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**NAVAL WAR COLLEGE  
Newport, RI**

**OPERATIONAL FACTORS: FACT OR FICTION,  
EFFECTIVE OR INEFFECTIVE**

**By**

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Colonel, United States Army**

**A paper submitted to the faculty of the Naval War College in partial satisfaction of the requirements of the Department of Joint Military Operations.**

**The contents of this paper reflect my own personal views and are not necessarily endorsed by the Naval War College or the Department of the Navy.**

**Signature: \_\_\_\_\_**

**16 May 2006**

## Abstract

The purpose of this paper is to examine the relationship between operational factors and operational art. Specifically, to determine if the current concepts of operational factors offered by the Naval War College (NWC) and the Joint Forces Staff College (JFSC), help to explain operational art? This paper concludes that the concept of operational factors – as currently presented at the NWC and JFSC – do not help to explain operational art.

The NWC and JFSC operational factors find no inclusion or acceptance (as operational factors) in current and emerging US military doctrine. Lacking this doctrinal inclusion and /or a specific linkage to the theoretical aspects of operational art, the paper reviews the theoretical foundations of operational art in order to explore possible options. The review of operational art addresses its development and introduces Dr. Jim Schneider's eight attributes of operational art. From these eight attributes, three revised factors of operational art are distilled and presented – size, balance, and comprehensiveness.

The proposed operational factors of size, balance and comprehensiveness, while currently not doctrine, display some degree of linkage to the theory of operational art – one that could help doctrine writers better explain the important doctrinal characteristics of operational art to warfare's practitioners.

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## Introduction

**Operational art is sequencing a series of battles and major operations which will constitute a campaign – the goal of the campaign is a strategic objective.<sup>1</sup>**

**The area of study and practice of operational [art] warfare is so large and complex that it is simply not possible to develop and present an all-encompassing theory to be uncritically accepted. It would be highly misleading and even dangerous to accept anyone’s views and interpretations of the facts without a healthy dose of suspicion.<sup>2</sup>**

The adoption and development of operational art is perhaps the most important doctrinal change undertaken by the U.S. Armed Forces since the conclusion of the Second World War.<sup>3</sup> When properly applied, operational art enables the practitioners of warfare to link effectively tactical means and strategic ends. Therefore, a thorough understanding of what constitutes and what does not constitute operational art is essential if one is going to successfully direct, plan or conduct military operations that risk the nation’s soldiers, sailors, airmen, marines and lesser forms of treasure.

Today, the definition of operational art varies from one doctrinal manual to another. This is understandable given the interactive process associated with developing doctrine. However, when the curriculum from various U.S. military educational institutions profess to explain operational art by means of “operational factors” – with little or no linkage to either joint doctrine or the theoretical underpinnings of operational art itself – confusion and a lack of understanding regarding operational art ensues.

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<sup>1</sup> William Stofft, “Leadership at the Operational Level of War,” in *On Operational Art* (Washington D.C.: Center for Military History, 1994), 192.

<sup>2</sup> Milan N. Vego, “Operational Warfare” (NWC 1004, Newport, RI: Naval War College, 2000), xv.

<sup>3</sup> L.D. Holder, “A New Day for Operational Art.” *Army*, March 1985, 22.

The purpose of this paper is to examine the relationship between operational factors and operational art. Specifically, to determine if the current concepts of operational factors offered by the Naval War College (NWC) and the Joint Forces Staff College (JFSC), help to explain operational art. If operational factors in general are useful but those specifically presented by the NWC and JFSC do not help explain operational art by linking to either military doctrine or theory, are there different factors that would help to fill the void?

The main body of this paper consists of four sections. The first three include: a discussion of the various operational factors advanced by the NWC and JFSC and a review of current and proposed joint doctrine; an overview of the interrelationship of theory and doctrine; and an examination of operational art – its development and theoretical foundation. The fourth and final section will help answer the thesis, both in terms of the utility of operational factors with respect to operational art, and in terms of their proposed construct. The conclusion will offer a suitable counter argument, restate and answer the thesis, and summarize the findings and any applicable recommendations.

### **Operational Factors**

**Control of space, time and force, and their interrelationship is the chief prerequisite for success in the planning and execution of any military action; their balancing is the core of operational [art] warfare.<sup>4</sup>**

The term “operational factors” has a variety of different meanings and is discussed liberally as being integral to operational art. A leading proponent of operational factors, NWC Professor Milan Vego, contends that military theorists offer no universally accepted component list of operational art. Despite this assertion, Vego maintains there is little dispute among theorists that the eight to ten main components of operational art includes operational

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<sup>4</sup> Milan N. Vego, “Operational Warfare,” 88-89.

factors.<sup>5</sup> This is surprising since current and emerging joint doctrine as well as current respective service doctrine, do not acknowledge or specifically define operational factors.<sup>6</sup>

Drawing on the works of General Erich Von Manstein, Vego maintains resolutely: “The art of warfare at all levels is to obtain and maintain freedom of action .... to accomplish assigned military objectives .... At any level of war, freedom of action is achieved primarily by properly balancing the factors of space, time, and forces.”<sup>7</sup> Vego proceeds to define these factors at great length including numerous historical examples – some 75 pages in all. The only readily discernable doctrinal relationship to Vego’s factors of space, time and forces are “facets” of operational art (termed “forces and functions” and “timing and tempo” (see Table 1 below)) listed in current joint doctrine.<sup>8</sup> Given the lack of common understanding regarding operational art and an attempt to spur discussion, Vego maintains the necessity of providing “generic or universal terms to bridge inconsistencies in the definition (or lack of definition) of key operational terms in U.S. service and joint doctrinal documents.”<sup>9</sup>

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<sup>5</sup> Milan N. Vego, “Operational Warfare,” 10.

<sup>6</sup> Operational Factors are not defined as such in the current version and final coordinating drafts of JP 3.0: *Doctrine for Joint Operations*, as well as, Army FM 3.0: *Operations*, Air Force Doctrine Document 1: *Air Force Basic Doctrine*, Marine Corps Doctrine Publication 1: *Warfighting*, and Naval Doctrine Publication 5: *Naval Planning* (see Bibliography).

<sup>7</sup> Milan N. Vego, “Operational Warfare,” 29.

<sup>8</sup> Joint Publication 3-0, *Doctrine for Joint Operations*. (Washington D.C.: U.S. Government Printing Office, 2001), III-17, III-15.

<sup>9</sup> Milan N. Vego, “Operational Warfare,” xv.

<b><u>NWC / Vego</u></b>	<b><u>JFSC</u></b>	<b><u>JP 3.0 (2001)</u></b>	<b><u>JP 3.0 Final Draft (Dec '05)</u></b>
<b>Operational Factors</b> Space Time Forces	<b>Operational Factors</b> Forces and Functions Anticipation Balance Leverage Direct vs. Indirect Termination	<b>Facets of Operational Art</b> Synergy Simultaneity and Depth Anticipation Balance Leverage Timing and Tempo Operational Reach & Approach Forces and Functions Arranging Operations Centers of Gravity Direct vs. Indirect Decisive Points Culmination Termination	<b>Operational Design Elements</b> Synergy Simultaneity and Depth Anticipation Balance Leverage Timing and Tempo Operational Reach Forces and Functions Arranging Operations Center of Gravity Direct vs. Indirect Decisive Points Culmination Termination Lines of Operations Effects End State and Objectives
<b>TABLE 1, Operational Factors / Facets of Operational Art / Operational Design Elements</b>			

The term operational factors also find a safe harbor at the JFSC in Norfolk, VA. However, content wise, the JFSC operational factors differ completely from the list of operational factors presented by the NWC and Professor Vego. In its current Joint Planning Orientation Course Lesson Guide, the JFSC offers six operational factors: force and functions, anticipation, balance, leverage, direct vs. indirect and termination.<sup>10</sup> The JFSC curriculum does not address specifically the relationship between operational art and operational factors. The applicable readings for the course however, do include portions of Joint Publication (JP) 3.0 and JP 5.0, which explicitly include operational art and define the varied facets of operational art. Current and emerging joint doctrine articulate and define fourteen facets of operational art and seventeen operational design elements respectively (see Table 1 above). The six JFSC operational factors find definition – not as “operational factors” per se – but

<sup>10</sup> Joint Forces Staff College, “Joint Planning Orientation Course Lesson Guide.” (Curriculum, Norfolk, VA: Joint Forces Staff College, January 2006), 42.



rather specifically matching (in name) six of the fourteen facets of operational art listed in the current version of JP 3.0.<sup>11</sup>

In summary, the concept of operational factors – presented at both the NWC and JFSC – and their relationship to operational art are incomplete, not fully defined and thoroughly confusing. Instead of helping to define, educate or inform about operational art, operational factors as presented serve to confuse any serious student of operational art. Despite this confusion, does the concept of a simplified way of thinking about operational art, like operational factors, have merit? After all, being able to think about operational art in a way that exceeds the patent explanation of simply linking tactical actions with strategic ends, while at the same time, being easier to comprehend than the fourteen facets of operational art and seventeen elements of operational design (see Table 1 above), might actually serve to help practitioners of warfare better understand and apply operational art. Since doctrine appears unable to pragmatically address operational factors vis-à-vis operational art, perhaps military theory can serve as a better guide?

### **Interrelationship of Theory and Doctrine**

**Military theory serves doctrine as an “unblinking eye” that gazes upon the past, present and future. No matter how strong, an army that neglects its military theory is blind; no matter how intelligent, an officer who neglects his theoretical education will never know what he does not know.<sup>12</sup>**

The interrelationship of theory and doctrine is an important one to consider – especially given the fundamentally dependent relationship that exists between theory and doctrine.

Without the other, each would hold little relevance to man’s development. Together, they

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<sup>11</sup> Joint Publication 3-0, *Doctrine for Joint Operations*, III-9 thru III-25.

<sup>12</sup> James J. Schneider, “How War Works: The Origins, Nature, and Purpose of Military Theory.” (School of Advanced Military Studies, Fort Leavenworth, Kansas: U.S. Army Command and General Staff College, 1997), 11.

form a powerful bond that has helped humankind master the planet –normally in a positive manner, but not always.

Theory in general demonstrates how to think about problems, or at least initially, a way of explaining the world around us. “Theory is the oldest and most authentic mode of thought. As a way of thinking it is broad understanding, comprehension, apperception, holistic and organic in outlook and fundamentally pragmatic in its origins. Theory is intuitively grounded and becomes a kind of leap of faith.”<sup>13</sup> Similarly, military theory provides a baseline of how to think about warfare. In his treatise *On War*, Carl von Clausewitz offers that military theory “becomes a guide to anyone who wants to learn about war from books; it will light his way, ease his progress, train his judgment, and help him avoid pitfalls.”<sup>14</sup>

While theory demonstrates “how to think,” doctrine extends theory to be able to address the realities of the day – the practical application of “what to think.” While doctrine readily changes, largely due to the battering it takes from the “here and now,” military theory remains much more steady. It serves as a surge protector of sorts that preserves the foundation of the nature of warfare. Like all theory, military theory also changes, albeit at reduced pace from the more dynamic doctrine. The renowned British military historian Sir Michael Howard maintains the following relationship between theory and doctrine – especially during times of peace:

Still it is the task of military [theory] science in an age of peace to prevent the doctrine from too badly wrong. All scientific thought is a sustained attempt to separate out the constants in any situation from the variables, to explain what is of continuing validity and to discard what is ephemeral, to establish certain

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<sup>13</sup> James J. Schneider, “How War Works: The Origins, Nature, and Purpose of Military Theory,” 6.

<sup>14</sup> Carl von Clausewitz, *On War*. edited and translated by Michael Howard and Peter Paret. (Princeton: Princeton University Press, 1989), 141.

abiding principles and to reduce them to their briefest, most elegant formation.<sup>15</sup>

Since doctrine, heretofore, has not officially sanctioned the notion of operational factors into its separate or collective framework, either it simply does not merit inclusion or perhaps its theoretical underpinnings require adjustment or refinement. The foundation or broader base that delineates theory from doctrine might provide the necessary path for operational factors to demonstrate a valid relationship to and / or a better understanding of operational art. Because, as Michael Howard maintains above, the objective of theory is to explain what is valid and reduce principles in order to enable easy understanding. In order to proceed on this path, a more thorough understanding of operational art and its theoretical foundation is necessary.

### **Operational Art: Development and Theoretical Foundation**

**Operational Art — the employment of military forces to attain strategic and/or operational objectives through the design, organization, integration, and conduct of strategies, campaigns, major operations, and battles. Operational art translates the joint force commander’s strategy into operational design and, ultimately, tactical action, by integrating the key activities at all levels of war. (JP 3.0)<sup>16</sup>**

The origins of operational art defy specific chronological determination. The debate as to who was the first practitioner of operational art is not terribly important. What is important is the ability to understand and properly apply operational art when employing military forces. The concept of what we today understand as operational art was born in the minds of German and Soviet military theorists, who recognized the industrial revolution’s dramatic effect on the

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<sup>15</sup> Michael Howard, “Military Science In An Age of Peace,” Chesney Memorial Gold Medal Lecture, 3 October 1973.

<sup>16</sup> Joint Publication 1-02, *Department of Defense Dictionary of Military and Associated Terms*. (Washington D.C.: U.S. Government Printing Office, June 2004), 385.

conduct of war. Sigismund von Schlichting, a late 19<sup>th</sup> century German Army officer who studied the works of Carl von Clausewitz and Helmut von Moltke, was perhaps the first who recognized the quantitative and qualitative changes in warfare. “Where Clausewitz had defined strategy as the art of battles for the purpose of the war, Schlichting emphasized the importance of using operational maneuver to achieve the purposes of war.”<sup>17</sup>

The Soviet theorists of the 1920s and 1930s credited with furthering the evolution of operational art include: A.A. Svechin, V.K. Triandafillov, M.N. Tukhachevsky, and G.S. Isserson. Most of these theorists studied at the General Staff Academy on the translated works of Schlichting, Clausewitz, and Moltke (among others). Working without the limitations of an entrenched bureaucracy – swept away by World War I and the Russian Revolution – these theorists advanced ideas that are the very foundation of operational art today. Svechin implied a new level of warfare by claiming that operations link strategy and tactics. Triandafillov stressed the importance of successive operations. Tukhachevsky asserted the significance of deep operations. Finally, Isserson advanced his aggregation theory, whereby operational art served to re-aggregate the effects of military forces. This served to correct an unforeseen impact of technology that, since World War I, had created a vast diversity (airplanes, tanks and long range artillery) in force effects and characteristics.<sup>18</sup>

The origins and recent history of operational art reveal that its development was the result of inspiration, necessity, technological advances, as well as, evolutionary setbacks and progress. No one theorist or practitioner can claim credit for the birth or full development of

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<sup>17</sup> James J. Schneider, “Theoretical Implications of Operational Art,” in *On Operational Art* (Washington D.C.: Center for Military History, 1994), 25.

<sup>18</sup> James J. Schneider, “Theoretical Implications of Operational Art,” in *On Operational Art* (Washington D.C.: Center for Military History, 1994), 24-27, and Bruce W. Menning, “An Operator/Planner’s Introduction to Operational Art,” in *C510 Course Syllabus: Strategic, Operational, and Joint Environments* (Fort Leavenworth, KS: U.S. Army Command and General Staff College, 1995), 192-193.

operational art. To be sure, its development has a link to the Industrial Revolution. Most experts in the field seem to believe that the birth of operational art can also trace its lineage to the middle of the 19<sup>th</sup> century.<sup>19</sup> The World Wars of the last century expanded war's effects in terms of time and space – creating a more pronounced gap between strategy and tactics. Operational art serves to fill this expanding gap. This of course is the patent (albeit important) answer to explain operational art. However, there must be more to this important theoretical construct than linking together strategy and tactics.

In a theoretical paper titled *Vulcan's Anvil: The American Civil War and the Emergence of Operational Art*, Dr. James Schneider claims that U.S. Grant's 1864-1865 campaign marks the birth of operational art. Schneider differentiates between classical strategy and operational art by describing maneuver and battle. The classical strategy in the Alexandrian genre was one of concentrated maneuver and concentrated battle. Classical strategy in the Napoleonic genre was one of concentric maneuver, yet still retained concentrated battle. In contrast, the characterization of operational art is one extended maneuver and deep battle.<sup>20</sup>

More importantly, Schneider specifically offers eight distinctive attributes inherent to operational art. These attributes, listed and defined below in Table 2, offer a more specific composition to operational art. The attributes make sense, even more so when viewed from the standpoint of the artist vice the empirical scientist. These attributes provide content to operational art, but not the exacting definition required by pure science.

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<sup>19</sup> James J. Schneider and Bruce W. Menning both state that operational art is a product of the industrial revolution (See Bibliography for specific works).

<sup>20</sup> James J. Schneider, "Vulcan's Anvil: The American Civil War and the Emergence of Operational Art." (School of Advanced Military Studies, Fort Leavenworth, Kansas: U.S. Army Command and General Staff College, 1991), 32.

<u>Attribute</u>	<u>Definition</u>
• Distributed Operation	An ensemble of deep maneuvers and distributed battles extended in space and time but unified by a common aim.
• Distributed Campaign	The final structure built by the operational artist – characterized by the integration of several simultaneous and successive distributed operations.
• Continuous Logistics	Concerned with the movement and sustainment of armies in the field. Continuous logistics maintains both the movement tempo and force density of the army.
• Instantaneous Command and Control	Distributed deployment of forces creates a greater variety of unexpected or unanticipated tactical and operational possibilities – necessitating enhanced command and control.
• The Operationally Durable Formation	A formation capable of conducting indefinitely a succession of distributed operations – a byproduct of continuous logistics and continuous command and control.
• Operational Vision	Associated with mental agility, the ability to react to incoming information faster than it arrives. The ability to see the whole view of war.
• The Distributed Enemy	The operationally durable formation operates most effectively against a similarly designed opponent. If there is nothing to strike, the operational artist may have trouble describing the way of linking tactical means to strategic ends.
• Distributed Deployment	Ties together a nation’s ability to generate and field an army. Includes production capacity, working population, natural resources, infrastructure, and mobilization procedures. <sup>21</sup>
TABLE 2, Schneider’s Attributes of Operational Art	

For example, the distributed enemy attribute implies the necessity of facing a similarly designed opponent in order to achieve operational success. If this is so, does the lack of a similarly designed opponent fundamental to guerrilla warfare and many recent stability operations negate the importance of operational art? No. The attribute bends, but it does not break. The lack of a similarly designed enemy makes the actual opponent harder to identify, acquire and engage. The opponent still exists – and requires greater imagination and different techniques to engage fully. The colors of the artist are different – perhaps watercolors instead of oil paints are needed? Another consideration regarding stability operations and operational art is that most conventional wars throughout history include these lesser forms of warfare.

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<sup>21</sup> James J. Schneider, “Vulcan’s Anvil: The American Civil War and the Emergence of Operational Art,” 34-60.

Because of its interactive nature, conflict must be accepted as it comes to us. Regardless of the form of conflict one faces, it is imperative to be able to adapt to conflict's very complex nature.

### Revised Operational Factors

**Ideas are important. Born or adopted in particular historical circumstances, they affect man's understanding of his world and, therefore, influence behavior. Ideas are joined to form concepts and concepts are merged to form systems intended to achieve particular purposes. In military organizations, when such systems are unified institutional theories of war fighting, they are called *doctrine*. If doctrine appears to be effective in interpreting events and guiding action, it is retained and grows. If not, the concepts and ideas are discarded or changed, sometimes in time to avoid disaster, sometimes only after.**<sup>22</sup>

From Schneider's eight attributes, it is possible to distill three overarching [revised] factors of operational art. For the purpose of this paper, factor implies a more general content than attribute. This inductive approach yields the following three interrelated factors of operational art: size, balance, and comprehensiveness. Each of Schneider's eight attributes of operational art fall under at least one (sometimes more) of these factors (as indicated in Table 3 below).

Attribute of Operational Art (Theory)	Revised Operational Factor (Doctrine)
Distributed Operation	Comprehensiveness
Distributed Campaign	Balance
Continuous Logistics	Size
Instantaneous Command and Control	Size
The Operationally Durable Formation	Size
Operational Vision	Comprehensiveness
The Distributed Enemy	Balance
Distributed Deployment	Size

TABLE 3, Operational Factors derived from Schneider's Attributes of Operational Art

<sup>22</sup> Richard M. Swain, "Filling The Void: The Operational Art and the U.S. Army" (Monograph, School of Advanced Military Studies, U.S. Army Command and General Staff College, 1988), 1.

Size denotes a certain magnitude of forces and geography. It is the size of the theater or the sheer number of forces that have driven the need for operational art. From a doctrinal standpoint, size marks the evolutionary growth in importance of the term “commander’s intent.” As the battlefield has grown in size (spurred by technological advances in weaponry), combat decision-making has been forced down to junior leaders. Clearly written intent statements provide the necessary direction for subordinate leaders when the original plan no longer fully applies. The attributes of continuous logistics, instantaneous command and control, the operationally durable formation, and the distributed deployment all find some sort of attachment to this factor size. This factor suggests a location on the science half of an art to science continuum.

Balance represents the paradox in warfare. In order to perform or display a necessary capacity, one must have the ability to achieve its opposite effect. For example, the endless debate between maneuver and firepower is one of balance. “We maneuver in order to bring fire on the enemy. We bring fire on the enemy so that we can maneuver. One should not happen, indeed could not happen, without the other.”<sup>23</sup> The operational artist is much like a boxer who continually seeks balance while in the ring – always being able to both attack and defend with either hand moving left or right, forward or reverse. A boxer with good balance is a dangerous fighter, while a boxer who lacks this sense of balance will almost always find defeat. Balance for the operational artist also includes (but is not limited to) offensive / defensive, sequential / simultaneous, linear / nonlinear, conventional / unconventional, symmetric / asymmetric, centralized / decentralized operational considerations. Two of Schneider’s attributes, the distributed enemy and the distributed campaign, show an

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<sup>23</sup> James McDonough, “The Operational Art: Quo Vadis?” *Maneuver Warfare: An Anthology* (Novato, CA: Presidio Press, 1993), 110-111.



association to balance. Balance, by its very nature, displays the characteristics of both art and science.

The final two attributes, distributed operation and operational vision, fall under the factor labeled comprehensiveness. Comprehensiveness infers a holistic approach to warfighting – one that is vision derived and focused on an objective. Not only does it mean the use of all available tools (joint, combined, stability, support operations), but it also requires a proper understanding of a beginning and an end to the campaign or operation. “Operational art, as a unique style of military art, became the planning, execution, and sustainment of temporally and spatially distributed maneuvers and battles, all viewed as one organic whole.”<sup>24</sup> It is this vision of required actions coupled with a desired objective that seats the comprehensiveness factor in the predominantly art portion of the art to science continuum.

As one can see, the operational factors of size, balance, and comprehensiveness demonstrate linkage to operational art by means of theory. While they lack current doctrinal acceptance, they do provide a simplistic way of thinking about operational art. If this simplistic approach enables an enhanced understanding of operational art – a subject that confuses many practitioners of warfare – then the notion adequately serves its purpose, displays utility and should find acceptance in both joint and service doctrine.

### **Conclusion**

**The purpose of military theory is to lay the foundation for a rigorous system of training and education with the aim of making intelligent people war smart. Military theory “in-forms” the mind, that is, it provides a structure for clear thinking and problem solving.**<sup>25</sup>

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<sup>24</sup> James J. Schneider, “Vulcan’s Anvil: The American Civil War and the Emergence of Operational Art,” 30.

<sup>25</sup> James J. Schneider, “How War Works: The Origins, Nature, and Purpose of Military Theory,” 9.

In terms of a counterargument, one might offer that operational factors – those offered by the NWC, JFSC or the revised operational factors proposed in this paper – offer no apparent utility in helping to understand and apply operational art. They serve only to confuse and dilute any understanding of operational art. The current facets operational art and proposed operational design elements sufficiently explain and instruct operational art to, as Clausewitz refers, “anyone who wants to learn about war from books.”

The purpose of this paper was to determine if the current concepts of operational factors advanced by the NWC and JFSC help to explain operational art? The answer to this question is: Not as currently proposed by the NWC and the JFSC. The three NWC operational factors and six JFSC operational factors find no inclusion or acceptance (as operational factors) either in current and emerging joint doctrine or in respective service doctrine. Lacking this doctrinal inclusion, the NWC operational factors also show no specific linkage to the theoretical aspects of operational art. The JFSC operational factors find definition in doctrine as facets of operational art or elements of operational design, but their presentation as operational factors serves to cloud any serious understanding of operational art.

Despite the seemingly contrary response to the central question posed above, the idea of operational factors that simplify and improve understanding of operational art does have merit and utility. Joint doctrine presents fourteen to seventeen fundamental building blocks associated with operational art. The prospect of keeping all these constituent pieces in mind when thinking about the application of operational art is difficult to say the least. Having accepted operational factors as doctrine, could help provide a more general understanding of operational art’s constituent pieces, and more importantly their dynamic interrelationships. It

is these interrelationships – considered in some form of equilibrium – that makes operational art more of an art than science and hence harder to comprehend or master.

The proposed operational factors of size, balance and comprehensiveness currently lack definition or acceptance in doctrine. However, they do show some sort of connection to the theoretical underpinnings of operational art – namely Dr. Schneider’s eight attributes of operational art. Since Dr. Vego correctly asserts that the “theory of operational art provides both framework and direction for the development of service and joint operational doctrine,”<sup>26</sup> the acceptance of these factors into doctrine might help in a better understanding and application of operational art. Still, the place to start this endeavor is with the theory of operational art. As Dr. Schneider asserts regarding the relationship between theory and doctrine: “If doctrine acts as “the rudder of an army,” then theory stands as its helmsman. Theory must thoroughly embrace doctrine that a change in the former will immediately and directly affect the latter.”<sup>27</sup> Size, balance and comprehensiveness help one to think about and understand operational art. While currently not doctrine, it displays some linkage to the theory of operational art – one that could help doctrine writers better explain the important doctrinal characteristics of operational art to warfare’s practitioners.

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<sup>26</sup> Milan N. Vego, “Operational Warfare,” 8.

<sup>27</sup> James J. Schneider, “How War Works: The Origins, Nature, and Purpose of Military Theory,” 11.

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