Naturalistic Decision Making, Risk Management, and Leadership

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ABSTRACT
Risk guides the way groups work together, the way organizations learn, and how much trust individuals have in one another. Organizations rely on human interaction to accomplish intricate missions and solve complex problems by employing risk management processes. We recommend further investigation into risk management within the naturalistic decision making framework to determine how leaders accomplish missions through assessment of work processes and personnel. As Army leaders aim to seek assistance for their soldiers, they are constantly assessing the value of available resources and determining risks at different levels. Further dissecting risk management into the following constructs will help us address more effective leadership decision-making : fear of unknown knowledge, assessment of failure, efficiency in thinking, and productive mission accomplishment.

KEYWORDS
Naturalistic decision making, risk management, leadership, suicide prevention, Army

INTRODUCTION

Human Systems Integration encompasses an approach to design and implementation that goes beyond developing technologies and includes assessing the Manpower, Personnel, and Training requirements necessary to optimize performance. Mission effectiveness, whether for an organization or for an individual, will be minimal if the system is not properly integrated. In organizations that depend on technological systems as the primary to complete a task, true experts can determine exactly where breaks in the system occur and how to resolve these issues with a technological approach. However, when processes depend more on people than technology, there may be an increased likelihood for errors in judgment. Additionally, there may be fewer opportunities for quality control and systematic indicators that a problem exists. The key to risk management prior to making a decision is being able to balance uncertainty with action.

NATURALISTIC DECISION MAKING AND MACROCOGNITION

Adapting to the changing environment and thriving therein may seem ideal for experts who are successful, but the reality is most experienced experts learn the intricacies of their craft during crisis, or even failure. In many instances, some falter in chaos to the point of mission ineffectiveness. How we overcome these delays is a result of macrocognitive concepts, which can be summarized into two groups: functions and processes. The four functions are decision making, sensemaking, insight, and complex learning. The four processes are detecting problems, managing risk, managing uncertainty, and coordinating.

We recommend further investigation into risk management to identify how various groups asses work processes. Organizationally, risk guides the way groups code activities, decide on real-time and continuous processes, and assess outcomes within the construct of any activity – understanding risk is vital to organizational success. When accomplishing tasks in highly stressful, no-fail environments, teams may depend on the use of technology to supplement and verify tasks. However, the human remains a part of the loop regardless of the level of technological depth. Accordingly, we hold the power of human decisions as the focus of this analysis.

DISSECTING RISK MANAGEMENT

Through personnel training, assessment and compensation, organizations develop the schema for how they value individuals based on their ability to accomplish tasks. The social and experiential aspects of the workplace make it difficult to codify how a person compares his or her performance to another. Therefore, a person's ability to assess those around them will feed into his or her assessment of risk; ultimately this risk analysis guides how much or how little we employ technologies to overcome human deficiencies. In simpler terms, when one lacks confidence in the capabilities of another, he or she may prefer to use a technological approach and bypass that person altogether. This can be problematic when resources are limited and time is an issue. Further, if the technology fails, significant energy could be wasted in finding a work-around solution. It is necessary to further

analyze risk as an interaction between four constructs : fear, failure, planning, and productivity. The following sections detail each of these as a recommended subset of risk management within macrocognition. Further, one of the Army's most complex current issues, how to assist Soldiers who are in extreme distress, serves as a foundational topic for this construct.

Fear of Unknown Knowledge

In its simplest form, fear is synonymous with the stress that results from a lack of information. In a knowledge vacuum, people tend to assume the complete worst or the absolute best, instead of the most likely outcome. This void disconnects the individual and the system, because he or she replaces logic with the stress response and behavioral outcomes that counter progress in accomplishing the necessary tasks. At times, our assessment of available knowledge may be based upon our lack of confidence in the organization's knowledge management processes or our assessment of other team members' capabilities.

Assessing Personal and Collective Failure

It may be hard for a person to separate another person's capabilities from his or her potential failures. The two should not be synonymous, however how an organization classifies the lessons learned from past failures may guide how they relate individual skills to collective potential. High levels of self-efficacy in a collective group can make even the most inexperienced teams' mission effective. However, a team member may be unaware of how another person has performed in the past and not knowing whether the person has been successful in the past may hinder the relationship between the two. Additionally, in a worst-case mission failure scenario, the only way a person measures success is by being fully aware of how their supervisor will react.

Thinking while Planning

The natural tendency to plan for the worst and best case scenarios is not only a skill, but an art developed through experience. Because our thinking normally follows the cognitive path developed from years of constructing a schema around what works and what does not, some seldom venture from structured thinking (such as an outline) into creative thinking (such as a concept map). Inability to think outside the box during the planning process plagues the worker who aims to be busy, but may not be effective. Those who value "executing" over "planning" will sacrifice the time it may take to make a calculated decision for the short-term gain of making a decision at all.

Productivity while Working

When accomplishing an organizational task analysis, we may find the assessment biased by what the assessor considers productive, especially if the job being assessed is not one he or she themselves perform. In other words, it is very easy to seem busy or stagnant when the person making the assessment is unaware of the job's steadystate. In assessing whether others are "busy enough," we may overlook the fact that many factors of the job and personnel may be grossly under- or over-stated. Some will delay in accomplishing a task because they are willing to wait on the entity that seems busy but really is not working (and therefore over-valued) in order to wait on the entity that is over-tasked but not equipped to handle the workload (and therefore under-valued). In instances where a complex problem requires the assistance of multiple parties, this can be extremely problematic.

MANAGING RISK IN A CHALLENGING LEADERSHIP ENVIRONMENT

The proposed construct is especially important in any process that relates to the Human Resources (HR) field where the primary source of information and work hours comes from people instead of technology. HR in the Army continues to evolve to increase its technological capabilities, but maintains human interaction as a fundamental requirement for HR operations. The HR system most often interacts with its "expert" in the fundamental act of an Army leader (the expert) taking care of his or her soldier (the customer) using any of the personnel services available. A 2013 study included interviews with 24 active-duty Army soldiers who provided feedback on the Army Suicide Prevention Program. The researchers concluded a majority of the Soldiers understood the value and emphasis leaders place on the program, but did not trust the training construct to be the best line of defense when responding to suicidality. Further, the program's training emphasis of identifying suicide risk factors and depending on the 'buddy system' for identification of these factors were not rated as important to the interviewees as leader engagement and increasing personal protective factors associated with help-seeking behaviors.

We venture to guess the backdrop of the entire risk management construct is organizational trust (or lack thereof), which is key to our discussions on mission command and human systems integration. These proposed components of risk management reiterate the need for leaders to know how to seek, understand, and employ a response to a sexual assault or suicidal ideation at a moment's notice. Without adaptation from the "norm" many

leaders would not know how to respond in order to provide vital assistance to those soldiers and family members in need.

First, there must be an accurate assessment of the knowledge gap or the leader will resort to the so-called "fear tactics" approach to providing help. This approach abandons discovering what information is known and focuses on the information that is not. Specifically, soldiers may not feel inclined to disclose the reasons for suicidal ideations, but leaders cannot be so fearful of the reasons that they miss an opportunity to provide assistance. Good leaders know that trying to force a person or a provider into this type of aid can be isolating and counterproductive.

Next, there must be a focus on defining success and failure, or an individual failure may be misconstrued as an organizational one. Ideally, individual success will be championed by the organization, but not overshadowed as an organizational win in all instances. A leader who identifies that a soldier needs help will build a plan around the individual's view of success, both in the short and long-term. The role of the leader is to find solutions that are best for all involved, as opposed to employing solutions that only avoid their personal failure.

Third, there must be a time-efficient planning process that does not end with the individual wasting unnecessary time due to a stifled thought process. The planning process is continuously adjusted based on updates to resource estimates and the maturity of the problem. In instances of emotional distress, there may not be an available clinical solution, but there may be an opportunity to help someone come up with a plan that addresses his or her basic needs. The expert leader accepts a changing plan over a failing one. Finally, this relates directly to being productive at all times, working to find solutions despite our limited resources and unlimited number of tasks.

CONCLUSION

Although this construct is not new with respect to naturalistic decision-making, we propose a closer examination of how people make decisions based upon how they assess risk. Within soft systems, a person becomes the gatekeeper of information and communication, not a computer. The decisions people make within soft systems are complex and evolving, and most importantly, time-sensitive. As both designers and users of the systems, experts must be aware of their own understanding (metacognition) and constantly assess collective adaptability (macrocognition) or few will be capable of implementing necessary system changes.

We continue to develop the conversation of how to best train our soldiers. In today's austere environments and complex matters, we must provide training and assessments that discuss risk management from the macrocognitive perspective. Most individuals prefer human solutions to human problems, understanding that technology is important but still unable ont make decisions on its own. Soldiers trust the leader who approaches the unknown willing to take a calculated risk, but avoid leaders who respond to complexity unwilling to accurately assess associated risks. As we continue to discuss the Human Dimension as a combat multiplier in military operations, further understanding of risk management and decision making is imperative.

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