freshman military cadets, found that commitment and control were significant predictors of adaptability of junior officers seven years later, judged by both self-ratings (commitment and control) and supervisor ratings (control).

Adaptive military leaders also need to display *situational awareness*. This refers to various cognitive processes that include perception, memory and schemas in the decision-making process.⁷⁵ It is important to understand how external events and organizational culture influence job performance,

attitudes, decision-making and organizational change.⁷⁶ This implies that effective military leaders are always in tune with their environment. Situational awareness is thus a process where military leaders evaluate the information available to them, make adjustments to their approach and style, and plan to achieve success in general or in the military context, resulting in “mission success.”

THE SA ARMY’S QUEST FOR ADAPTABLE LEADERSHIP

The question arises: what does the SA Army currently have in place to address the need for adaptable leaders? Is the current situation in the SA Army aligned with the requirements for adaptable leadership in this context, with specific reference to the ABS? Is enough being done to address the need for adaptable SA Army leaders? What still needs to be done? The SA Army has its own leadership paradigm and it is necessary to determine whether it is addressing adaptable leadership. The next section will explain the SA Army’s accepted leadership model.

THE SA ARMY LEADERSHIP MODEL

According to a former Chief of the South African Army, Lieutenant-General Gilbert Romano, there is no better example than South Africa for the forging of a new leadership paradigm.⁷⁷ This paradigm resulted in a new leadership view that is a blend of cross-cultural attitudes, philosophies and behaviors unique to Africa. Philosophies such as *ubuntu*,⁷⁸ morality, humanity, compassion, care, understanding and empathy, were also incorporated into shared values, resulting in military professionalism, honour and patriotism. In the SA Army, this new paradigm is operationalized in its doctrine on military leadership through the introduction of the “clover model.”⁷⁹

THE CLOVER MODEL

The clover model is graphically represented in Figure 9.4. This model integrates leadership, command, management and public administration in the context of philosophy, practices, policy and plan, as follows:

SOUTH AFRICA

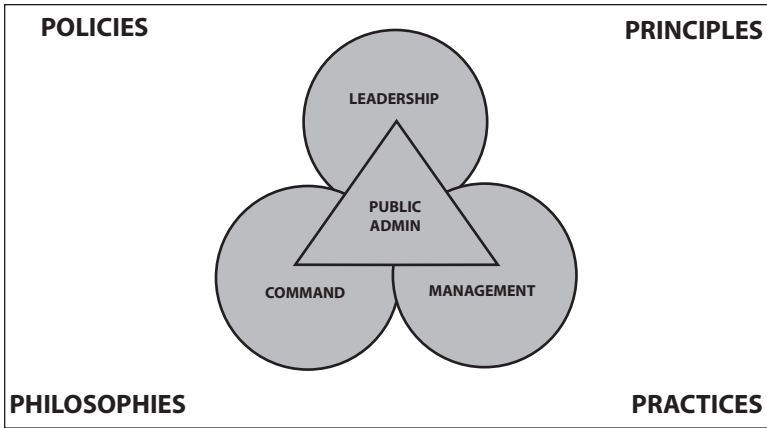


Figure 9.4: SA Army Clover Model

- *Public Administration*, which contains the prescriptive guidelines from the government on the way in which departments of state are to be administered and managed in order to achieve goals. These activities can include policy-making, logistics, finances and staffing, and provide overarching guidance for the leadership, command and management functions.
- *Command* (also referred to as “the head”) is strongly tied to the military environment and has legal and constitutional status. In the SANDF mission, command is the system of choice. Command is defined as: “the legal authority vested in a person in accordance with his or her appointment over assigned forces and/or resources in order to carry out the mission.” The main functions are appreciating situations, judging, making decisions and ordering.
- *Management* (also referred to as “the body”) is strongly rooted in the prescripts and principles of public administration, as embodied in the South African constitution. Management is defined as “applying technical skills to achieve set objectives according to set processes through the efficient and effective use of resources.”⁸⁰ It includes planning, organizing, motivating, coordinating and controlling the processes and activities of combined resources.
- *Leadership* (also referred to as “the heart”) refers to the unleashing of people’s potential to respond to encounters in extraordinary ways.

It is defined as “the act of directly or indirectly influencing others, using formal or personal attributes, to act according to the intent or a shared common purpose.” It is especially in the military leadership situation that leadership becomes a vital element. The reference to “unleashing the potential of people to respond to all challenges in extraordinary ways,”⁸¹ suggests an element of adaptability.

The context within which the clover model is set refers to the changing environment, as well as internal and external cultures. The context will continuously determine to which side of the clover to focus. It is suggested that external cultures will influence and initiate change in the internal culture of the organization which, in turn, will impact on leadership, command and management practices within the SA Army. However, during clear operational or accounting tasks the emphasis could be more on commanding and/or directing, whilst in situations of change and uncertainty, the weight may shift more toward leadership. In the achievement of clear goals according to set procedures, the emphasis will thus be more toward management.⁸²

The context is an important aspect that needs to be considered when discussing adaptive leadership. From an analysis of the context one can obtain an understanding of what behaviors might be required to function optimally in the particular context, as well as the job knowledge that military leaders require to perform these behaviors successfully. From this understanding one can design training interventions or a leadership philosophy or framework that can address the development and enculturation of adaptive leadership. When analyzing the unique military environment combined with the dynamic and constantly changing battle space, it can thus be concluded that military leaders in the SANDF will function in a continuously changing environment and internal and external cultures that will continuously require them to shift toward different parts of the clover model. Hence, in order to function optimally, the military leader will be required to adapt his/her leadership to what he/she is confronted with.

The SA Army furthermore acknowledges that leadership can be observed in leader behaviors or actions and that it can be learned as well. The model chosen is described as the Full Range Leadership Model that covers a whole range of leadership styles from the transactional style through to the style of transformational leadership, which is viewed as the most active and effective style. This approach of transformational leadership is encouraged through the presentation of leadership awareness programs. The transformational leader will more frequently move away from transactional leadership styles such as *laissez faire*, management by exception and contingent reward

SOUTH AFRICA

toward transformational leadership styles, resulting in the so-called “four I’s” of idealized influence, inspirational motivation, intellectual stimulation and individualized consideration.⁸³

There is some criticism against the Full Range Leadership Model in that it is “useful but has some significant limitations”.⁸⁴ The model itself is viewed as useful for highlighting the appropriate leadership styles and distinguishes between the most effective and ineffective ones. The main criticism is that it does not adequately address other military considerations, such as the level at which leadership is exercised (tactical vs operational vs strategic), the different demands of combat, the development level of the followers and “other specific situational factors.” This emphasizes that it does not address the “context” as mentioned in the first part of this chapter. In terms of adaptability, a recent study by Li and Huang⁸⁵ found that transformational leadership has a significantly positive effect on six dimensions of adaptive performance, namely stress management, innovative behavior, cultural adaptation, continuous learning, international adaptability and crisis management. When these results are compared with the dimensions in Figure 9.2 in this chapter, one can say with confidence that the SA Army has selected a model that contributes to adaptability. These dimensions are formalized in doctrine in terms of the SA Army Leadership, Command and Management Manual.

LEADERSHIP ASSESSMENT AND DEVELOPMENT

The SA Army established an SA Army Assessment Centre as well as a Leadership Development Wing. These organizations focus mainly on the assessment of leadership, which is then followed by leadership development. They provide services to a wide spectrum of SA Army leaders, including junior leaders (junior officers and non-commissioned officers), warrant officers, unit commanding officers, regimental sergeant majors, defense attachés and personnel functioning on the military strategic level (senior colonels and generals). Some of the focus includes visioning, planning, organizing and control, decisiveness, influencing, adaptability, communication, functioning under pressure, leadership, planning, problem-solving and resilience.⁸⁶ Many of these dimensions are elements of adaptive leadership. By developing these dimensions or competencies in training or development programmes, the SA Army has already made progress toward the development of adaptive leaders.

The SA Army also has a recruitment system referred to as the University Reserves Training Programme. It is an SANDF initiative geared at enhancing

the intellectual and professional depth of the reserve forces leader group by recruiting and training undergraduate students from tertiary educational institutions. It is also a potential source of human capital for the regular force. These members are also assessed by the SA Army Assessment Centre although, because of time constraints, not in as much depth as the members of the regular force.

The need for adaptable leaders is further emphasized as part of SA Army Vision 2020. One of the aims is to ensure SANDF readiness through developing a more flexible force that is multi-skilled. Various skills should be taught to ensure that, for example, a soldier employed in a peacekeeping role is able to deal with conflict situations as well as engage in tasks such as negotiations and post-conflict reconstruction activities.⁸⁷ This demands that leaders be able to function in dual roles and they should be able to adapt their interpersonal relationships and leadership style to meet the specific situational demands.⁸⁸

From the above it is clear that the SA Army is aware of the need for adaptable leaders and has adopted a leadership philosophy that is oriented toward adaptive leadership. The future vision and the selection and training processes in the SA Army are also oriented toward developing adaptable leaders. With an understanding of what the SA Army has done to propagate adaptable leaders, the next logical step will be to answer the question: What should be the way forward for the SA Army?

THE WAY FORWARD FOR THE SA ARMY

There are a number of options that the SA Army can consider in optimizing the development of adaptable leaders. Metaphorically speaking, these options for developing adaptive leaders can be related to the life cycle of man from inception to death. Muller-Hanson refers to this as “from the cradle to the grave.”⁸⁹ Inception can refer to that stage when talent that will suit the military is identified at school or tertiary institutions. The cradle refers to the selection process. Once the candidate has been selected and appointed, this should then be followed by a substantial investment in an integrated training and development system, also from the “cradle to grave.” It should not exclude other interventions, such as research and stimulating the debate on adaptive leadership. The following are some recommendations worth considering for the way forward.

SOUTH AFRICA

Talent Identification

Talent identification refers to the recognition of a natural endowment or ability of superior quality. Once all the facets of adaptive leadership have been identified, talent identification should be targeted at high school pupils and university and college students. At the high school level, students should be exposed to the military environment and its variety of career options. This should stimulate their subject choices early on to ensure successful career paths in the military. University and college students should be introduced to military career options that can be aligned with their current study options. Pupils and students who clearly display an interest in the military and who are identified as potential future soldiers should be recruited expeditiously into the SA Army. It must be recognized that talent identification is multifaceted and complex, and not a one-time activity.

Recruitment and Selection

In terms of the “cradle” part of the process, one of the first places the SA Army needs to look at when it wants adaptable leaders is its recruitment and selection processes. One needs to select junior leaders (both officers and non-commissioned officers) who are most likely to develop into adaptable leaders.⁹⁰ The SA Army thus needs to ensure that leader candidates are selected specifically for their individual characteristics related to adaptability. Once they are in the military, they then need to be continuously trained and developed to maximize adaptive performance.

Training and Development

Some interesting findings were made in a study in the US on the enhancement of military leaders’ adaptive performance.⁹¹ Noteworthy for the SA Army are two important training principles that are particularly crucial with respect to training adaptive performance. The first is the finding that experience is an important predictor of adaptive behavior and the second is the importance of an iterative process of practice and feedback, where practice is a necessary part of the development. These principles can be applied in institutionalized training, operational experience and self-development. The SANDF, through its Joint Training Division, have the potential to address these aspects.

- *Optimum Number of Opportunities.* Training interventions should incorporate as many opportunities as possible for emerging leaders to be exposed to situations requiring adaptability. Mullar-Hanson et al. state that whether simulated or real, this exposure will allow

the individual to start to build his or her own catalogue of experiences from which to draw on in the future, thus speeding up the acquisition of expertise.⁹²

- *Iterative Process of Practice and Feedback.* An iterative process of practice, feedback, and practice is a necessary part of development. Individuals should have the opportunity to practice new skills, obtain feedback on their results, and apply what they have learned from this feedback in subsequent practice sessions.⁹³

Adaptive leadership behaviour can be developed through training programs that include aspects such as communication with followers, techniques to deal with unpredictability and solving problems in a creative way.⁹⁴ Essentially, when an adaptive leader is faced with a challenge, the combination of realistic training and developed competencies will foster innovative ideas to solve complex problems.⁹⁵ In essence, the training of adaptive leaders has to start with junior leaders, to develop them into creative, innovative and independent leaders. This will accustom them to operating independently, taking the initiative and adapting to changes.

The US Army leader development model proposes that leader development should occur in three interchanging spheres: operational experience, self-development and institutional training. Research has consistently indicated that these spheres prepare leaders for future leadership roles.⁹⁶ A typical formalized training program can include aspects such as understanding what adaptable leadership is, the need for it, contextualizing it to the SA Army, understanding mental adaptability, interpersonal adaptability and developing the ability to lead an adaptable team. The SA Army also has to ensure that it creates a feedback system allowing military leaders to get feedback after or during training sessions, field exercises and deployments on various dimensions required by adaptable leaders.

Research and Development

By integrating research on adaptability with research on effective training principles, the SA Army can develop adaptive leaders through institutional, operational and self-developed methods. These methods could include programs of instruction in the classroom and in the field and part of self-development programs.⁹⁷

SOUTH AFRICA

Organizational Policy and Doctrine

Prescriptive documents need to be developed to ensure that SA Army leaders are exposed to adaptability training throughout their careers. This includes at the start of their careers through classroom and field exercises, during the early part of their careers through operational experience and feedback mechanisms, and during their careers through ongoing professional development. Based on observations made by Cojocar⁹⁸ on US doctrine, it can be said that the current SA Army leadership doctrine⁹⁹ is becoming outdated. It also needs to address more specifically what adaptive leadership is, should provide tools for being adaptive and, importantly, should also address methods to be implemented it as part of the military decision-making process. The SA Army should adapt the human resource component to support diverse experiences. The organizational leaders' talents must be managed on an individual basis. The development of effective mentorship programs will also facilitate this function.¹⁰⁰ Thus, the gaps in existing policies and doctrine should be identified and addressed.

Stimulating the Leadership Debate

An effort should also be made to invigorate the debate on adaptive leadership among those who on a daily basis find themselves in the "leadership situation." The SA Army should demonstrate the value of education, thinking and writing¹⁰¹ by encouraging its leaders to research, write and publish on adaptive leadership. In this regard, the SA Army Annual Writing Competition can already be viewed as a step in the right direction if the relevant themes are identified. Students at tertiary institutions such as the SA Military Academy, the SA National War College and the SA Defence College can be encouraged to write articles and papers and broaden the literature regarding adaptable leadership in the SA Army and in the SANDF as a whole. Conferences and seminars could also be arranged to serve as a platform on which the leadership debate can be encouraged between all members of the SA Army.

The preceding discussion and suggestions are supported by a recent study on military assignment effectiveness among leaders deputed to the United Nations. This study confirmed that in recruiting and selecting the right leaders, modern training and high motivation can facilitate environmental adaptation and thus improve adaptive performance.¹⁰² Furthermore, a number of options are available to optimize adaptive leadership, ranging from human resource practices to formalized debates. It is clear that there should be ample opportunities for individuals to practice their adaptability-related skills in a

variety of settings and to obtain feedback from a variety of sources. These are some of the low-cost and potentially high-yield first steps in embedding adaptable leadership in the SA Army. In this process support from the whole organization is also needed.

CONCLUSION

Current changes in the world place more emphasis on being adaptive. Competent, confident and highly skilled military leaders are required at all levels in the SA Army, at both the officer and non-commissioned officer levels. The need is not limited to only the macro-environment; it is also evident in the micro-environment where military leaders have the added task of developing adaptability in their units and encouraging and rewarding adaptive behavior. In this way everybody can work together in a coordinated manner. Not every post and every instance requires adaptability, but it needs to be inherently part of or ingrained in the psychological make-up of the SA Army leader. This preferred leadership style is referred to as adaptive leadership, which is a new concept in the SA Army, although the underlying principle has been around for quite some time.

Adaptability is a complex construct and is not mastered through a single course or a few training exercises. It needs to be the focus from the cradle to the grave (from the SA Army leader's start in the military throughout his or her career). In order to ensure that military leaders behave in an adaptable fashion, the SA Army needs to ensure that leader candidates are recruited and selected specifically for their individual characteristics related to adaptability. Training and development programs should address improving adaptability-related skills and lastly, organizational policies and practices should support *inter alia* creativity and appropriate risk-taking among leaders. For the execution of future operations, leader development should be a continuous, progressive and sequential process that embeds the skills, knowledge and behavioral characteristics required for adaptive leaders. Without this, the SA Army will not be able to face the full spectrum of military operations looming in the African battlespace. With adaptable leadership in place, the SA Army will gain a critical competitive advantage.

ENDNOTES

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99. South African Army, *Leadership, Command and Management Manual*.
100. Major Joseph Bruhl, "Gardener-Leaders: A New Paradigm for Developing Adaptive, Creative, and Humble Leaders," *Military Review* (July - August, 2012): 41-45.
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102. Al Shdaifat, et al., "Adaptive Performance on Military Assignment Effectiveness Among Leaders Deputed on United Nations Missions," 86-90.

CHAPTER 10

ADAPTIVE LEADERSHIP DOCTRINE FOR THE INDONESIAN ARMY TRANSFORMATION

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INTRODUCTION

The changes occurring in the strategic environment today have created new types of threats and increased the complexity of the conduct of warfare. This is especially the case with the emergence of new forms of non-conventional warfare, such as hybrid warfare.¹ These changes have influenced the leadership of the Indonesian Army (*Tentara Nasional Indonesia Angkatan Darat*; TNI AD) and inspired them to transform their army into a “World Class Army” by 2024. As mandated by the current Chief of Army, General Budi-man on 15 January 2014, the TNI AD will be undergoing a transformation project in the next five years (2015-2019), based on a five to ten year projection (2015-2024) of the strategic environment.² These long term plans will produce a blueprint which takes into account the changes in the threats to the Indonesian defence system, technological advances, societal changes and Indonesian economic growth for the next 10 years. These projections will then be translated into transformation projects in the three main capabilities of the TNI AD: combat, territorial building and support capacities.

As a defensive force, the TNI AD must not only possess the combat ability to neutralize any future threats to the national strategic interests of the country, consistent with its unique territorial doctrine, the TNI AD must also be able to strengthen its territorial building capacity in order to prepare the future territorial environment that will be beneficial for a total defence strategy.³ In this regard, the ability to transform the combat and territorial functions will be dependent on the successful transformation of the support function. Therefore, in the Indonesian Army’s transformation program, the TNI AD

* The views expressed in this chapter are those of the authors and do not necessarily reflect those of the TNI or the TNI AD.

INDONESIA

plans to build up a support system which will enable the organization to produce its defensive capabilities in an effective and efficient manner. Included in this scheme are transformation programs in the various support functions such as intelligence, operations and training, personnel, logistics, budgeting, legal, information technology and applied psychology.

Consequently, the Psychological Service of the Indonesian Army (*Dinas Psikologi Angkatan Darat*; Dispsiad), as the TNI AD's institution responsible for performing the psychological role of the support function, must also formulate an Army Psychology Transformation program. As a unit responsible for the optimal maintenance of leadership psychology in TNI AD units, the leadership of Dispsiad has decided to establish a leadership development centre as one of the Army Psychology Transformation projects.⁴ Due to the fact that a modern development center would also require a corresponding leadership framework, it is imperative that Dispsiad participate in formulating a more adaptive leadership doctrine that is in line with the recent development in the behavioural sciences and the vision and mission of the Army Transformation 2015-2024.

Literature reviews of leadership doctrine in the Indonesian military have showed that the TNI AD's current leadership concept was developed during the 1970s. At this time, the TNI AD conducted a national seminar to pass the values that were forged during the 1945 War of Independence from the "1945 generation" officers to the younger officers who did not experience this war.⁵ One of the products of this seminar was the Eleven Principles of Leadership of the TNI (*Sebelas Asas Kepemimpinan TNI*), which provided TNI officers with a doctrinal guideline on how to behave as leaders. Previous research by Dispsiad showed that the eleven principles should be refined further in order to conform to more recent trends in the psychological literature. Therefore, one of the proposed goals of the Psychology Transformation program is the re-evaluation of the TNI AD's leadership doctrine.

This chapter will explain the history and conceptual development of the current Indonesian Army's leadership doctrine, the plan to transform this doctrine into a more adaptive and modern competency-based doctrine, and the establishment of the army's leadership center.

THE ELEVEN PRINCIPLES OF LEADERSHIP

According to Lieutenant General (retired) Sayidiman Suryohadiprojo, one of the founding fathers of the Indonesian Army, the term leadership only appears in the Indonesian military in the 1950s, after scores of TNI AD officers

returned from military training in the United States.⁶ Prior to that time, Indonesia was under Dutch rule and the leadership paradigm, including military leadership, followed the trends in the Netherlands. According to General Suryohadiprojo, in the Netherlands leadership (*leiderschap* in Dutch) was considered to be a trait-like ability that was not developed by education or training: i.e., a leader was born a leader. This was the dominant line of thinking in Western Europe and consequently other concepts of leadership were not discussed much in the Netherlands.⁷

On the other hand, officers found that in the United States, leadership was considered more as a state-like ability that could be developed: i.e., a leader is made, not born. This was in line with the psychological teachings of behaviourism that were more dominant in the United States at that time.⁸ This meant that some sort of leadership training was required based on leadership theories that can teach the student how to apply leadership principles in the field. It was these leadership theories that were taught at the United States military training centers, which were attended by TNI officers. Consequently, when they returned to Indonesia, it was only natural that they brought with them the lessons that they learned from abroad.⁹ However, after around two decades implementing the leadership theories that were brought from the United States, the TNI AD was able to formulate leadership principles that were based on the historical and cultural values that existed in Indonesia.¹⁰

The TNI AD itself was born as a citizen army's out of Indonesia's War of Independence that took place between Indonesia's declaration of independence on 17 August 1945 and the transfer of sovereignty to the Republic of Indonesia from the Netherlands on 27 December 1949. This war lasted over four years and involved bloody armed conflicts between the newly formed TNI and the more technologically advanced Dutch forces that had substantial combat experience from the Second World War. It was during this period that the "1945 values" were established and formed the core identity of the TNI AD.¹¹ With the 1945 era officers diminishing in numbers, the TNI AD leadership was concerned with the question of how to pass on their values to the younger officers. The TNI AD, being the dominant service in the TNI, conducted a series of national seminars at the TNI AD's Staff and Command School. The end product was the Indonesian Armed Forces Defence Doctrine, called Four Missions, One Sacred Deed (*Catur Dharma Eka Karma*).¹²

During the second seminar, which was held in August 1966, the TNI AD leadership discussed the leadership styles of the venerated TNI Supreme Commander, General Sudirman, and his deputy, General Urip Sumoharjo, when they led the fledgling republican army against the Dutch colonial forces

INDONESIA

during the War of Independence.¹³ It was at the third seminar, held in the March 1972, that the unique leadership principles indigenous to the TNI AD were officially formulated. At this seminar, the participants decided to conceptually define the leadership principles for Indonesian military officers based on the national values of Indonesia, especially the state ideology of *Pancasila*. *Pancasila*, or the Five Pillars, refers to the notion that the daily life of Indonesians should be guided by five principles: belief in one God Almighty; humanity; unity of Indonesia; democracy guided by consensus; and social justice. The result was the eleven leadership principles of the TNI (11 *Asas Kepemimpinan TNI*).¹⁴

The Eleven Leadership Principles of the Indonesian Armed Forces consist of the following¹⁵:

1. Believing in the Almighty God (*Takwa kepada Tuhan Yang Maha Esa*).

A good leader must have faith and obey the Almighty God. This means an understanding that all men and women have the same position in the eyes of God. This realization will make the leader appreciate that he or she is not a superior person with the power to decide the fate of other people, especially his or her followers. Through piety to the Almighty God, the leader will become a just, honest, truthful, persevering, patient and humble person.

2. Leading From the Front by Providing the Right Example (*Ing ngarso sing tulodo*).

Philosophically, this principle means that a good leader is a person who has the courage to lead in front of his or her followers, facing uncertainty and danger. He or she must be able to work the hardest, instilling discipline, and leading by example. A good leader must also have wisdom when providing guidance, advice, and consideration. In practical military terms, this principle instructs military leaders to be proficient in technical and tactical military matters and demonstrating this proficiency to their followers.

3. From the Middle Building Motivation and Volition (*Ing madyo mangun karso*).

A good leader must be the driving force from the middle, willing to be together side by side with his or her followers, uplifting their fighting spirit, motivation and work ethic. In military terms, this means that

the leader is willing to understand the hardships faced by the troops, is ready to participate with them in dangerous missions, and can feel deeply the sorrowful events experienced by the followers.

4. From Behind Encouraging Initiative (*Tut Wuri Handayani*).

At the right moment, a good leader must be able to stand behind their followers. He or she must be willing to give freedom and encouragement so that followers are willing to take the initiative, have self-confidence and not be dependent on the leader. He or she must be willing to provide feedback to the follower based on a sense of accountability and that their work is a joint effort.

5. Power Through Vigilance and Excellence (*Waspada Purba Wisesa*).

A good leader must be vigilant (*waspada*) and use good analysis, assessment and explanation. Excellence (*Wisesa*) means a leader has strength that is derived from wisdom. Power (*Purba*) means a leader must be able to control all his or her strength. Essentially, the fifth principle says that a good leader derives power from his/her clear vision and ability to control his/her strengths.

6. Having a Sense of Priority (*Ambeg Paramarta*).

In Sanskrit, *ambeg* means trait, while *paramarta* means knowing the essence of what is important. A good leader must have a sense of justice and be able to differentiate between important and unimportant matters. He or she must have a sense of priority to be able to choose what must come first and what must come later. In other words, a sense of priority allows their decisions to be seen as just.

7. Having a Sense of Modesty (*Prasaja*).

A good leader must have a sense of modesty, transparency, honesty, sincerity, truthfulness and tolerance. He or she must not live in opulence and not be greedy.

8. Having a Sense of Loyalty (*Satya*).

A good leader must be loyal, able to keep his or her promises, and show congruency between his or her words and deeds. He or she can be trusted because he or she is honest and straightforward. Therefore, he or she is considered as loyal to his or her superiors, subordinates and peers.

INDONESIA

9. Thrifty (*Gemi Nastiti*).

A good leader is thrifty and careful with spending. He or she must be able to do all work in an effective and efficient manner, and be thorough in managing all the resources entrusted to them. Therefore, he or she can consciously live frugally by limiting spending and allocating resources for real current needs to save for future emergencies.

10. Open and Honest (*Belaka*).

A good leader must be open, communicative and willing to give the follower the opportunity to provide input, advice and constructive feedback. He or she is not ashamed to learn from the environment and from his or her subordinates in order to improve themselves.

11. Sincere (*Legowo*).

At any time, a good leader must be willing to bear sacrifice. Facing defeat and disappointments, he or she must be able to rise up to face the challenge again. When the time comes, he or she is willing to hand over responsibilities and positions to the next generation of leaders.

The second up to the sixth principles, which were proposed by General Kusno Utomo, one of the few TNI AD officers who graduated from the *Koninklijke Militaire Academie* – KMA (Dutch Military Academy), were based on the leadership philosophy of the ideal Javanese knight. These were in turn derived from the teachings of Ki Hadjar Dewantoro, an Indonesian national hero in the field of education.¹⁶ The rest of the principles were formulated by the seminar participants based on a mixture of values from the Javanese ethical codes and the state ideology *Pancasila*, in addition to the leadership behaviours of military commanders under General Sudirman.¹⁷

In the early 1980's, the Chief of Army, General Rudini, ordered the Head of Dispsiad, Brigadier General Soemarto, a graduate of the University of Bonn, to evaluate the eleven Leadership Principles of the TNI, through the scientific lens of psychology.¹⁸ General Soemarto and his team concluded that the eleven Leadership Principles consisted of traits, behaviours, and values. Consequently, they recommended a reformulation of the principles so that it could become a better guideline for TNI soldiers. This recommendation had not been followed up until recently, when Dispsiad was invited to join the Transformation Project, as part of the Support Function Transformation.

ARMY TRANSFORMATION 2015-2024

The senior leadership of the TNI AD realized that the strategic environment that the TNI AD operates has changed drastically since the last time the TNI AD leadership doctrine had been formulated. Not only has the world become more multipolar, with the rising influence of China and India, but Indonesia itself is predicted to join the rank of middle income countries, forecast to be the world's seventh largest economy by 2045.¹⁹ Through the lens of capability-based development, the TNI AD is currently reformulating its doctrine and organization, modernizing its weapon systems, developing the quality of its human resources, enhancing international cooperation and strengthening their bond with the people. With these efforts, it is hoped that by 2024, the TNI AD would become a "World Class Army" that is "*professional, modern, effective and efficient, militant, loving the people that it serves and in turn loved by the people.*"

This new army vision was created by members of the Army Transformation Task Force who were mostly recruited from the best graduates of each cohort of the military academy, from the rank of Captain to Lieutenant General, in order to ensure the sustainability of the transformation program into the future. During their working sessions, they realized that in order for the army to be relevant for the defence of the nation, they must create a future organization that is more adaptive to the changing strategic environment, and turn the officer's traditional inward looking mindset into a more international focus. More importantly, they also accepted that a more adaptive leadership doctrine is required that can act as the unifying factor that will integrate TNI AD's future combat and territorial capabilities.

One of the aims of the transformation is the creation of an effective support system that can multiply the army's capabilities. In this regard, Dispsiad has been tasked to formulate the Psychology Transformation 2015-2024. Apart from strengthening the traditional functions of selection, assessment, and development of the Army's human resources using the Human Resources Competency-Based System, Dispsiad has also been tasked to write up an appropriate leadership doctrine that is more adaptable to the latest advances in the behavioural sciences and the vision and mission of the Army Transformation 2015-2024. Currently, Dispsiad, in cooperation with other TNI AD units, has been running an assessment system based on modern scientific principles. The following is an example of the competency framework for field commanders (Figure 10.1).

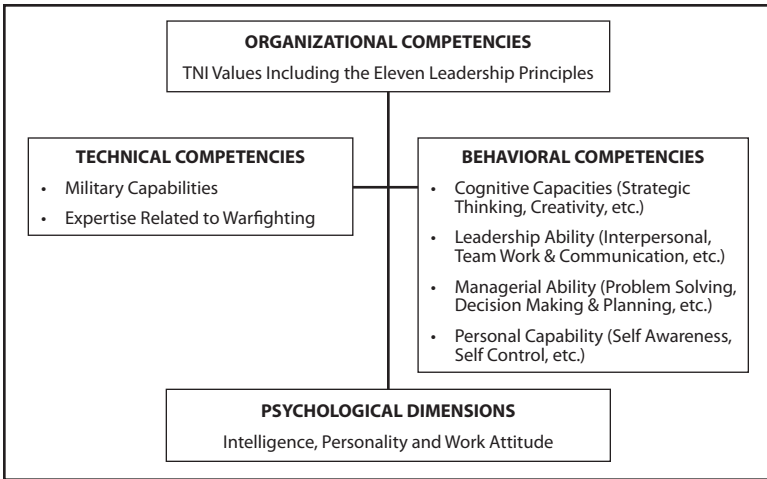


Figure 10.1: Competency Framework of TNI Field Commanders

Based on this framework, different Army units are responsible to implement assessment and development programs. For instance, each Corps and Branch is responsible for the technical competencies, Dispsiad is responsible for the behavioural competencies and psychological dimensions, and the Mental Guidance Service of the Army (*Dinas Pembinaan Mental Angkatan Darat; Disbintalad*) is responsible for the values-based competencies. As can be seen from Figure 1, the Eleven Leadership Principles are treated more as values and consequently they are not being assessed like the behavioural competencies or the psychological dimensions. On the other hand, the framework does include assessable behavioural competencies related to leadership and managerial abilities. In addition, the psychological dimensions that are being observed take into consideration personality traits that can support leadership potential.

In terms of leadership assessment, Dispsiad conducted a competency test called the *Program Penilaian Kompetensi Jabatan* (Position Competencies Assessment Program; PCAP). This program was first introduced in 2004 by the Chief of Army, after officers from Dispsiad conducted benchmarking studies on the competency framework of civilian and military organizations both in Indonesia and in other countries. The behavioural competencies were assessed using the Assessment Center method. In addition, the psychological traits for the candidates were also evaluated through traditional paper-and-pencil tests. Starting from 2014 onward however, after collaboration

with the Psychological Service of the German Armed Forces (*Psychologischer Dienst der Bundeswehr*), in lieu of the paper-and pencil tests, Dispsiad will use Computerized Aided Tests (CAT), including both adaptive and non-adaptive items.

At the moment, although the TNI AD has implemented various leadership development programs, they are not done in an integrated manner. For example, candidates who pass the PCAP test, will attend courses at the respective training centers. The content of the majority of these courses are mostly related to the technical competencies, with some materials related to the behavioural and institutional competencies. For example, for the behavioural competencies, Dispsiad is usually allocated a maximum of ten hours of lecture time for addressing the leadership competencies required on certain courses. Similarly, for the values-based competencies, lecturers will try to inculcate soldiers with the TNI values by delivering materials related to TNI AD values under the *Kejuangan* or the Warrior Code modules. The students are then evaluated based on assignments on the topics, participation in the class discussions and observation by the lecturers.

Currently, however, the need to develop the leadership competencies is becoming more relevant and pressing, especially since the new TNI AD doctrine called *Kartika Eka Paksi*, has replaced the old doctrine of *Catur Dharma Eka Karma*.²⁰ The new doctrine states that the main functions of the Army are in Territorial Capacity Building (*Pembinaan Territorial*) and the more conventional combat role. Since these two functions at certain level would require two different sets of leadership competencies, specific development programs must be designed for each leadership position, which can incorporate indigenous TNI AD values.

To achieve the objectives of Psychology Transformation 2015 – 2024, Dispsiad has formed an internal task force. The Psychological Development Institute (*Lembaga Pengembangan Psikologi - Labangpsi*) is the lead in reformulating a new leadership framework that is more adaptable with the recent findings in the behavioural sciences and the vision and mission of Army Transformation 2015-2024. For instance, the task force will follow up on the previous study that found the Eleven Leadership Principles consisted of traits, behaviours and values. They will attempt to create a new leadership competency framework that will incorporate elements of the Eleven Leadership Competencies in a leadership framework consisting of psychological dimension plus behavioural and values-based competencies. In addition new leadership capabilities in line with the requirement of Army Transformation 2015-2024, must also be adapted into the competency framework. In addition, as a post

INDONESIA

assessment program, Dispsiad is planning to establish an Army Leadership Center, which will deliver training and one-to-one coaching programs for future leaders.

The Psychology Transformation program in leadership will start in 2015 with the procurement of relevant leadership literature both from Indonesia and abroad, military and civilian. Considering that most leadership literature comes from the West, while Indonesia has very different culture, Dispsiad should procure as many sources as possible, especially from Indonesia's own resources, as well as from other non Western countries. In addition, a web-based 360 multi-rater assessment system will also be procured which will be used to evaluate a leader from his or her superior officers, subordinates and peers.

The next step will be to develop the new leadership framework through surveys of successful leaders in combat and territorial units. This will identify the criteria for success in various leadership positions. These surveys will utilize a multi-rater assessment system administered anonymously, in order to produce more objective results. Afterward, Dispsiad will conduct workshops and seminars, both internal and external, so that a draft of the leadership framework can be created. This initial framework would then be used as a benchmark against similar leadership frameworks from military organizations of other countries. At the end of this step, the framework should be verified by academics from the behavioral sciences. It is estimated that the activities in this second step would last for about two years, starting in 2016 and end in 2017.

In 2018, approval of the new leadership doctrine will be sought from the TNI AD. First of all, Dispsiad would present the initial framework to the TNI AD leadership. Then, based on the feedback from the leadership, Dispsiad will reformulate (as required) and then request verification of the new leadership doctrine from the Education, and Training Command of the Army (*Komando Pendidikan dan Latihan Angkatan Darat*; Kodiklatad). This institution will then hold a series of workshops to validate the new leadership doctrine. Concurrently with the Transformation Project, the infrastructure for the Army's Leadership Center will be developed, so that the Centre will be ready and operational by the beginning of 2019.

Considering that Dispsiad personnel have been involved in the delivery of many competency development programs, and they have been exposed to the latest leadership concepts and theories, initially, the Leadership Center will be manned by personnel from Dispsiad. In the meantime, Dispsiad will

also attempt to improve the competency of its personnel with the knowledge, technical skills and strategies needed in the area of training deliveries, including personal coaching for executive levels. For this purpose, Dispsiad will cooperate with military leadership training institutions from other countries. Afterwards, this Center should become independent from Dispsiad and can recruit its own personnel.

CONCLUSION

The Indonesian Army is currently undergoing a transformation process from an organization that is very much influenced by traditional values to becoming a world class army by 2024. One of the aims of the transformation program that is being implemented is the Psychology Transformation, which will create a more adaptive leadership doctrine based on the leading edge research in the behavioural sciences and the vision and mission of Army Transformation 2015-2024. Consequently, one of the most important and difficult tasks will be to reformulate the Eleven Leadership Principles into workable behavioural and values-based competencies that can be used to train and develop future leaders of the Indonesian Army.

ENDNOTES

1. Frank G. Hoffman . *Conflict in the 21st Century: The Rise of Hybrid Wars* (Arlington, VA : Potomac Institute for Policy Studies, 2007), 8. Hoffman defined hybrid warfare as “a full range of different modes of warfare including conventional capabilities, irregular tactics and formations, terrorist acts including indiscriminate violence and coercion, and criminal disorder.”
2. Dinas Penerangan Angkatan Darat [Information Service of the Army]. *Transformasi TNI AD siapkan prajurit yang modern, efisien, efektif dan militan*. [TNI AD Transformation to Prepare Modern, Efficient, Effective and Military Army], January 16, 2014, retrieved February 20, 2014 from <<http://www.tniad.mil.id/?p=3182> on January 16, 2014>. The Army Transformation 2015-2024 program was officially launched on January 15 2014 during the Army's Commander's Call (*Rapat Pimpinan TNI AD*) at the Army HQ, in front of 122 TNI AD's top brass.
3. Guy J. Pauker. *The Indonesian Doctrine of Territorial Warfare and Territorial Management* (Santa Monica, CA: Rand Corp., 1963). Due to its history during the Indonesian War of Independence, the TNI has developed a total defence strategy in the form of the territorial doctrine. While the doctrine has been revised many times, especially since the downfall of the New Order government in 1998, Pauker's writing provided a useful analysis of the doctrine for the uninformed Western readers, including its origin and development. For a more recent discussion of the doctrine, see Eri R. Hidayat, “The Comprehensive Versus the Territorial Approach: Civil-Military Cooperation in the Indonesian Army context,” in Dave Woycheshin and Miriam de Graaff, Eds., *The Comprehensive Approach to Operations: International Perspectives* (Kingston, ON: Canadian Defence Academy Press, 2013), 115-138.
4. *Peraturan Kasad Nomor Perkasad/30/VI/2011 tanggal 20 Juni 2011 tentang Organisasi dan Tugas Dinas Psikologi Angkatan Darat* [Chief of Army Directive Number Perkasad/30/

INDONESIA

VI/2011 dated 20th of June 2011 on the Organization and Duties of the Psychological Service of the Army]. One of the main duties of Dispsiad is in maintaining optimal leadership psychology of army units.

5. Seskoad [Army's Staff and Command School]. *Karya Juang Seskoad 1951 – 1989* [Seskoad's Achievement 1951-1989] (Jakarta : Citra Lamtoro Gung Persada, 1989), 97. During the third TNI AD Staff and Command seminar conducted from 13-18 March 1972 and attended by the TNI top leadership, the participants formulated the so-called “*Dharma Pusaka 45*” [Sacred Guidance 45] which provided a guidance on how the values from the 1945 Indonesia's War of Independence when Indonesia fought its independence from the Dutch Colonial power, should be passed on the new generations of TNI officers who never experienced this war.
6. Sayidiman Suryohadiprojo. *Kepemimpinan ABRI : Dalam sejarah dan perjuangannya* [Leadership in the Indonesian Armed Forces: History and its Role in the Defence of Indonesia] (Jakarta: Intermasa, 1996), 1-2.
7. Martin M. Chemers. ”Leadership Research and Theory: A Functional Integration,” *Group Dynamics: Theory, Research, and Practice*, 4 no 1 (2000), 27. Chemmers discussed the influence of the Scottish Thomas Carlyle's Great Man Theory amongst Western European leadership scientists, in which according to him, “*successful leaders possessed traits of personality and character that set them apart from ordinary followers.*”
8. Ibid, 28. See the discussion on the famous Ohio State study on leadership behavior related to the groupings of consideration versus initiation of structure.
9. Seskoad, op.cit., 29. In fact up to the 1960s, as Seskoad was not ready to develop its own curriculum, most of the training materials delivered at the Seskoad were adopted from materials brought by officers who were trained abroad.
10. Ibid. After the third TNI AD Staff and Command seminar in 1972, almost all of the training materials has been developed indigenously by Seskoad, and materials from abroad is only used for comparative studies.
11. Eri R. Hidayat and Gunawan, “People's Army, Patriotic Army, National Army and Professional Army: History, Challenges and the Development of Core Identity in the Indonesian National Army”, in Jeff Stouffer & Justin C. Wright eds., *Professional Ideology and Development: International Perspectives* (Kingston, Ontario: Canadian Defence Academy Press, 2008), 43-64.
12. Markas Besar TNI [Indonesian Armed Forces HQ]. *Sejarah TNI Jilid IV: 1966 – 1983* [History of the TNI Volume IV: 1966-1983] (Jakarta: Pusat Sejarah dan Tradisi TNI, 2000), 4. At that time, the Indonesian Armed Forces still include the Police Force, therefore the doctrine consisted of four missions.
13. Seskoad, op.cit., 100. See also Markas Besar TNI AD [Indonesian Army HQ]. *Vademikum Seskoad* [Vademicum of Seskoad] (Bandung: Sekolah Staf dan Komando Angkatan Darat, 2012), 74.
14. Nugroho Notosusanto. *The National Struggle and the Armed Forces in Indonesia* (Jakarta: Department of Information The Republic of Indonesia, 1979).
15. From various sources. Among others, see Hadi Kusnan, “Apa kabar Bintel Fungsi Komando ?” [What happened to the Command Function of Mental Guidance ?] *Pinaka Wiratama*, 25 May 2013, 10. This is the magazine of the Mental Guidance Service of the Army, in which Brigadir General Kusnan wrote that the TNI leadership doctrine is basically the same as the 11 principles of leadership. See also Andi Subri. Pemilihan Umum tahun 2014: Pemilih Rasional dan Pemilih Irrasional [Election Year 2014: Rational and Irrational Voters], *Jurnal*

- Legislasi Indonesia*, 9 no. 4 (2012), 519-534. On page 530 – 533, Subri discussed the philosophical meanings of each of the principles based on the original Sanskrit terms, Sanskrit being the basis of the dominant Javanese culture of Indonesia. See also Peter Britton. *Professionalisme dan ideologi militer Indonesia: Perspektif tradisi-tradisi Jawa dan Barat* [Military Professionalism in Indonesia: Javanese and Western Traditions in the Army Ideology] (Jakarta: LP3S, 1996), 152. Here Britton discussed how the TNI reformulated the 11 principles from the original Sanskrit terms.
16. Ibid, 153. On General Utomo, see also Petrik Matanas. (2012). *Pribumi Jadi Letnan KNIL* [Native Sons became KNIL Lieutenants] (Jakarta: Trompet Book, 2012), 116. This book provided extensive information on native Indonesians who were commissioned as Lieutenants in the Dutch Colonial Army or Koninklijk Nederlands Indisch Leger (KNIL).
 17. Markas Besar TNI AD, op.cit., 74.
 18. Ngurah Sumitra. “Kepemimpinan militer di era transformasi Angkatan Darat: Suatu tinjauan psikologi” [Military Leadership in the Era of Army Transformation: A Psychological Review] *Jurnal Yudhagama*, 33 no.1(2013), 20-27.
 19. Markas Besar TNI AD. *Strategi Transformasi TNI AD* [TNI AD Transformation Strategy] (Jakarta: Pokja Transformasi TNI AD, 2014).
 20. *Keputusan Kasad no. B5/VII/2013 tanggal 27 September 2013 tentang Doktrin Kartika Eka Paksi* [Chief of Army Decree no. B5/VII/2013 dated September 27th 2013 on the *Kartika Eka Paksi* Doctrine]. *Kartika Eka Paksi* is a Sanskrit term for a “powerful bird second to none.” Hence *Kartika Eka Paksi* symbolize victorious Army soldier.

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GLOSSARY

ABS	African Battlespace
APA	American Philosophical Association
BI	Behavioural Indicator
BMT	Basic Military Training
CAT	Computer Aided Test
CAS	Complex Adaptive System
CDF	Chief of Defence Force
CEB	Corporate Executive Board
CFITES	Canadian Forces Individual Training and Education System
CRP	Complex Responsive Processes
DEU	Distinctive Environmental Uniform
Disbintalad	Dinas Pembinaan Mental Angkatan Darat (Mental Guidance Service of the Army)
Dispsiad	Dinas Psikologi Angkatan Darat (Psychological Service of the Army)
F35	Future 35
FOB	Forward Operating Base
HCTA	Halpern Critical Thinking Assessment
HQ	Headquarters
ILD	Institute for Leader Development
KMA	Koninklijke Militaire Academie (Royal Netherlands Military Academy)
KNIL	Koninklijk Netherlands-Indische Leger (Dutch Colonial Army)
Kodiklat	Komando Pendidikan dan Latihan Angkatan Darat (Education and Training Command of the Army)
LDF	Leader Development Framework (Canada)
LDF	Leadership Development Framework (New Zealand)

GLOSSARY

LDS	Leadership Development System
LMX	Leader-member Exchange
NASA	National Aeronautics and Space Administration
NCO	Non-Commissioned Officers
NZDF	New Zealand Defence Force
OPFOR	Opposing Force
PCAP	Position Competencies Assessment Program
RSA	Republic of South Africa
SA Army	South African Army
SAF	Singapore Armed Forces
SANDF	South African National Defence Force
SCM	Success Case Method
SSM	Soft Systems Methodology
SMV	Star of Military Valour
TACC	Tactical Air Command Centre
TBMO	Traditional Bureaucratic Military Organization
TIC	Troops in Contact
TMS	Transactive Memory System
TNI	Tentara Nasional Indonesia (Indonesian National Armed Forces)
TNI AD	Tentara Nasional Indonesia Angkatan Darat (Indonesian National Army)

INDEX

A

- Adaptive function 19, 20, 22-29
- Adaptive leadership i-iii, 1, 2, 11, 13, 33-43, notes 44, 61, 128, 135, 139, 140, 145-151, notes 153-156, 157, 158, 163, 167
- Afghanistan 19, 22, 23, notes 30, 63, notes 153, 174
- African battlespace 128, 131, 151, notes 152, notes 153
- Allocentrism 9, notes 15
- Assessment Center 164
- Asymmetric conflict 134

B

- Behavioural expectations 115
- Bureaucracy; bureaucratic 13, 19-23, 25, 27, 29, notes 30, 38, 42,

C

- Chain of command 23, 34, 57
- China 8, 10, 11, notes 17, 90, 132, 163
- Chinese (-style) leadership 2, 8, 10, 11, notes 17
- Cold War iii, 33, 101, 127
- Collectivist 5, 8-11, notes 16
- Colonialism 133
- Command responsibility 47-50, 52-55, 58, notes 59

Competency; competencies 36, 37, 42, 43, notes 44, 84, notes 98, 106, 108, 109, 120, 122, 158, 163-167, 173

Complex adaptive system 23, 27, 101-105

Complex responsive processes 20, 24, 25

Complexity theory 23, 24, notes 31, 101, 102, 106

Confucius; Confucianism 10, 11, notes 17

Critical thinking iii, 81, 82, 84-97, notes 97-100, 141

Culture 2, 5, 7-11, notes 15, notes 16, 21, 22, notes 30, 34, 37, 43, notes 44, 65, 66, 67, 70, 72, notes 79, notes 80, 89, 90, 111, 115, 124, 134-136, 142, 145, notes 156, 166, notes 169, 175

D

Decision making iii, 1, 7, 10, notes 18, 25, 28, notes 44, 62, 67-69, 72, notes 75, notes 76, notes 78, 81, 84, 91, notes 97, notes 153-156, 164, 175

Deserter; desertion 53, 55

Disobedience 47, 48, 51-58

Doctrine iii, 22, 25, 33, 38, 62, 67, 93, note 98, 101, 113, 143, 146, 150, notes 153, 157-159, 163, 165, 167, notes 167-169

E

Eleven Principles of Leadership 158

Emotions 55, 61-69, 73, 120

Epistemology notes 59, 172

Ethical behaviour 61-63, 66, 68-75

INDEX

F

Factual Knowledge 47, 48, 55, 56

Five Pillars (Pancasila) 160, 162

Full Range Leadership Model 145, 146

G

General System of War and Conflict 104, 106

Globalization 1, 21, 33, 41, 133

Guanxi 11, *notes* 17

I

Idiocentrism 9, *notes* 15

Impulses 63-65, 73

Individualist 5, 7-10, *notes* 16

In-group 9

Iraq 15, 19, 23, *notes* 30, 61, *notes* 74, 83, 176, *notes* 155

J

Just War Theory 49, *notes* 59

K

Kejuangan (Warrior Code Values) 165

L

Leader-member exchange 3, 4, *notes* 15, *notes* 16

M

Managerial leadership *notes* 44, 120, 124, 164

Meta-competency 108, 109

Moral knowledge 47, 48, 56-58

Morale 42, 53, 123, 124, 136

N

Natural law 51

Novelty 20, 22, 24-29

O

Occupational stressors 129, 130, *notes* 152

Operational leadership 112

Out-group 9

P

Paradox 20, 27-29, *notes* 31

Political psychology 3, 6, 14, *notes* 15, *notes* 16

Position Competencies Assessment Program (Program Penilaian Kompetensi Jabatan) 164

Program Penilaian Kompetensi Jabatan (Position Competencies Assessment Program) 164

Proportionality 52, 54, 55-58, 102

S

Self-control 63-68, 73, *notes* 75-78

Spectrum of conflict 130, 131, 140, 141

Strategic self-awareness 120, 121

Stratification theory 115

Stress (ed) (ful) (ors) 56, 62, 65, 68, 70, 72, 73 *notes* 75, *notes* 77, *notes* 78, 94, 88, 107, 108, 128-130, 138, 142, 146, *notes* 152, 174

Systems theory 101, 102, 104, 106

T

Territorial Doctrine 157, *notes* **167**

Trait theory of leadership 3

Transactional leadership 5, 9, *notes* **15**, *notes* **44**, *notes* **45**, 145, *notes* **156**

Transactive memory system 13, *notes* **18**

Transformational leadership 3, 5, 6, 9, *notes* **15**, 36, 42, *notes* **44**, 145, 146, *notes* **155**, *notes* **156**

Transition 42, 108, 115, 117, 118, 125, 171

Type 1 processing 62, 67, 69, 70, 72, *notes* **74**

Type 2 processing 62, 64, 67, 68, 70, 72, *notes* **74**

U

Uncertainty avoidance 37, 38

Unethical behaviour; unethical conduct 62, 63, 70-74, *notes* **76**

V

Vision 5, 7, 111, 117, 124, 147, 158, 161, 163, 165, 167

von Clausewitz, Carl 103, 111

W

Warrior Code (see also *Kejuangan*) 165

Wehrmacht 52, 53, *notes* **59**



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