The findings contained in this report are based on the results of an academic workshop conducted on January 13-14, 2015 by the Center for Strategic Leadership at the U.S. Army War College. The findings are derived from participant comments with their agreement of non-attribution for any specific contributions. This report is intended to inform senior military leaders and future concepts. The views expressed in this report do not necessarily reflect the views of the Department of Defense, U.S. Army, or U.S. Army War College.
Executive Summary

The U.S. Army War College (USAWC) conducted a workshop focused on understanding the human elements of military operations. Two groups of experts from the behavioral and social sciences participated in an interdisciplinary examination of what human elements military leaders, planners, and soldiers need to consider when operating in foreign lands. This workshop did not focus on any one past, current, or future operation, but rather sought to develop usable, holistic frameworks—applicable for the broad range of military operations—to inform future military concepts.

Participants created two very different and flexible frameworks that offer a deeper understanding of the human elements than many current constructs and checklists offer. Moreover, leaders and planners can adjust these frameworks to fit changing situations or missions. The resulting frameworks are only a starting point for the complex arena of human elements. The participants also examined—and deemed insufficient—a third framework, as requested by the Strategic Landpower Task Force (SLTF)—the sponsor for this workshop.

Workshop Key Findings

1. Potential operational environments do not operate according to linear and simple cause-and-effect models, nor can a generic list of traits and characteristics provide sufficient understanding of the dynamic and complex field of human interaction.

2. The two frameworks drafted at this workshop are preliminary and incomplete products. One framework was described as the “preamble to the preamble,” noting that a framework of this complexity requires much more time and effort before it is fully developed.

3. Several components are common to both draft frameworks. Of note, the top human element of Culture for Group 1 and Identity for Group 2 share many of the same descriptions and sub-elements. Additionally, both frameworks emphasized the importance of time, as in changes over time.

4. The resulting draft frameworks should serve as a significant step toward an eventual framework that is general, flexible, and scalable to increase its applicability across the full range of military operations.

5. An eventual framework will not be a panacea, rather it offers a structure to identify the most important human elements for a given situation.

6. An eventual framework should not be viewed as a checklist to hastily complete, but rather a tool to be considered, updated, and refined on a regular basis, including throughout all phases of planning and executing a military operation. This repeated, and at times recursive, refinement applies to both the analysis and the framework itself.
Current doctrine does not adequately address the moral, cognitive, social, and physical aspects of human populations in conflict. Since the purpose of military action is to affect the behavior of human groups in the operational environment toward a defined objective, the Army must improve the doctrinal representation of the operational environment and account for the socio-economic, cognitive, and physical aspects of human activity.\textsuperscript{1}

The U.S. Army Capstone Concept (2012)

Introduction

Recognizing the above shortcoming, the Strategic Landpower Task Force (SLTF) requested an external review to evaluate and improve an existing, draft framework of human elements for U.S. land forces to consider when operating abroad. Consistent with the SLTF’s desire to “expand the dialogue around the ‘social sciences’ of warfare alongside the ‘physical sciences’ of warfare,”\textsuperscript{2} a diverse group of scholars from twelve different universities and colleges converged upon Carlisle Barracks, Pennsylvania in January 2015 to participate in a two-day workshop which explored and examined the human elements.

The purpose of the Human Elements of Military Operations workshop was to determine how the U.S. military can account for the elements that affect and influence human behavior and decision making of external individuals, groups, and populations for the purposes of preventing and deterring conflict. Three sequential objectives guided the conduct of the workshop:

1. Propose multiple frameworks for understanding the human elements of military operations.
2. Examine a previously proposed framework.
3. Refine frameworks by leveraging the strengths of all frameworks.

Furthermore, the workshop sought to develop usable, holistic frameworks—applicable for the broad range of military operations—to inform future military concepts. This report describes those outcomes.

The workshop was founded on two key assumptions, which were shared with the participants up front. First, U.S. land forces have room to improve in their understanding of the human elements. Second, an increased understanding of the human elements will decrease the chances of unintended harm to indigenous populations, allies, and U.S. service members, thereby increasing the likelihood of mission accomplishment. Incorporating these starting assumptions, the participants eagerly brainstormed, discussed, and challenged each other,

\textsuperscript{1} U.S. Army Training and Doctrine Command, \textit{The U.S. Army Capstone Concept}, TRADOC Pam 525-3-0 (Fort Eustis, VA: U.S. Army Training and Doctrine Command, December 19, 2012), 15. This excerpt was one of seven contextual quotes shared with participants during the opening plenary session. The complete list of quotes can be found in Annex C.

resulting in useful insights and assistance for advancing the military’s understanding of the human elements.

The U.S. Army War College (USAWC) was an appropriate place to conduct such an examination in that senior service colleges have been directed to utilize such analytical frameworks. The workshop was conducted at the U.S. Army Heritage and Education Center, which is part of the USAWC campus and a welcoming venue for all participants.

A group spokesman presents his group's proposed framework of human elements. Photograph by K. Scott Finger.

**Terminology**

In an effort to minimize confusion, an explanation of the term *human elements* is needed. The USAWC team carefully selected the term because it had not been used often in military or academic circles. Therefore, participants would not be pre-disposed and limited by their understanding of the term. In conducting a review of military doctrine, concepts, and literature, the workshop organizers found that many terms were used, at times interchangeably, to include: human dimension, human aspects, human domain, human terrain, and human dynamics among others. Some of these terms are misused, and the term *human dimension* is even defined differently by the U.S. Army and U.S. Marine Corps.

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3 Chairman of the Joint Chiefs of Staff, Officer Professional Military Education Policy, Chairman of the Joint Chiefs of Staff Instruction 1800.01E (Washington, DC: Chairman of the Joint Chiefs of Staff, May 29, 2015), E-E-2. Learning Area 2.c. states: “Apply an analytical framework that addresses the factors politics, geography, society, culture and religion play in shaping the desired outcomes of policies, strategies and campaigns.”

4 The U.S. Army’s definition of human dimension has an internal focus of “encompassing the cognitive, physical, and social components...of Soldier, Civilian, leader, and organizational development and performance essential to raise, prepare, and employ the Army in unified land operations” (TRADOC Pam 525-3-7, The U.S. Army Human Dimension Concept, May 21, 2014, 5) by “optimiz[ing] human performance, building resilient Soldiers, adaptive leaders, and cohesive teams” (The Human Dimension White Paper, U.S. Army Combined Arms Center, October 9, 2014, 6). The U.S. Marine Corps takes a broader view and describes Human Dimension as follows: “Because war is a clash between opposing human wills, the human dimension is central in war. It is the human dimension which infuses war with its intangible moral factors. War is shaped by human nature and is subject to the complexities, inconsistencies, and peculiarities which characterize human behavior. Since war is an act of violence based on irreconcilable disagreement, it will invariably inflame and be shaped by human emotions.” (Marine Corps Doctrinal Publication 1, Warfighting, June 20, 1997, 13).
Methodology

The workshop utilized an interdisciplinary approach to draw upon several fields of expertise and generate fresh and critical thinking. Beginning with the opening plenary session, the USAWC team explained the purpose and objectives for the workshop, shared contextual quotes, and briefly introduced the range of military operations, terminology, and participant guidelines. The participants were then divided into two working groups of nine participants each. Both groups were represented by a similar, broad mix of academic fields. Each group had two facilitators to guide the dialogue and two analysts to capture results and take detailed notes.

The working groups spent the first day brainstorming, identifying, and categorizing elements and sub-elements for an unconstrained framework. The groups also considered how to depict the relationships amongst the elements of their framework. By the end of the first day, each group developed a draft framework, which identified critical human elements and how those elements were grouped and related to each other.

The final task of the first day was for each participant to anonymously rank order the five most important elements for a framework. The analysts collected the ballots and tabulated the results, which were shown the next morning and can be found in Annexes D and E. This process provided a way to incorporate individual input and help guard against group think.

The first plenary on the second day consisted of two parts. First, the voting results for both groups were displayed. Second, the plenary moderator introduced the participants to an existing, draft framework that the U.S. Special Operations Command (SOCOM) had previously developed. For this workshop this framework was referred to as the alternative framework.

With the voting results and alternative framework in mind, the participants returned to their groups. The facilitators asked their groups to consider the strengths and weaknesses of the alternative framework. Those insights are found in the Alternative Framework section below. Facilitators then guided their groups through a refinement process, which included considering the alternative framework, refining the elements and sub-elements, depicting relationships between the elements, and preparing a short presentation for the final plenary session.

Since the two groups worked independently, the final plenary session provided the opportunity for all participants to critically examine the other group’s framework. Each group briefly explained their framework, followed by questions and comments from the other group.

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5 Stephen Bolton, “Understanding the Human Dimension for Unified Action: An Approach to Scholarship, Complexity, and Military Advice,” InterAgency Journal 5, issue 2 (Summer 2014): 43. Major Bolton discusses the benefits of a multidisciplinary approach to scholarship in this academic article, which was provided to participants a week prior to the workshop.

6 U.S. Joint Chiefs of Staff, Joint Operations, Joint Publication 3-0 (Washington, DC: U.S. Join Chiefs of Staff, August 11, 2011), V-1. The participants were introduced to the general concept of the Range of Military Operations and related graphic (with emphasis on prevention and deterrence) during the opening plenary session.

7 Academic fields of the participants include Psychology (4), Sociology (3), Anthropology (3), History (1), International Relations (1), Political Science (1), Cognitive Science and Systems (2), Communications (1), and practitioners of Future Military Concepts (2). Fourteen of eighteen participants possessed a Ph.D., and two participants were pursuing their Ph.D.

8 Although the two groups were not sequestered, care was taken to keep the groups and their work separated.
An executive team from the U.S. Army War College then asked questions and offered perspectives on each draft framework.  

To conclude the workshop, the USAWC Commandant personally thanked the participants, and they completed an exit survey, which once again asked them to individually and anonymously prioritize the top five most important elements for a Human Elements framework. Those results are also found in Annexes D and E.

**Group 1 Framework**

The first task for both groups was to brainstorm, identify, and categorize the most important human elements. Over the course of the workshop, Group 1 decided on eight broad categories, or major elements: Culture, Information, Security, Economics, Physical, Power/Politics, Key Actors, and Unknowns. Because the group adamantly stipulated that all elements were important and that each unique situation would impact the analysis, they assigned no priority order to the elements.

While brainstorming and categorizing the elements, the group asked rhetorical questions about the numerous contexts in which military leaders and planners might use such a framework. This dynamic led one participant to suggest a framework based on questions. Group consensus quickly emerged on this idea. Therefore, instead of expected lists of sub-elements, the group generated a list of supporting and clarifying questions, albeit unrefined, for each category. In turn, these probing and challenging questions will help identify the pertinent sub-elements, including cross-cutting factors for the particular situation. By way of example, the list of questions for the Key Actors element includes:

- Who are the key actors? (persons, organizations, groups, clans, tribes, guilds)
- What are their strategic interests?
- What values motivate them?
- What are the relationships between key actors?
- How are relationships formed between key actors?
- What else do we need to know?

Early on, the group concluded that all identified elements would interact—to one degree or another—with each of the other elements of the framework. One participant sketched out a draft framework that included the major elements, external factors, and feedback mechanisms, which the group then refined into Figure 1 below.

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9 See Annex B for the composition of the USAWC executive team.
10 Comparing the voting results between the end of day one and the end of day two shows convergence for the major elements by Group 1 (Annex D) and divergence by Group 2 (Annex E).
11 Since the group did not prioritize the elements in their framework, the author listed the element with the most votes first (from Annex D) and continued around the framework in clockwise manner.
12 This question was added by author, but it is consistent with the group’s intent.
As the overlapping elements and Linkages circle depict, this framework accentuates the interconnectedness of the human elements. The degree of interaction between various elements depends on the situation and mission. For example, the correlation between Key Actors and Power/Politics may be stronger, considering the second category includes the question: “Who are the key actors?”

Four external factors are depicted with blue ovals: Context/Trend, Non-Linear, Outside Actors, and Change Adaptation. These external factors interact with the elements, sometimes significantly and sometimes obliquely. Participants felt that considering external factors would allow planners to close the cognitive distance some people must travel to understand the human elements in the specific operational environment.

Once more, the participants stressed that when examining these factors for a specific operational environment, a series of questions (rather than checklists) would best serve leaders and planners in preparing for that environment. For example, within Context/Trend analysis, pertinent questions might include:

- What are the changes over time in these elements?
- Given current patterns, what trends do you expect?
- How might particular variables affect this system?
- What is your time frame for decision making?
- How does time of deployment impact operational decision making?
- How is time perceived by local actors?
After conducting an initial human elements analysis, planners and leaders will gain a certain level of understanding and may be ready to take action, as depicted by the blue box at the bottom of the framework. This elastic framework allows for constant feedback and input from the lowest to the highest levels of command, represented by two paths. The *Situational Feedback* path typically incorporates tactical-level input, and the *Model Feedback* path allows for strategic-level input. Participants also felt this framework could be used across the range of military operations, scaled to fit any size operation, and tailorable to any situation.

Partly in response to the alternative framework, the participants emphasized that no one-size-fits-all framework exists due to the complexity of humans, their dynamic interactions, and the changing environments around them. They felt strongly about the adaptive and iterative nature of their framework. They warned the framework would not function properly unless continual assessments were conducted and incorporated. Further exposition of the framework would lead to new critical questions that must be answered in order to increase the odds for success and to minimize harm.

**Group 2 Framework**

Encouraged by the facilitators, Group 2 opened its discussion with a collegial competition of ideas, generating several potential components for a human elements framework. By the end of the first day, the group had created a tentative depiction of their work. A member of the group proposed leveraging Urie Bronfenbrenner’s ecological systems model, which describes complex relationships among child, family, school, community, workplace, social groups, and society, and how these relationships affect child development.\(^{13}\) The associated schematic for this theory resembles that of an archery target with concentric circles extending outward from the child through five types of systems (microsystem, mesosystem, exosystem, macrosystem, and chronosystem), the last of which considers the “change or consistency over time.”\(^ {14}\)

The group carefully adapted this concept to build their framework of human elements, depicted in Figure 2. To best understand the entirety and complexity of the group’s framework, consider it in three dimensions. The elements (blue boxes) make up the first dimension, and the levels of analysis (dashed circles) account for the second dimension. The outermost level, the chronosystem, represents time and serves as the third dimension.

\(^{14}\) Ibid, 40.
Figure 2: Proposed framework developed by Group 2.

For the first dimension, each of the six blue boxes represents a category, or major element, and lists its related sub-elements. The major human elements are: Identity, Social Structures & Institutions, Physical, Psychology, Information, and Basic Needs. Although these elements are represented by discreet boxes, many elements and sub-elements interact with each other. This framework is analogous to a kaleidoscope in that different elements and sub-elements may overlap depending on the view, or level of analysis, creating an infinite number of combinations and influences on human behavior and decision making. For example, the Emotions sub-element under Psychology is also applicable to both the Social and Physical elements, while Population Demography under Physical can ripple through all levels of analysis.

The levels of analysis comprise the second dimension and include: Individual, Core or microsystem, Community or exosystem, Subnational Region, National or macrosystem, and Transnational. The group emphasized that each element or sub-element may be evaluated along any and all levels. For example, depending on the situation, the Psychology element may need to be evaluated at one specific level, multiple levels, or all levels of analysis, not just between the Individual and Core levels as this initial figure may inaccurately suggest.

To better understand the levels of analysis, it is appropriate to start with the individual level. The group felt that individual behavior is the foundation of any human elements analysis, as groups and populations are made up of individuals. Therefore, understanding and developing insights about individuals can serve as building blocks for understanding groups and so on.

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15 Since the group did not prioritize the elements in their framework, the author listed the element with the most votes first (from Annex E) and continued around the framework in clockwise manner.
With that said, depending on the situation, analysis does not need to start with or focus on the individual. This framework is flexible. It is usable from the individual to transnational level and back. The recursive, back-and-forth nature of this framework—depicted by the yellow, bi-directional arrows—allows for any element at one level to interact with a different element at another level. The framework helps to determine why individuals, groups, and populations behave in the manner they do and how their behavior may be influenced.

As mentioned previously, the chronosystem incorporates the third dimension of time. Recognizing there are changes to elements at various levels over time, the framework enables users to understand the degree of salience and motivation. By way of example, a community’s propensity to trust a U.S. military platoon walking through their town today could vary widely based on what individuals and local groups recall from a previous experience. Continuing this example, say a similar U.S. formation dug a well for that community five years ago. That well may have provided a reliable source of water (Basic Needs), generated a positive perception (Psychology), and contributed to the baseline knowledge for the military (Information). Conversely, that same well may have created a king pin that used force to limit access to water for certain groups (Physical and Basic Needs), resulting in security and safety concerns (Basic Needs) and a negative bias and perception (Psychology) or knowledge (Information) that Americans are likely to upset the balance of power and create more harm than good. The history and resulting narrative (Identity) of digging that well contribute to the perception of Americans in that community (Psychology) and help explain how and why they may be received and treated during the next operation. This example certainly shows a high degree of interaction and overlap between the human elements.16

To add yet more complexity, some participants viewed their entire framework as a single node on a larger network of interconnected nodes. The specific node undergoing analysis could be a highly influential individual or group. A network analysis would then be needed to determine the relative importance of a single node among many nodes and to understand which nodes to focus on.

The group felt that participating U.S. military forces should also be incorporated and analyzed using the framework. U.S. military, interagency, and political leaders need to understand their own identities, biases, and institutional structures, and how they interact with the other human elements, in order to avoid ethnocentrism. While the well example above shows some of this desired interaction, the workshop organizers specifically chose to focus on external individuals, groups, and populations as stated in the purpose in order to assist with scoping the two-day event.

Finally, it is important to note a group dynamic observed during the second day. The six major elements were refined after much consideration and discussion of the alternative framework. It is no coincidence that Information, Psychology, and Physical—all major elements

16 Prior to the workshop, the USAWC team discussed the well example in general terms, and Group 2 discussed a similar example of a bridge during the workshop. The author determined the well example had more relevance and connections to the specific human elements from the group’s framework.
of the alternative framework to be discussed later—rose to become major elements in this group’s final framework. While aspects of these three elements were examined by the group on day one, the group recognized and wrestled with the fact that the alternative framework informed their own\textsuperscript{17} When considering definitions for the major elements, the group decided to list the sub-elements to describe the major elements, mostly due to time available.

**Alternative Framework**

The original request by the SLTF was to evaluate and improve an existing, draft framework from U.S. Special Operations Command, depicted in Figure 3 below.\textsuperscript{18} The plenary moderator and group facilitators intentionally introduced said framework at the start of day two to ensure fresh ideas and not influence the development of the frameworks on day one. For similar reasons, the USAWC team did not brief the participants on currently used constructs.\textsuperscript{19} The participants evaluated the framework without benefit of any descriptive or explanatory text.\textsuperscript{20} Both groups conducted a detailed assessment, and not surprisingly, both groups preferred their own framework from the day before, excluding a few exceptions by Group 2. A brief synopsis of each assessment follows.

![Figure 3: Draft framework from U.S. Special Operations Command, referred to as the alternative framework for this workshop.](image-url)

\textsuperscript{17} This awareness of competition sheds some light on the group’s individual voting results. Annex E shows divergence and discrepancies between the group’s final framework elements and their individual votes.

\textsuperscript{18} This draft framework is found in U.S. Special Operations Command’s draft concept document *Operating in the Human Domain* (draft dated September 5, 2014) and the category headings of Psychological, Informational, Physical, Cultural, and Social are also listed in other figures in a draft joint concept document *Human Aspects of Military Operations* (draft dated October 16, 2014).

\textsuperscript{19} Bolton, 46. As examples, Bolton’s paper mentions PMESII-PT and METT-TC in the Situational Understanding section.

\textsuperscript{20} While specific reasons for which elements were included, combined, and prioritized were not known by the moderator, a general description on how and why the framework was conceived was provided during the plenary. The human outline depicts that people possess all five elements, but the placement of each element near any body part is not significant.
Review by Group 1

For the most part, Group 1 thought the alternative framework was too inflexible, and they preferred a framework open to inquiry. This opinion conforms to the group’s heuristic-based framework. The group believed the alternative framework suffered from linear thinking and mirror imaging.

Moreover, the framework revealed two additional and significant shortcomings. First, the framework resembles a checklist—rather than a toolkit—which oversimplifies the task at hand, and may promote a false sense of accomplishment. Second, the framework depicts groups of elements in boxes or stove pipes, suggesting that the elements and sub-elements do not interrelate or compete with each other in what is a dynamic system. For example, the group specifically noted the critical relationships and distinctions between the Social and Cultural categories are not clearly reflected. On a related note, the framework does not include a testing or feedback mechanism. Absent a more comprehensive understanding of the human elements—to include a more complex integration of multiple sources of information, multiple assessment methods, and appropriate feedback mechanisms—this framework may lead to inaccurate assessments and contribute to inconclusive results.

Participants also noted some elements missing from the framework, which they addressed in their own framework through tough questions. For example, deprivation of basic needs relative to other individuals—both in terms of economics and security—is missing from the alternative framework. Related questions could include: What are the sources of power and influence? What individuals and groups are competing and contending for that power and influence (and how)? What tensions and conflicts are created, and who can exploit the opportunities? More specifically, the group mentioned that behavior should be included under Psychological.

Review by Group 2

The review and critique by Group 2 was mixed. While the group found some of the same deficiencies, they found value as well. In fact, as discussed above, the group adjusted their own framework to give more prominence to certain elements from the alternative framework.

Like the other group, Group 2 discussed the lack of connections and relationships depicted by the framework. Intervention in one area causes a ripple effect in other areas. For example, if a Venn diagram were used, it could illustrate the overlap and connectivity between the Physical and Social categories.

The group generated the most discussion and insights with regard to the Cultural category. First, they believed that culture overlaps with other categories more now than it did before 1950 when more boundaries separated groups and greater consistency could be found among those groups. Second, the same cultural dynamic should include a transnational component. Third, since boundaries are less meaningful, people from the same nation state
and culture can possess very different beliefs. Lastly, the group noted that it is easier to change or impact a person or group’s psychology than their culture.

The group felt that security should be explicitly called out because it relates to self-identity, and security is part of what drives human beings. Since security can be multi-faceted to include both physical security and resource security, the group acknowledged the difficulty in incorporating the term. Even though the word security does not appear in their own framework, Group 2 broadly incorporated the concept of security under their elements of Basic Needs, Identity, and Physical.

Having been previously exposed to the alternative framework, one of the group members pointed out that security was intentionally excluded as to not confuse the framework’s purpose at this early stage. The details of the framework itself are not as important as the need to popularize the importance of understanding the human elements. As pointed out, since academic rigor had not yet been applied to this alternative framework, this workshop was able to provide some needed interdisciplinary rigor and analysis.

**Workshop Key Findings (reiterated)**

1. Potential operational environments do not operate according to linear and simple cause-and-effect models, nor can a generic list of traits and characteristics provide sufficient understanding of the dynamic and complex field of human interaction.

2. The two frameworks drafted at this workshop are preliminary and incomplete products. One framework was described as the “preamble to the preamble,” noting that a framework of this complexity requires much more time and effort before it is fully developed.

3. Several components are common to both draft frameworks. Of note, the top human element of Culture for Group 1 and Identity for Group 2 share many of the same descriptions and sub-elements. Additionally, both frameworks emphasized the importance of time, as in changes over time.

4. The resulting draft frameworks should serve as a significant step toward an eventual framework that is general, flexible, and scalable to increase its applicability across the full range of military operations.

5. An eventual framework will not be a panacea, rather it offers a structure to identify the most important human elements for a given situation.

6. An eventual framework should not be viewed as a checklist to hastily complete, but rather a tool to be considered, updated, and refined on a regular basis, including throughout all phases of planning and executing a military operation. This repeated, and at times recursive, refinement applies to both the analysis and the framework itself.
Conclusion

During the final plenary, both groups presented and advocated for their respective framework, and they offered valuable feedback to the collective group. Two days of rigorous examination, debate, and compromise only scratched the surface of this dynamic and complex field of human interaction. The frameworks presented are preliminary and incomplete. While one participant described his group’s framework as the “preamble to the preamble,” another participant rightly cautioned that we should not believe that everything needs to be known before we realize that something is known. In this light, any eventual framework should be employed iteratively so that military leaders and planners can apply what they have already learned and incorporate feedback in order to achieve greater understanding of the human elements and success in their operating environment.

About the author: Lieutenant Colonel Brent A. Kauffman is an Army Strategist assigned to the Center for Strategic Leadership at the U.S. Army War College, Carlisle Barracks, Pennsylvania. In his current role, Brent develops strategic-level events and teaches the Economics of National Security elective. He is a graduate of the U.S. Military Academy at West Point and the Kellogg School of Management, Northwestern University.
Annex A: Workshop Participants

The U.S. Army War College extends its sincere appreciation to the following participants for their significant contributions to the exploration and examination of the human elements of military operations. One participant asked that their name not be included in this listing.

Dr. Brady Cusick, U.S. Government and Johns Hopkins University
Mr. Nick Eremita, Army Capabilities Integration Center
Colonel Barry Gaertner, U.S. Army, U.S. Special Operations Command
Lieutenant Colonel Jeff Gagnon, USMC, Marine Corps Combat Development Command
Dr. Mark Haas, Duquesne University
Dr. Steven Haase, Shippensburg University
Dr. Steve Hall, Naval Postgraduate School
Dr. Ron Holt, Weber State University
Dr. J. Scott Lewis, Penn State University Harrisburg
Dr. Larry Miller, U.S. Army War College
Dr. Barak Salmini, Booz Allen Hamilton
Ms. Joanna Sells, Uniformed Services University of the Health Sciences
Dr. Alisa Sigler, U.S. Government and Interagency Consultant
Dr. Shalom Staub, Dickinson College
Dr. Femina Varghese, Central Arkansas University
Dr. Shalini Venturelli, American University
Annex B: U.S. Army War College Team

Executive Team
Major General William E. Rapp, Ph.D., Commandant, U.S. Army War College  
Dr. Lance A. Betros, Provost, U.S. Army War College  
Colonel Matthew Q. Dawson, Ph.D., Director, Center for Strategic Leadership  
Dr. Thomas J. Williams, Director, Senior Leader Development and Resiliency

Lead Facilitators
Dr. William T. Johnsen, Professor, Department of National Security and Strategy  
Colonel Celestino Perez, Jr., Ph.D., Carlisle Scholars Program

Assistant Facilitators
Mr. Dana C. Hare, Center for Strategic Leadership  
Colonel Paul J. McKenney, Center for Strategic Leadership  
Lieutenant Colonel Robert J. Scanlon, Center for Strategic Leadership

Project Team
Lieutenant Colonel Brent A. Kauffman, Project Manager, Moderator, and Report Author  
Lieutenant Colonel Derek F. Burt, Lead Analyst

Analysis Team
Mr. William H. Cleckner, Analyst  
Ms. Darlene K. Pittenger, Analyst  
Major Jeffrey M. Brashear, Analyst and Budget Officer

Leadership and Support Team
Colonel Richard J. O’Donnell, Director, Department of Strategic Examination  
Colonel Jack K. Pritchard, Director, Strategic Wargaming Division  
Colonel Thomas A. Hays, Director, Strategic Assessments and Operations Research Division  
Mr. James C. Markley, Report Editor and Deputy Director, Strategic Wargaming Division  
Professor James O. Kievit, Rapporteur  
Sergeant First Class Jeffrey R. Hudson, Operations Support  
Ms. Judy L. Sosa, Administrative Support  
Mr. Dale “Rob” Clements, Poster Design  
Mr. K. Scott Finger, Photographer  
Ms. Ruth Collins, USAWC Foundation Support  
Mr. Harry Leach, USAWC Foundation Support  
Ms. Linda Caton, USAWC Foundation Support  
Mr. Kris Kelley, Food Coordination  
Ms. Jessie Faller-Parrett, U.S. Army Heritage and Education Center (AHEC) Coordination
Annex C: Contextual Quotes Provided to Participants

“We seek to...expand the dialogue around the ‘social sciences’ of warfare alongside the ‘physical sciences’ of warfare...This intellectual journey will help inform the Defense establishment’s thinking on better integrating human factors into the planning and execution of military operations to achieve enduring outcomes...Time and again, the U.S. has undertaken to engage in conflict without fully considering the physical, cultural, and social environments that comprise what some have called the ‘human domain.’” – GEN Odierno, Gen Amos, ADM McRaven (2013)

“Current doctrine does not adequately address the moral, cognitive, social, and physical aspects of human populations in conflict. Since the purpose of military action is to affect the behavior of human groups in the operational environment toward a defined objective, the Army must improve the doctrinal representation of the operational environment and account for the socio-economic, cognitive, and physical aspects of human activity.” – U.S. Army Capstone Concept (2012)

“War is shaped by human nature and is subject to the complexities, inconsistencies, and peculiarities which characterize human behavior. Since war is an act of violence based on irreconcilable disagreement, it will invariably inflame and be shaped by human emotions.” – USMC MCDP 1 – Warfighting (1987)

“We had no idea of the complexity of Afghanistan—tribes, ethnic groups, power brokers, village and provincial rivalries...Our knowledge and our intelligence were woefully inadequate. We entered both countries [Afghanistan and Iraq] oblivious to how little we knew.” – Robert Gates (2014)

“This requires forces...with not only the ability to destroy but also the decisive ability to first understand the population within the context of the operational environment and then take meaningful action to effectively influence human behavior toward achieving the desired outcome...The changes required are largely cognitive and cultural in nature. The solutions lie mainly in investing in people and ideas, not platforms.” – LTG Cleveland and LTC Farris (2013)

“The effects of physical and psychological factors form an organic whole which, unlike a metal alloy, is inseparable by chemical processes.” – Carl von Clausewitz

“American strategic culture often overlooks Clausewitz’s insight that strategy is not an exercise with inanimate matter, but with living opponents with interests, passions, decision options, and above all else, a will and goal of their own. It is a profoundly human activity, inspired by human emotions (fear, honor, and interest), guided by human genius and imagination, and conducted by groups and institutions shaped by human leaders and occupied with human actors.” – Frank Hoffman and Michael C. Davis (2013)
Annex D: Individual Voting Results for Group 1

First place votes received five points, second place votes received four points, third place votes received three points, fourth place votes received two points, and fifth place votes received one point.

### Group 1 – Day 1

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Annex E: Individual Voting Results for Group 2

First place votes received five points, second place votes received four points, third place votes received three points, fourth place votes received two points, and fifth place votes received one point.

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