

AIR WAR COLLEGE

AIR UNIVERSITY

JOINT MISSION COMMAND IMPLEMENTATION

by

Michael Dane Acord, COL, US Army

A Research Report Submitted to the Faculty

In Partial Fulfillment of the Graduation Requirements

Advisor: Col Duane Opperman, USMC

January 22, 2016

DISCLAIMER

The views expressed in this academic research paper are those of the author and do not reflect the official policy or position of the US government, the Department of Defense, or Air University. In accordance with Air Force Instruction 51-303, it is not copyrighted, but is the property of the United States government.

Biography

Colonel (COL) Michael Dane Acord is currently assigned to the Air War College, Air University, Maxwell Air Force Base (AFB), AL. Following the Army Command and General Staff College and School for Advanced Military Studies, COL Acord was assigned to Ft. Bragg, NC where he served as the Corps Campaign Planner for XVIII Airborne Corps and the Multinational Corps – Iraq (MNC-I). Upon redeployment, COL Acord was assigned as a Battalion and BCT Executive Officer for the 2BCT, 82nd Airborne Division where served on the Nation's Global Response Force and deployed to Operation Unified Response for earthquake relief in Haiti. From 2011 to 2013, he commanded 6th Ranger Training Battalion at Eglin AFB, Florida. Post his command tour, COL Acord was reassigned to Ft. Polk and deployed to Afghanistan as the Deputy Commander for 4/10 MTN and led the 201st ANA Corps' Security Force Assistance – Advisory Team (SFA-AT). Upon redeployment, COL Acord transferred to the Joint Readiness Training Center's Operations Group and worked as the Chief of Plans and Exercises. COL Acord holds a Bachelor's Degree in Biology and two Masters Degrees, a Masters in Management from Troy University and a Master of Military Arts and Sciences from the Command and General Staff College.

Abstract

Chairman of the Joint Chiefs of Staff, General Martin E. Dempsey recently published *Mission Command*, a white paper calling for the services to institutionalize the philosophy of mission command in the issuance of orders. The purpose of this paper is to evaluate mission command implementation across the joint force and to posit a theory of why mission command implementation continues to be challenging. The paper will evaluate scientific articles describing trust as, in the opinion of the author, the principle shortfall inhibiting full implementation. The paper focuses only on current doctrine and implementation efforts to date. The thesis reasons that a lack of doctrinal understanding and trust up and down the chain of command challenges implementation. The first argument explores doctrine and supposes that mission command doctrine varies so greatly from service to service, command preferences have not changed. The research finds that joint doctrine fails to establish full understanding of the mission command approach across the services and recommends a broad revision. The second argument evaluates scientific literature regarding trust and examines the biology of trust. Dempsey describes trust in his white paper as a behavior that commanders can choose. The paper finds that trust is strongly influenced by the subconscious brain and treating it like a tool ignores biology and results in further mistrust. The paper looks to the USMC as a possible counter-example, but shows their success implementing mission command could be largely due to trust building mechanisms. Finally, the paper concludes joint doctrine, education, and training are not sufficient to accomplish Dempsey's vision.

Introduction

On April 3, 2012, Chairman of the Joint Chiefs of Staff, General Martin E. Dempsey published *Mission Command*, a white paper calling for the services to institutionalize mission command in an effort to lead the Joint Force into the future operating environment.¹ With this white paper, Dempsey challenged the services to make mission command “a common attribute of our profession of arms.”² Dempsey viewed mission command essential to success of the future force as a viable and needed approach to uncertainty. Building on his efforts as the US Army Chief of Staff, Dempsey expanded implementation efforts to the entire joint force.

Trust and Common Language

In large part due to a lack of doctrinal understanding and trust up and down the chain of command, joint mission command implementation and practice continues to be challenging. Dempsey’s *Mission Command* provides a good intent statement for the approach, but is woefully inadequate directing its implementation and use. To that end, this paper will argue that mission command varies so greatly from service to service and without a common language and foundational doctrine, command preferences will remain service-centric and fail to achieve Dempsey’s vision. Additionally, despite the chairman’s emphasis on mission command, leaders have been and remain hesitant to implement because of leader to led trust shortfalls.³ Although Dempsey addresses the importance of trust, his conclusion that it is a learned behavior fails to adequately account for the strong biological tendencies affecting human decision making.⁴ *Mission Command* implies that trust can be instilled or learned, and if a leader will trust others, they can create the habit of a new behavior, in this case the behavior of mission command.⁵ This paper will demonstrate there are strong biological tendencies that influence trust and posit that

trust is not automatic, cannot be forced, and must be gained and maintained to achieve Dempsey's vision.

Organization

The essay has three sections. In the first section, the paper will describe Dempsey's vision for mission command and then briefly describe how the joint force and the services address the white paper and evaluate their doctrine as it relates to mission command. In the second section, the paper discusses why trust continues to challenge joint mission command implementation. Citing neurological studies discussing trust, the paper will argue its strong biological influences. In the third section, the essay will explore a possible counter-example where mission command has been successfully practiced. In this section, the paper will try to identify evidence counter to the author's thesis. Lastly, the monograph will make recommendations on how joint mission command can be achieved given the conclusions from each section.

Dempsey's Intent for Mission Command

First, one must understand Dempsey's concept of mission command. Mission command as noted on the title page of Dempsey's white paper is defined as "the conduct of military operations through decentralized execution based on mission-type orders. Successful mission command demands that subordinate leaders at all echelons exercise disciplined initiative and act aggressively to accomplish the mission."⁶ He further describes three key attributes of mission command; understanding, intent, and trust. Understanding, according to *Mission Command*, is "the cognitive ability to see and understand a situation at a glance and thereby enable

independent decision and correct action.”⁷ Intent is “a clear concise expression of the purpose of the operation and the desired military end state.”⁸ To Dempsey, intent fuses understanding, missions, and subordinates and acts as a guiding star.⁹ Trust, Dempsey argues, is the belief that your subordinates will perform with responsible initiative in complex, fast-changing, chaotic situations.¹⁰

In instilling mission command, Dempsey describes it as a habit that joint service doctrine, education, and training can develop.¹¹ Additionally, Dempsey describes trust as a learned behavior that joint services must instill at indoctrination.¹² He goes on to describe mission command as commander centric, describing a myriad of commander requirements that are necessary for effective implementation.¹³ *Mission Command* charges commanders with instituting culture change to develop a bias for action and empowerment.¹⁴

Since then, the services have evaluated their own concepts of command assessing them against Dempsey’s vision. Lt. Col James W. Harvard’s “Airmen and Mission Command” in the March 2013 edition of *Air and Space Power Journal* succinctly describes mission command implementation from an evaluation of joint and service doctrine.¹⁵

Interestingly, Harvard begins with the Marine Corps. Marine Corps Doctrine Publication (MCDP) 6 describes two fundamental approaches detailed Command and Control (C2) and mission C2 that occur along a spectrum.¹⁶ According to MCDP 6, detailed C2 occurs from the commander’s personal direction and involves explicit orders.¹⁷ It is used when the complexity of the situation or the risk involved requires a greater degree of control. Conversely, when less control is necessary, Mission C2 pushes decision authority downward.¹⁸ Mission C2 allows subordinates maximum flexibility with plans as simple as possible.¹⁹ Although mission C2 is the

preferred C2 approach, USMC doctrine acknowledges that the situation may dictate using a combination of the two.²⁰

The Army describes mission command as both a philosophy and warfighting function.²¹ With respect to the philosophy, Army mission command seeks to enable the disciplined initiative of agile and adaptive leaders. As a war fighting function, Army mission command integrates those activities enabling a commander to balance the art of command with the science of control.²² Combining both into a system, the Army mission command includes the other aspects of C2 familiar to the joint force; personnel, processes and procedures, network, facilities, equipment and information systems.²³

Like the USMC, the Navy prefers decentralized execution despite advances in global communications that overcomes its historically long operating distances. Navy Doctrine Publication 1, *Naval Warfare*, identifies a thorough understanding of the commander's intent as a key tenant of Naval Forces' C2 philosophy. It espouses providing guidance and then allowing their tactical commanders to determine how the action will occur.²⁴ Extremely concise, Navy C2 philosophy is described in only two pages with a short description and list of considerations that reflect the Navy's operational environment, traditions and culture.²⁵ Unlike the Army and USMC, the Navy espouses centralized planning, decentralized execution.²⁶ This diverges from Dempsey's vision in that decentralized execution does not account for exploiting opportunities, an essential part of Dempsey's vision.

Harvard²⁷ describes the USAF approach as balanced.²⁸ Like the Navy, the USAF's preferred C2 approach can be described as centralized control and decentralized execution.²⁹ Because of the USAF's global ranging effects, the USAF must use a different C2 approach to quickly deliver effects within the Joint Force Commander's priorities. Harvard goes

on to posit that it is necessary to ensure the allocation of limited resources to the highest priority throughout planning and execution.³⁰ In his opinion, this necessitates the USAF's centralized planning approach.³¹

Joint Doctrine describing mission command lacks specificity. Harvard notes JP 3-0's definition of mission command as an important component of the C2 function and defines it along the lines of the Army as the conduct of military operations through decentralized execution based on mission-type orders.³² Other than Dempsey's *Mission Command*, Joint doctrinal publications fail to describe the preferred command approach in any further detail.

In summary, Joint and service doctrine has two problems. First, they are uneven. Although allowing the services to define mission command along their own lines preserves service culture, it created room for misinterpretation. The USMC and Army doctrine adequately describe Dempsey's vision, but the US Army's construct of mission command as a command approach and warfighting function has created confusion.³³ In the case of the USAF and the Navy, the term mission command was simply recast as their preferred approach of centralized planning, decentralized execution. Although very good reasons exist for their preferred methods, it is arguable whether true decision making, meaning the ability to assess the situation and exploit opportunities, has been delegated to subordinate commanders.³⁴ Decentralization of the decision to this level remains out of the Navy and USAF's comfort levels falling short of Dempsey's vision. Second, joint doctrine is not complete. Joint doctrine prescribes no alternative approach such as the USMC's detailed C2. Therefore, when a precondition for mission command doesn't exist, such as a part of the list of commander requirements or the capability level necessary to achieve decentralization, commanders revert to prescriptive practices in conflict with the word and spirit of Dempsey's white paper. Joint doctrine fails to

establish full understanding of the mission command approach across the services preventing a common language for implementation. The lack of doctrinal revisions handicaps joint mission command implementation and by its very nature inhibits Dempsey's vision from becoming reality.

The Biology of Trust

Dempsey, confidently concludes *Mission Command* with "You have my trust."³⁵ This is curious. There is evidence in his own white Paper that question this assertion and indicate a hesitancy. In the definition of mission command, why qualify initiative as disciplined?³⁶ If he trusts you, why bound your actions in the absence of orders with a term that according to Merriam Webster meaning "control that is gained by requiring that rules or orders be obeyed and punishing bad behavior?"³⁷ Dempsey goes on to stress the need to perform with responsible initiative.³⁸ Responsible, or "able to be trusted to do what is right or to do the things that are expected or required" denotes that those in complex, fast-changing, chaotic circumstances not only are you expected to do what is right, you are expected to do what is expected.³⁹ What is right is challenging enough, but how am I expected to act in a given unknown situation? Commander's intent can help, but in a fast changing environment, how sure can we be that intent can act as a guiding star?⁴⁰ In the author's opinion, it cannot. Arguably, Dempsey does warns us to not trust blindly, but is this not another qualifier that requires judgment of whether a subordinate can act independently?⁴¹ Dempsey's hesitancy shows the difficulties in effecting trust up and down the chain of command.

Dempsey's paper suggests that if certain approaches are exercised, mission command follows. For example, after describing the commander's requirements for mission command,

Dempsey states “when achieved, these practices result in decentralized formal decision making.”⁴² In this, Dempsey supposes trust is a practice and is volitional meaning we can control it.⁴³ Mission command practices such as understanding the problem, envisioning the end state, and describing time, space, and resources can attain understanding and contribute to achieving the approach, but simply adopting these practices cannot achieve trust.⁴⁴ Trust is different. It is deeply biologically grounded.⁴⁵ Of the three key attributes described in the white paper, understanding, intent, and trust, only trust is strongly influenced by the subconscious brain. Treating trust like it can be taught, or a behavior that commanders can chose ignores the role biology plays in human behavior.⁴⁶

Svetoslav Braynov, Assistant Professor of Computer Sciences at the University of Illinois, explored this topic in an extensive survey of trust related studies of neuroscience, behavioral economics, and biology. In his paper, “What Human Trust Is and Is Not: On the Biology of Human Trust,” Braynov asserts that trust is deeply biological.⁴⁷ His work, originally part of studies supporting the advancement of Artificial Intelligence offers us a possible explanation for trust shortfalls inhibiting full mission command practice.

Braynov argues that trust is not entirely determined by our mind.⁴⁸ He describes the “fundamental assumption in economics, game theory, and decision theory is that people act in their own self-interest.”⁴⁹ Of note, much of the research surveyed by Braynov is based on game theory using simple investment tests. These models range from one-shot to multiple interaction scenarios where trustors and trustees exchange in order to achieve the highest possible payoff.⁵⁰ Some argue simple game theory is too simplistic, but Braynov argues that is the point.⁵¹ Without outside factors, trust is subject to subconscious influence. Braynov surveyed numerous studies to show how trust emerges. One such study described how trust emerged from short social

interactions. In this study, trust was developed as reputation building in a series of games.⁵² Braynov concluded that trust did emerge from repeated interactions, but this didn't explain everything. Braynov noted that some trustees alternated between honoring and abusing trust as long as the acceptable payoffs remained for the trustor.⁵³ At times, trust emerged in the absence of repeated interactions and other external sources. In one such experiment, trustors and trustees reacted differently when people treated them nicely.⁵⁴ Another example described a study where subjects returned more money to investors when no external factors necessitated returns. What he discovered surveying numerous studies was that trust emerged and failed to emerge for unknown or inconsistent reasons not explained by conscious decision making.⁵⁵

Braynov explored trust on the brain further using hyperfunctional magnetic resonance imaging. Calculated trust or risk taking, Braynov explains, "activates the ventral segmental area, a brain region closely related the dopamine based reward system and the evaluation of expected and realized rewards."⁵⁶ While non-calculative trust, or trust that emerges from personal trust, "activates the septal area, a region linked to social attachment and the release of oxytocin, a neuropeptide that influences brain activity and promotes not only trust, but social attachment."⁵⁷ Interestingly, Braynov argued that risk taking is cognitively costly requiring constant mental effort to determine each other's intentions.⁵⁸ While personal trust requires less cognitive processing proving to be faster and more efficient in promoting cooperation.⁵⁹

These were curious findings. Essentially, two types of trust emerged. The first type, calculative trust, was cognitively costly and generated a dopamine-based, fight or flight response. The second type, non-calculative or personal trust, was faster and generated an oxytocin based social bonding response. Essentially, calculated trust produced hormones that raises our guard, while personal trust lowers it.

Applying this to Dempsey's concept, the trustor is the commander and the trustee are the subordinates. For mission command to work, the commander must decentralize so that subordinates can execute faster than enemy decision cycles. To do this, commanders incur a certain amount of risk from decentralization. This risk is three-fold; risk to mission, risk to members, and risk to self. When subordinates fail, the result could be mission failure, casualties, or unemployment. Accordingly, the commander should then calculate the risk and then act appropriately. However, in practice, as Braynov found, calculating risk produces the opposite effect of the trust required to execute mission command. Personal trust is the key.

But can we simply control our emotions? Not exactly. As Braynov would argue, although commanders practicing mission command can sometimes choose their own actions, they often cannot choose their own feelings.⁶⁰ As a result, when practicing mission command and trusting, one's body is reacting, expecting an action, and preparing for it physically.⁶¹ Their feelings, or unconscious responses, in turn are either producing fight-or-flight reactions or social bonding regardless of their outward behavior. Since the brain prepares for an unconscious decision 300 milliseconds faster than a conscious decision, this reaction precedes conscious efforts.⁶² Interestingly, the trustees react unconsciously as well and their reactions produces a similar fight or flight or bonding response. It is in these responses, trust is gained or lost. Therefore, despite one's noble, rational efforts to trust, humans react first in accordance with their nature. Biology matters.

These conclusions have significant implications for mission command. Braynov's conclusion that trust is beyond volitional control refutes Dempsey's notion that trust is a habit, or learned behavior.⁶³ Therefore, to realize mission command in accordance with Dempsey's vision, trust has to take primacy. Trust, especially trust resulting from relationships, produces

the biological responses that facilitate mission command. Without it, the mission command Dempsey desires will remain elusive.

Counterexample

One could argue the USMC has been able to achieve a level mission command across a joint force.⁶⁴ Joint trust and mission command is evident in the USMC, but why? One argument is its unique culture and long emphasis on Mission C2 have overcome the deep tendencies of other forces to centralize. This could account for it, but the US Army has also emphasized mission command, achieving some success, but has failed to implement as fully. The USMC has been able to achieve a level of trust that their fellow Marines will act as expected that supplements deficiencies in personal trust. This is because USMC doctrine and organization act as trust building mechanisms.

Mission Command doctrine in accordance with MCDP 1, 6, and their Operating Concept describe mission command similarly to Dempsey's white Paper. However, instead of articulating trust as an attribute tied to other attributes, it identifies trust as a precondition necessary for decentralized operations.⁶⁵ This is an important distinction. Dempsey falls short in describing trust as a precondition. Furthermore, he places the burden of trust squarely on the commander. Although this top-down approach to implement change typically works, the cultural change approach thus far has failed to address the human tendencies described by Braynov. USMC doctrine establishes the primacy of trust and arguably achieves greater mission command practice as a result.

In the absence of personal trust, the USMC builds trust by organizing together. In 1952, Congress directed the integration of ground and air. The USMC formalized the structure in 1963

and placed it under a single commander.⁶⁶ This makes the Marine Air Ground Task Force (MAGTF) the principle fighting organization for all Marine Corps missions across the range of military operations regardless of the force size.⁶⁷ As a result, the USMC organizes around a MAGTF and fights the same way each time. This creates common understanding and a greater degree of confidence that commanders and subordinates will act as expected when executing their assigned missions. This helps to establish expectations and can account for greater trust in the absence of relationships.

Intriguingly, joint doctrine supports the USMC's organizational trust building mechanisms. For example, there is an important difference how Marine Air supports ground forces and how USAF supports Army Ground forces. Joint doctrine describes both. JP 1 states "the MAGTF commander will retain OPCON of organic air assets" and "the primary mission of the MAGTF aviation combat element is the support of the MAGTF ground combat element."⁶⁸ Conversely, JP 3-30 discusses how army elements request and how USAF controls close air support, but maintains the JFACC's responsibility for prioritization in accordance with the Joint Force Commander.⁶⁹ In one case, unknown liaisons at a three star headquarters arrange for ground support amongst other priorities. In another, Congress directs the support and ensures it by placing one commander in charge. Furthermore, in one organization, air and ground elements live, train, and operate together as a matter of practice. In another, USAF representatives are attached to direct effects, then return to their parent organizations. This is not to imply that the USAF does not support the Army, they do. However, one cannot argue the negative effects on trust. USMC MAGTFs and doctrine act as a trust building mechanisms and lends to greater practice of mission command.

Recommendations

Mission Command flows from trust. In this respect, Dempsey has it absolutely correct. He states “building trust with subordinates and partners may be the most important action a commander will perform.”⁷⁰ To implement and practice mission command based on the primacy of trust, the joint force and the services need to focus on activating the septal areas of the brain. Braynov conclusions suggest trust building mechanisms would do this and break down natural anti-trust fight or flight responses. The services and joint force must invest significantly in these mechanisms. Joint doctrine, education, and training are the keys to achieving mission command, but are currently not up to Dempsey’s task.⁷¹ Doctrine, organization, and training can serve as a trust building mechanism, but require improvements to build the trust necessary for joint mission command.

Doctrine will have to be revised. The white paper, although good, is simply a position, and cannot direct compliance. Leaving mission command doctrine to the individual services resulted in them concluding their doctrine was adequate. This limited implementation. To implement mission command in accordance with Dempsey’s vision requires a consistent prescription in joint and service doctrine. This will prevent the message from being lost in translation and will create the common language necessary for ideal practice. Without a common language, mission command will remain what it is, service specific command approaches. With respect to completeness, the joint force should adopt an approach similar to the Marine Corps. USMC Doctrine describes command and control along a spectrum. Even though it describes detailed command and control with some disdain, it acknowledges in practice that the situation may call for use of detailed methods. Using a spectrum of command with the levels of supervision adjustable based on training, education, and complexity provides

commanders and leaders flexibility to command and control based on their individual situation. This makes parts of its implementation immediately available and prevents the mistrust that results when commanders or subordinates act outside of expectations.

Joint and service components that are expected to operate together using the mission command approach should be organized together. It is possible to develop a MAGTF type organization between US Army and Air Forces that has established doctrine, prescribes roles, and is organized under one commander. As Col. Robert Loynd concluded, “The MAGTF's flexibility, responsiveness, lethality, and persistence lie in the cooperative action of all of its components, none more important than any other.”⁷² This is the deep jointness Dempsey believes will achieve mission command across services.⁷³ It is in this cooperative action, trust and ultimately mission command can be achieved.

Services that fight together, must train together more often. It is training that reinforces the expectation of how units operate and increases understanding. Without it, mission command techniques such as implicit communication and mission-type orders fail because strong biological responses inhibit their use. The Marine Corps Operating Concept reinforces this notion stating that “trust and mutual understanding developed in training allows dutiful subordinates to know what is expected of them.”⁷⁴ Training on what is expected, not the mission command approach, activates the parts of the brain that lead to trust. As individual services demonstrate what they do and how they do it, other services gain confidence in their ability to act within certain parameters. To operate with disciplined initiative especially across services, commanders have to have confidence that their subordinates will operate as expected. This confidence results in part from training. Training informs expectations and encourages trust. In the absence of training, anti-trust biological mechanisms impede mission command.

Final Thoughts

Based on the evidence presented, mission command is not a tool the commander can chose to use or not. Mission command is an outcome of trust and cannot be successful where trust is absent. Mission Command cannot be taught, it must be achieved. Top down cultural change will not overcome deeply ingrained human nature and could result in distrust moving us further from Dempsey's intent. Nevertheless, mission command is attainable. In the absence of relationships, doctrine, education, and training, can create belief and capability and serve as a starting point for mission command practice. Then, personal trust, through relationships built by leaders can fully achieve the mission command Dempsey describes. Through an investment in trust building mechanisms, in advance, the joint force can realize mission command's untapped potential.

Notes

¹Dempsey, Martin E, General, CJCS. Mission Command White Paper, 3 April 2012. http://www.dtic.mil/doctrine/concepts/white_papers/cjcs_wp_missioncommand.pdf.

² Ibid, 8.

³ This is based only on the evidence that we continue to try to implement something that has been around in concept since 1806.

⁴ Ibid, 4.

⁵ Ibid, 6.

⁶ Ibid, 1.

⁷ Ibid, 5.

⁸ Ibid.

⁹ Ibid.

¹⁰ Ibid.

¹¹ Ibid, 5.

¹² Ibid, 6.

¹³ Listed for your reference: describing time, space, resources and purpose, direct the joint war fighting functions and constantly assess the process. The commander must understand the intent of the mission given him. In turn, he must clearly translate his intent to his subordinates. The missions given subordinates must be within their capabilities; the commander must understand what his subordinates can do, and trust- -but not blindly- them to do it. In its highest state, shared context and understanding is implicit and intuitive between hierarch and lateral echelons of command, enabling decentralized and distributed formations to perform as if they were centrally coordinated.

¹⁴ Ibid. 8.

¹⁵ Harvard, Lt Col James W. “Airmen and Mission Command.” Air and Space Power Journal, March-April 2013. P 132. <http://www.airpower.maxwell.af.mil/article.asp?id=138>

¹⁶ Marine Corps Doctrine Publication (MCDP) 6, *Command and Control*, 4 October 1996, 77-78. <https://fas.org/irp/doddir/usmc/mcdp6.pdf>

¹⁷ Ibid, 77-7.

¹⁸ Ibid, 134.

¹⁹ Ibid.

²⁰ Ibid, 80.

²¹ Army Doctrine Publication (ADP 6-0), *Mission Command*, 17 May 2012, 1, <https://fas.org/irp/doddir/usmc/mcdp6.pdf>

²² Ibid, 5.

²³ Ibid, 11.

²⁴ Naval Doctrine Publication 1, *Naval Warfare*, March 2010, 36. [https://www.usnwc.edu/Academics/Maritime--Staff-Operators-Course/documents/NDP-1-Naval-Warfare-\(Mar-2010\)_Chapters2-3.aspx](https://www.usnwc.edu/Academics/Maritime--Staff-Operators-Course/documents/NDP-1-Naval-Warfare-(Mar-2010)_Chapters2-3.aspx)

²⁵ Ibid, 34.

²⁶ Ibid, 35.

²⁷ NOTE: Harvard is in the USAF!

²⁸ Ibid, 144.

²⁹ Curtis E. Lemay Center for Doctrine Development and Education, *Basic Doctrine – Volume I*, 1, <https://doctrine.af.mil/download.jsp?filename=V1-D81-CC-DE.pdf> .

³⁰ Ibid.

³¹ Harvard, 139.

³² Joint Publication (JP) 3-0, *Joint Operations*, 11 August 2011. II-2. http://www.dtic.mil/doctrine/new_pubs/jp3_0.pdf

³³ Harvard, 136.

³⁴ Dempsey, 3.

³⁵ Ibid, 8.

³⁶ Ibid, 1.

³⁷ Merriam Webster Online

³⁸ Dempsey, 5.

³⁹ Merriam Webster Online

⁴⁰ Dempsey, 5.

⁴¹ Ibid, 4.

⁴² Ibid, 4.

⁴³ Dempsey implies this throughout the paper as he describes trust as a tool or a learned behavior.

⁴⁴ Understanding does involves both sending, receiving, coding, decoding, and like calculative trust is subject to our biases, but doesn't generate similar biological responses because there is less risk and reward is understanding.

⁴⁵ Braynov, Sviatoslav. "What Human Trust is and is not: On the Biology of Human Trust," Association for the Advancement of Artificial Intelligence. 2013.
<https://www.aaai.org/ocs/index.php/SSS/SSS13/paper/view/5827>

NOTE: Braynov work is an exhaustive survey of numerous sources on trust. Although referring to primary sources here would be impressive, it would not serve the conciseness needed by this paper. Additionally, many primary sources were not available without purchase. Therefore, for the scientific aspects of this paper, Braynov will serve as our primary source given his expansive research. For a full list of his sources follow the above link to his document.

⁴⁶ Braynov, 10.

⁴⁷ Ibid, 10.

⁴⁸ Ibid, 12.

⁴⁹ Ibid, 11.

⁵⁰ Ibid, 10.

⁵¹ Ibid, 11.

⁵² Ibid, 11.

⁵³ Ibid, 11.

⁵⁴ Ibid.

⁵⁵ Ibid, 15.

⁵⁶ Ibid, 13.

⁵⁷ Ibid.

⁵⁸ Ibid.

⁵⁹ Ibid.

⁶⁰ Ibid, 12.

⁶¹ Ibid.

⁶² Ibid, 10.

⁶³ Ibid, 15.

⁶⁴ In this and further references to USMC Joint activity, “Joint” is defined as integrating air, ground, and naval components versus across services as the definition describes.

⁶⁵ Marine Corps Operating Concepts (MCOC), Third Edition. 01 June 2010. Accessed on 07 DEC 15, 17.

http://www.hqmc.marines.mil/Portals/142/Docs/MOC%20July%2013%20update%202010_Final%5B1%5D.pdf

⁶⁶ MCDP 1, 1-4.

⁶⁷ Ibid.

⁶⁸ Joint Publication (JP) 1, *Doctrine for the Armed Forces of the United States*, 25 March 2013, IV-4. http://www.dtic.mil/doctrine/new_pubs/jp1.pdf

⁶⁹ Joint Publication (JP) 3-30, *Command and Control of Joint Air Operations*, 10 February 2014. II-2. http://www.dtic.mil/doctrine/new_pubs/jp3_30.pdf

⁷⁰ Dempsey, 6.

⁷¹ Dempsey, 6.

⁷² Loynd, Robert Col., “Don’t Cherry Pick the MAGTF,” *Proceedings*, Jul 2008. Vol 134. Accessed on 07 December 2015. <http://www.usni.org/magazines/proceedings/2008-07/dont-cherry-pick-magtf#footnotes>

⁷³ Dempsey, 3.

⁷⁴ MCOC, 24

Bibliography

- Dempsey, Martin E, General, CJCS. Mission Command White Paper, 3 April 2012.
http://www.dtic.mil/doctrine/concepts/white_papers/cjcs_wp_missioncommand.pdf.
- Harvard, Lt Col James W. "Airmen and Mission Command." Air and Space Power Journal, March-April 2013. <http://www.airpower.maxwell.af.mil/article.asp?id=138>
- Marine Corps Doctrine Publication (MCDP) 6, *Command and Control*, 4 October 1996.
<https://fas.org/irp/doddir/usmc/mcdp6.pdf>
- Army Doctrine Publication (ADP 6-0), *Mission Command*, 17 May 2012.
<https://fas.org/irp/doddir/usmc/mcdp6.pdf>
- Naval Doctrine Publication 1, *Naval Warfare*, March 2010.
[https://www.usnwc.edu/Academics/Maritime--Staff-Operators-Course/documents/NDP-1-Naval-Warfare-\(Mar-2010\)_Chapters2-3.aspx](https://www.usnwc.edu/Academics/Maritime--Staff-Operators-Course/documents/NDP-1-Naval-Warfare-(Mar-2010)_Chapters2-3.aspx)
- Curtis E. Lemay Center for Doctrine Development and Education, *Basic Doctrine – Volume I*.
<https://doctrine.af.mil/download.jsp?filename=V1-D81-CC-DE.pdf> .
- Joint Publication (JP) 3-0, *Joint Operations*, 11 August 2011.
http://www.dtic.mil/doctrine/new_pubs/jp3_0.pdf
- Braynov, Sviatoslav. "What Human Trust is and is not: On the Biology of Human Trust," Association for the Advancement of Artificial Intelligence. 2013
<https://www.aaai.org/ocs/index.php/SSS/SSS13/paper/view/5827>
- Merriam Webster Online
- Marine Corps Operating Concepts (MCOC), Third Edition. 01 June 2010.
http://www.hqmc.marines.mil/Portals/142/Docs/MOC%20July%2013%20update%202010_Final%5B1%5D.pdf
- Joint Publication (JP) 1, *Doctrine for the Armed Forces of the United States*, 25 March 2013.
http://www.dtic.mil/doctrine/new_pubs/jp1.pdf
- Joint Publication (JP) 3-30, *Command and Control of Joint Air Operations*, 10 February 2014. http://www.dtic.mil/doctrine/new_pubs/jp3_30.pdf
- Loynd, Robert Col., "Don't Cherry Pick the MAGTF," Proceedings, Jul 2008. Vol 134.
<http://www.usni.org/magazines/proceedings/2008-07/dont-cherry-pick-magtf#footnotes>