

Human Factors: IO With a Personal Touch

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Editorial Abstract: Today, more than ever, human factors analysis has become an important component within information operations (IO), and more specifically PSYOP, with commanders, planners, and operators recognizing the compelling need to understand the opponent, his information environment, and how to influence him without exercising kinetic options. In this article, Dr. Frank Goldstein of the JIOC/J2 gives compelling reasons as to why the study of human factors is so important to the IO campaign and, ultimately, to the military commander.

The area of human factors and information operations (IO) has recently become of prime interest to commanders, targeteers, politicians, planners, strategic thinkers, and operators. Two questions drive this interest: (1) Does understanding and exploiting human behavior through the analysis of the psychological, cultural, and all other human attributes that influence decision making have value to the war fighter? And, (2) Does exploitation of the information environment used by individuals or groups at any level, in any state or organization, enable the accomplishment of US/Coalition war fighter objectives? The answer to both questions, in theory and in reality, is a resounding yes!

In the global war on terrorism (GWOT) and in more traditional military tactical, operational or strategic operations, analyses of adversary behaviors assist friendly forces in both understanding and exploiting the perceptual and behavioral context of missions within the battlespace. These events can happen regardless of the environment or deployment of traditional battle forces. Achieving human factors insight does not, of itself, win battles or campaigns. The accurate assessment of “human factors” does, however, produce psychological vulnerabilities and susceptibilities for information operators and is becoming a required competency

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for IO. Human factors analysis produces recommendations which advocate all forms of susceptibilities exploitation to achieve a desired behavioral change. A behavioral change can manifest itself in many forms by the subject of interest. The subject may decide not to act in a given situation or to act in such a manner as to assist the operational mission of friendly forces.

The Osama bin Laden story is a case in point. In trying to understand bin Laden and his behavioral roots - would looking at his birth in Saudi Arabia in 1957 be as valuable as his family origin in a “middle

age” village in Yemen; or his religiosity compared to his businessman brother or his early association with the Muslin Brotherhood compared to his family ties to the House of Saud. [1]

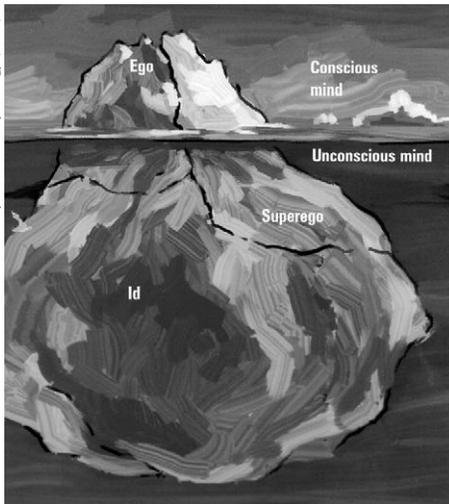
Human behaviors, including psychoanalytic factors, do not take place in vacuums. So, what are human factors and how do they contribute to supporting the Combatant Commander?

Understanding Human Factors

The term, “human factors,” has been used in psychological circles for many years, particularly in aviation and industrial psychology. Human factors has traditionally been a combination of what is known as “human factors engineering,” the design and development of user friendly, “man-machine interface” and the application of human factors techniques to the design and development of system programs.[2] Secondly, human factors has played a key role in selection and screening programs to match individuals with jobs or missions. The most common military type being personality assessments for aviator, Special Forces, or intelligence officer selection. The application of factor analysis to personality and abilities has been ongoing since the 1930s. Great strides in personality assessment



Osama bin Laden (second from right) on a family outing in Falun, Sweden, in 1971.



The study of human personality and the application of factor analysis can help achieve well-defined mission requirements.

occurred in the 1950s, 1960s, and additional formalization occurring in the late 1970s and early 1980s. Personality assessment across ages and cultures is historically significant, with modern evidence suggesting that the dimensions of human intelligence, ego strengths, anxiety, etc. have universal “factor” dimensions.[3] When “human factors” are combined with other attributes (data), the collected data then forms a baseline of human information.[4] This human factors data, when operationalized using IO core capabilities and related activities, can support well-defined mission requirements.

Supporting Information Operations

As US forces prepared for Operation Iraqi Freedom, the J52 (reorganizing as J2) at the Joint Information Operations Center (JIOC), proposed the study and development of a defined model for the purpose of precision influence operations. The focus of the effort was to ensure a process that offered a non-duplicative influence capability to theater and Joint Task Force (JTF) planners and warfighters.

The JIOC established a small cell to provide a focused influence capability on a set of individuals in response to specific tasking from the joint community. The results of the specific tasking indicated that the formalized JIOC process could provide CCDRs with precision influence information that supported regional plans and operations. As a result of the operational value derived from these initial efforts, other CCDRs requested JIOC provide similar precision influence information on target sets within their areas of responsibility.

The JIOC’s Precision Influence Cell was then formalized to support geographic and functional CCDRs, Joint Staff, and interagency requirements for influence actions. Thus, precision influence operations focused on the development of information in the cognitive environment of the battlespace in order to influence targets toward behaviors consistent with the goals and objectives of the CCDRs. Precision influence targeting, then, attempts to exploit individual psychological and informational vulnerabilities and to recommend IO methods of delivery and exploitation.

Working Together: The Difference

Many agencies and organizations are involved in “human factors” analysis but not all products are the same. It is the JIOC’s intent to complement existing intelligence reports or activities. To accomplish its mission, the JIOC team relies heavily on existing targeting, planning, analytical, and intelligence processes to create fast, flexible, reliable, and actionable precision influence information. Building on existing products, the cell fuses psychological (cognitive, emotional, behavioral) with

cultural, sociological, and intelligence data to enable planners and warfighters to carry out precision influence operations. [5]

Creating Unique Products

A unique and valued aspect of the JIOC Precision Influence Cell is its use of doctoral level experts in human behavior and psychopathology to produce assessments of high value individuals. Psychological vulnerabilities of these individuals can be exploited to produce specific effects, such as influencing behavior in fashions that further tactical, operational, or strategic intents. Because detailed data ordinarily available to clinicians is not generally accessible for forming an individual “profile,” a “psychological perspective” is crafted that can enable development of influence tactics.

This emphasis on clinical pathological vulnerabilities differentiates JIOC precision influence activities from other intelligence analytical approaches. Whereas most analytic approaches produce reports that “straight line” observed behaviors into predicted behaviors and responses, the JIOC precision cell analysis project a far broader reach into possible reactions to internally as well as externally produced stressors.

For example, the standard data point of an individual’s financial troubles leads to a lay interpretation that the “subject of interest” can be predictably influenced by providing money as a bribe. A clinician’s evaluation, however, may reveal the

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presence of an underlying psychiatric or psychological disturbance such as bipolar disorder, which can present as



A psychological evaluation of Omar Qadhafi revealed a number of vulnerabilities in his decision-making that could be exploited.

excessive spending. Not as rare as is generally thought, the presence of bipolar disorder opens up a remarkable range of vulnerabilities such as episodic but severe judgment lapses, sexual improprieties, and periods of incapacitating depression, as was evidence by Muammar Khadhafi of Libya (who is bipolar) after the US airstrike in 1986.[6] Such an analysis can help avoid such simplistic influences as a bribe, and instead provide rich family, behavioral/psychological, and medical options to influence that individual's conduct.

However, psychological diagnosis alone is insufficient to provide CCDRs with reasonable courses of action. Additional critical facets of applied human influence are culture and/or group aspects of behavior. Rarely can an individual be maneuvered into a favorable behavioral pattern without a culturally specific understanding of that individual's environment. A grasp of demographics, sociology, language, and group behavior may be critical to successful analysis of vulnerabilities and the application of that analysis to the battlespace.

Another aspect of precision influence is the operationalization of these findings consistent with IO capabilities of the JIOC. CCDRs are interested not only in whether a subject or group of high interest might be influenced advantageously, but how. For example, how would an "individual of interest," best be

influenced: through electronic means, deception, psychological operations or even kinetically (physical attack)?

The methodologies necessary to achieve these areas of influence are encompassed throughout the intelligence community and the work is ongoing to improve, model and structure human factors use and understanding within the joint operations community. However, JIOC, with its combination of doctoral level behavioral science expertise and CCDR Support Teams, fuses both human factors and broader-based IO knowledge in support of warfighters.

Keys to Success

Today, human factors analysis is evolving as a major component of IO, with commanders, planners, and operators recognizing the compelling need to understand the opponent, his information environment, and how to influence him without exercising kinetic options. In the words of valued colleagues, "all missions have a human context: cultural, organizational, psychological." [7] JIOC's Precision Influence Cell, in coordination with planners, intelligence organizations,



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and other analysts, is striving to meet new demands to influence human behavior. The ability of the intelligence and IO communities to strengthen collaboration, define rules, and enhance the analysis and operational use of human factors will determine the future impact on CCDRs.

Endnotes

[1] *Holy War Inc: Inside the Secret World Osma bin Laden*; Bergen, Peter L.; The Free Press; New York; 2001; page 41-47

[2] *Aviation Psychology*: Edited by Richard S. Jensen. GOWER Technical 1989.

[3] *Identity and the Life Cycle*; Erikson, Erik H.; International Universities Press, Inc.; New York; 1968

[4] *Handbook for the Sixteen Personality Factor Questionnaire (16PF)*. Cattell, Raymond B., Eber, Herbert W. And Tatsucker, Maurice M. Institute for Personality and Ability, Inc. Champaign, IL. 1970.

[5] Human Factors and Precision Influence conversations and opinions of the following: J52, JIOC, US STRATCOM, LTC R. Rushing, 1LT Scott Douglass, Mr. W. Swartz, LTC H. Rauch, Mr. E. Wallace, Mr. B. Duffy, COL M. Pribble; NAIC/BPFB, Mr. G. Jannarone, Mr. D. Harrison, Mr. J. Morris; DIA/HFAC, All who provided direction, roles, and understanding.

[6] *Psychological Operations: Principles and Case Studies*. Goldstein, Frank L. Editor. AU University Press. 1996

[7] Ibid, #5 