Beyond Socio-Cultural Sensemaking: Observing and Interpreting Patterns of Life

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ABSTRACT

Military leaders have identified a need for socio-cultural sensemaking capabilities to support operations in irregular conflicts. However, training programs lack practical applied techniques for such sensemaking. For example, observational training programs such as Combat Hunter instruct warfighters to set socio-cultural baselines, but provide little specific instruction on relevant sensemaking processes; furthermore, little of the existing or proposed socio-cultural training robustly integrates field-tested methodologies and concepts from anthropology or other social sciences. A related issue involves the overemphasis that training and policy recommendations place on "culture" as a rigid concept. Warfighters may overcompensate by focusing too much on culture over other relevant factors, and often treat culture as a fixed entity that can be read at a superficial level. Culture, however, is a fluid construct without fixed boundaries that constantly interacts with other factors and situational exigencies; the complexity of social systems alongside cultural mixing and shifting within operational environments demands a more holistic model.

In a 2012 I/ITSEC paper, our team outlined a concept of archetypal, cross-cultural Patterns of Life for training in virtual environments. In this paper we propose a revised concept of Patterns of Life as a critical thinking framework that extends beyond culture to incorporate human and non-human actors, practices, functions, environmental interactions, and temporal, cultural, and situational contexts that better reflect social science theories. We also draw on prior perceptual training and ethnographic methodologies to define an Ethnographically-informed Sensemaking Protocol consisting of a nested, iterative process of framing and baseline construction that supports both individual encounters and the entirety of a warfighter's deployment; this will improve sensemaking and framing baselines in complex, uncertain environments, and allow applicability across operational environments. We discuss the theoretical foundations of this revised approach, and then provide a brief summary of the current state of the framework and protocol.

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INTRODUCTION

This paper discusses a transition from a computational modeling approach toward sociocultural sensemaking training toward a critical thinking framework and sensemaking protocol for the human domain. First, we briefly contextualize earlier work and the training gaps addressed. Then, we provide a detailed overview of the theoretical basis for the conceptual categories and sensemaking protocol proposed herein, drawn from ethnographic methodology and other social sciences. Finally, we briefly summarize the Patterns of Life (POL) conceptual framework and the Ethnographically-informed Sensemaking Protocol (ESP).

RESEARCH TRANSITION

Numerous sources have articulated the need for improved warfighter cultural knowledge and skills, positioning culture as essential to irregular operations and counterinsurgency (e.g., Cabayan et al., 2013; Joint and Coalition Operational Analysis (JCOA), 2012; Selmeski, 2007; U.S. Department of Defense, 2010; U.S. Department of the Army, 2006). However, previous review found that culture-specific and culture-general training in use within the military leaves numerous gaps and is frequently viewed as insufficient (Schatz, Folsom-Kovarik, Bartlett, Wray, & Solina, 2012). In particular, warfighters find much of the culture-specific knowledge non-actionable, requiring additional skills and tools to implement, and have difficulty bridging from culture-general "good stranger" style training to action in specific situations. Various cross-cultural competency (C3) models have identified cultural sensemaking as an important subskill to augment cultural training and facilitate decision making (Abbe, 2008; McCloskey, Behymer, Papautsky, Ross, & Abbe, 2010; Rasmussen, Sieck, Crandall, Simpkins, & Smith, 2011; Rentsch, Gunderson, Goodwin, & Abbe, 2007). As of yet, however, we have seen no specific sociocultural sensemaking process provided to train this capability. Furthermore, recent joint military efforts have been directed past "culture" towards a more robust, holistic concept of "the totality of the human sphere of activity or knowledge" (U.K. Ministry of Defence, 2010, pp. 3-5) known as the human domain, increasing the operational importance accorded to this domain as well as the need for complex skills to effectively work within it (e.g., Hoffman & Davies, 2013). A need clearly exists, therefore, for training on a specific, actionable process that instructs warfighters on *how* to perform sensemaking within the human domain as a whole, and *what* to look for when attempting to build a mental model of social structures and patterns of behavior.

As part of our team's efforts to improve warfighter perceptual–cognitive training, we explored ways to train intuitive sociocultural sensemaking skills within simulated environments (Schatz & Bartlett, 2013). In previous years our work emphasized computational modeling approaches for simulating patterns of life, i.e., "archetypal emergent properties of a complex sociocultural system" (Schatz et al., 2012, p. 4). This approach, while of interest to simulation in the long run, still leaves a gap for directly actionable skills and concepts. To that end, we have redirected our research toward concepts and cognitive tools to facilitate human domain sensemaking across a range of operational environments. In this paper, we outline a revised concept of Patterns of Life (POL) as a conceptual framework to guide critical thinking about complex social systems, augmented by an Ethnographically-informed Sensemaking Protocol (ESP) that outlines an inductive, iterative process of observation and interpretation. We also expanded the theoretical basis beyond commonly-referenced military, training, and psychology literature. In short, we draw from established social science to (1) illustrate *what* warfighters should attend to when reading the sociocultural environment, (2) explain *how* warfighters should conduct human domain sensemaking, and (3) bridge developing military concepts with the broader transdisciplinary theoretical community.

The purpose is not to recreate warfighters in the image of social scientists, but to provide warfighters with a framework and protocol that is appropriate to their mission and skill set. Qualifications for POL and ESP are that they should be realistic, usable, and repeatable, i.e.:

- **Realistic** means based on reasonable expectations not that warfighters will be equivalent to Ph.D. social scientists or subject matter experts, but rather will be able to better construct an understanding of their operational environment to facilitate decision making and mission completion
- **Usable** refers to concepts and processes that can be reliably used by warfighters within operational constraints and to support mission goals
- **Repeatable** indicates not only that warfighters can re-enact the procedure but that they can do so across a variety of operational environments, regardless of the specific location or type of mission.

FOUNDATIONS

We surveyed theoretical and methodological literature across several domains in order to develop the currently proposed framework and protocol. Our work also builds upon the primary author's field experience refining and using high-risk ethnographic techniques in austere and dangerous environments, including work as an embedded social scientist with U.S. military personnel during 2007 (see Rohde, 2007). As part of work with Civil Affairs, Provincial Reconstruction Teams (PRT), the Law Enforcement Professional (LEP) Program, and Special Operations Forces (SOF), the primary author instructed warfighters and civilians supporting humanitarian assistance efforts in an ethnographically-derived process similar that outlined in this paper.

The research thrust was directed by several considerations: (1) emphasizing areas of literature that have been less fully explored in previous military training recommendations; (2) focusing on knowledge and skills that are transferrable across operational environments; (3) accommodating complex environments; and (4) considering operational limitations. Therefore, rather than focusing on anthropological literature that defines "culture," we explored the intersection of complexity theory with social science, practice theory, and anthropological theories, and used inductive, iterative research and inquiry methodologies as inspiration for best practices.

Outlining the Human Domain: Social Complexity and Practice Theory

Though recommendations and requests for training place "culture" at the center of consideration we argue that focusing solely on the cultural aspect of human domain will not meet operational needs. Commanders and other personnel have noted that when warfighters engage with populations in the field, "although national boundaries may be clear, cultural boundaries frequently are not" (Abbe, 2008, p. 5). Individuals may belong to multiple cultural or subcultural groups simultaneously. Globalization and electronic communication have resulted in a "global cultural flow" and continual "tension between cultural homogenization and cultural heterogenization," which creates changing and coexisting ethnoscapes—shifting landscapes of individuals and ethnic groups—within geographically-defined boundaries (Appadurai, 1990, pp. 5–6). This transformation and tension also rests atop legacies of colonialism and nation-state boundaries drawn by outside powers with no consideration of existing ethnic communities (as illustrated aptly in Afghanistan; see Schetter, 2005). Moreover, situational factors moderate cultural values and motivations, creating "cultural paradoxes" where individuals do not behave according to expected norms (Osland & Bird, 2000). Precise boundaries where culture's impact begins and ends and which culture (if any) drives human behavior in a given instance are difficult, if not impossible, to satisfactorily illustrate. Ultimately, both theory and warfighters' lived experiences illustrate that training to unitary concepts of "culture" has been insufficient.

Social complexity: The human domain is a *complex system*, i.e., "far from equilibric, open and … complex adaptive" (Byrne & Callaghan, 2014, p. 26). Society features a large number of individual elements (humans) interacting in a rich, dynamic, and non-linear fashion; various nested sub-systems under the umbrella of society (e.g., language) can themselves be considered complex systems. Schools of thought in the humanities, such as postmodernism, that emphasize multiplicity, discourse, and situated, partial knowledge are now exploring complexity theories derived from mathematics and biology to describe, theorize, and negotiate the domain of human activity (Cilliers, 1998). Complexity theory therefore offers a useful language and structuring concept for social action and emergent patterns of behavior which resist fixed generalizations yet still permit discussion of trends, which integrates well with strains from philosophy and cultural studies that have been too often ignored in the military research and recommendations.

Complexity theory informs this work in several ways. First, the dynamic self-organizing systems concept reaffirms emphasis on individual actors and how behaviors aggregate to develop emerging patterns. Second, the importance of local information, change, and communication in complex systems works alongside theories of cultural shifting and multiplicity to prioritize local assessment and continuous re-baselining rather than broad generalization. This answers recent research on irregular warfare dealing with local knowledge and operations to address micro-conflicts (Evans, 2012) as well as commentaries on the failures of counterinsurgency (COIN) that mention low understanding of local context and erroneous application of concepts and techniques from other regions or conflicts (e.g., Eikenberry, 2013; Wittmeyer, 2013). Third, complex systems are "not wholly or even substantially separate from other systems because self-organization … depends on interchanges of energy, matter and information with all other aspects of reality in all forms," (Byrne & Callaghan, 2014, p. 66) supporting the relevance of the material environment, objects, and nonhuman actors within POL and the emphasis on holistic models and relationships. It pushes warfighters to consider the human domain as a whole, rather than dividing the environment into discrete analytical segments (e.g., in models such as PMESII [Political, Military, Economic, Social, Information, and Infrastructure] or ASCOPE [Area Structures Capabilities Organizations People and Events]). Complexity theory states that although "systems 'are just' collections of their elements, it does not follow that we can *explain* the system's behavior by reference to its parts … we must make recourse to holistic concepts that refer to the behavior of the system as a whole" (Garfinkel, 1987, p. 202). For instance, economic issues and the environment interact with cultural/ideological motivations (or be the underlying factor covered by ideological or cultural narrative) to drive patterns of violence. This balance of holistic system sensemaking coupled with local observation and assessment strongly informs the structure and intended use of POL and ESP.

Practice theory: Warfighters conducting human domain sensemaking may be subject to a number of limitations or constraints, such as shortened time frames, inability to converse freely or at length with local individuals, likelihood of inaccurate information from local individuals, and language barriers. These hamper understanding the "emic" or "first-person" local perspective, or determining cognitive structure-based concepts of culture. To be sensitive to these constraints we surveyed literature regarding observable practices and behaviors. Though ethnographers use detailed interviews to develop a rich understanding of the cognitive structures and alternate perspectives of different cultures, observable behaviors, physical aspects of the environment, and manmade artifacts are also of vital importance. Ethnographer Clifford Geertz (1973) explains that "Behavior must be attended to, and with some exactness, because it is through the flow of behavior—or, more precisely, social action—that cultural forms find articulation" (p. 17). This attention to behavior finds support and extension in practice theory (see Reckwitz, 2002; Schatzki, Cetina, & von Savigny, 2000). Attention to practices provides observable information even within operational restrictions. Furthermore, practice theory attempts to liberate human agency from overly deterministic and restrictive ideas of social structure (e.g., Bourdieu & Nice, 1977) and combine an emphasis on individual agency with patterns of shared practices and sociocultural restraints on agency. While practices "resemble macro phenomena in constraining individual activity and organizing the contexts in which people act, they never possess the *sui generis* existence and near omnipotence sometimes attributed to structural and wholist phenomena" (Schatzki et al., 2000, p. 14). We find this a satisfactory fit with complex systems theory, and to provide a useful mitigation of the over-generalization and inflexibility seen in current training approaches to culture. In addition, we reviewed anthropological traditions such as Marvin Harris' (1979) cultural materialist approach, which emphasizes primary attention to the environment, aspects of production, and material conditions as the foundation of culture; cognitive structures and traditions all stem from, build upon, and reflect those. This reaffirms our inclusion of objects, the environment, and nonhuman actors within the scope of concern for sensemaking.

Defining Processes: Ethnography as Sensemaking and Grounded Theory

In seeking to build a human domain sensemaking protocol that can be used within warfighters' operational constraints, we turned to two areas of methodological literature: grounded theory, to facilitate inductive inquiry; and rapid ethnographic methods, for condensed periods of investigation. Both approaches use iterative processes and triangulation of data through multiple sources. Our turn to social science methodology is in keeping not only with the primary author's field experience with military and civilian personnel, but with growing interest in ethnography and other social science methodologies for cross-cultural competency (e.g., Rentsch et al., 2007; Sands, 2012).

Ethnographic methodologies: Warfighters, like ethnographers, are faced with "a multiplicity of complex conceptual structures, many of them superimposed upon or knotted into one another, which are at once strange, irregular, and inexplicit, and which [they] must contrive … to grasp" (Geertz, 1973, p. 10). That is, individuals confronted with

another culture or environment must engage in sensemaking. Weick (1995) explains sensemaking as a process through which individuals develop plausible explanations based on their knowledge and perceptions, and that it is enacted (i.e., the sensemaker's presence and activities affect the state of the environment and the progression of the situation). Ethnography, as "a scientific approach to discovering and investigating social and cultural patterns and meanings in communities, institutions, and other social settings" depends on the researcher as instrument and sensemaker (Schensul, Schensul, & LeCompte, 1999, p. 1). We propose that ethnography constitutes a formalized manner of sociocultural sensemaking, and therefore we can draw inspiration from field-tested ethnographic methodologies to develop a protocol usable by a non-specialist audience.

Sensemaking and ethnography share several characteristics which we feel make ethnography a suitable fit as a guiding process. First, both involve *local* observation and enactment (Schensul et al., 1999; Weick, 1995). Second, it was important to help warfighters understand issues of perspective and interpretation, and their role in the situation. The identity of the sensemaker or researcher grounds sensemaking (Colville, Pye, & Carter, 2013; Weick, 1995) and ethnographic methodologies also foreground the importance of the researcher's identity and perspective (e.g., Clifford & Marcus, 1986) as well as introducing the concept of both "emic" (insider/local) and "etic" (outsider/observer) identities and perspectives (Harris, 1979). Third, in keeping with critical thinking concepts and ethical concerns regarding cultural judgment, both sensemaking and ethnography focus on developing plausible, workable explanations rather than asserting complete or objective knowledge (Geertz, 1973; Klein, Moon, & Hoffman, 2006; Weick, 1995). Sensemaking is described as a continuous, ongoing process (Klein et al., 2006; Weick, 1995); ethnographic methodologies also emphasize ongoing work to build an understanding of culture, but formalize that into structured, iterative processes (Beebe, 2001; Bernard, 2006; Handwerker, 2001; Spradley, 1979) that can serve as more solid procedural ground for warfighters.

Grounded theory: To reflect warfighters' operational circumstances—i.e., outside a formal research context with explicitly defined hypotheses or theoretical basis—and to address biases and assumptions, we draw from the qualitative grounded theory approach. Grounded theory is an inductive method that begins with data collection and develops emergent localized theory, rather than deduction from defined hypotheses or theoretical approaches (Charmaz, 2006; Glaser & Strauss, 1967; Strauss & Corbin, 1990). Grounded theory is an iterative process, defined by continuous and simultaneous collection and analysis/processing of information, as opposed to one-pass separate collection and analysis phases; this accords with the ongoing sensemaking and mental model development required by warfighters and with iterative ethnographic approaches. Grounded theory also privileges study of specific situations, practices, and processes, which we emphasize in our model.

Enacting ESP will heavily depend on self-awareness, reflexive questioning, and an understanding of how various biases and approaches affect interpretation. Urging warfighters to understand their individual and socio-cultural backdrop, as well as the particular role and function they serve in the situation can never completely mitigate issues of bias and limited knowledge, but will be a useful component. It may also facilitate appropriate action and successful mission completion. Misaligned understanding of roles and expectations has been shown to negatively impact sensemaking and decision making in operational scenarios, for instance in counter-terrorism operations that resulted in inappropriate lethal action (Colville et al., 2013). One particular tool to facilitate this process is situational mapping, laying out and drawing connections among "the major human, nonhuman, discursive, and other elements" in a given situation, including the observer, focusing attention onto the situation itself (Clarke, 2005, p. xxii). This technique does not require technical expertise or rigorous research methods training, and lines up well with the categorical and contextual elements we identify in the POL framework. Like Clarke, our "fundamental assumption is that everything in the situation *both constitutes and affects* most everything else in the situation in some way(s)" (2005, p. 72). Though formalizing the situational analysis process on paper would be limited to longer-scale sensemaking and mental model adjustment across the overall deployment or multi-part missions, POL and ESP guide warfighters to thinking in this manner, allowing them to engage in the process mentally during shorter-term periods of sensemaking.

The methodological processes and concepts we draw from will help warfighters think critically and understand their knowledge and sensemaking as situated and fluid. The combination of rich, localized, inductive, reflexive, appropriately framed, and situationally-focused processes may lead warfighters closer to what Donna Haraway proposes as "a usable, but not innocent, doctrine of objectivity" based on situated, embodied knowledge that emphasizes and enables accountability (1988, p. 582).

Table 1: Summary of theoretical roots and relevant reviewed literature

	Aspect	Associated Theories	Citations
Patterns of Life	Focus on observable practices (particularly for distal OPs)	Practice Theory, Anthropology	Bourdieu & Nice, 1977; Geertz, 1973; Reckwitz, 2002; Schatzki et al., 2000; Turner, 1994
	Societies as complex systems	Complexity Theory	Byrne & Callaghan, 2014; Cilliers, 1998; Garfinkel, 1987
	Importance of nonhuman actors and objects, plus environment	Grounded Theory, Anthropology	Clarke, 2005; Geertz, 1973
	Value trumping (situational factors override cultural motives)	Sensemaking	Osland & Bird, 2000
Ethnographically-informed Sensemaking Protocol	Local assessment	Ethnography, Complexity Theory	Bernard, 2006; Byrne & Callaghan, 2014; Cilliers, 1998; Fetterman, 2010; Schensul et al., 1999
	Short-term research and assessment processes	Rapid Ethnography	Beebe, 2001; Handwerker, 2001
	Inductive research	Grounded Theory	Charmaz, 2006; Clarke, 2005; Glaser & Strauss, 1967
	Iterative research/inquiry cycles	Ethnography, Grounded Theory	Bernard, 2006; Charmaz, 2006; Glaser & Strauss, 1967; Schensul et al., 1999; Spradley, 1979
	Situational analysis and mapping	Grounded Theory	Clarke, 2005
	Framing/self-awareness	Ethnography, Sensemaking, Grounded Theory, Situated Knowledge	Clarke, 2005; Clifford & Marcus, 1986; Colville et al., 2013; Haraway, 1988; Weick, 1995

A FRAMEWORK AND PROTOCOL FOR HUMAN DOMAIN SENSEMAKING

POL and ESP are not exclusive solutions that will, in and of themselves, solve the matter of cultural competency. They represent critical thinking and inquiry skills that specifically build human domain sensemaking capabilities. Though implementing ESP and POL does not require specific cultural knowledge, wherever possible warfighters should have knowledge of the particular cultural context. This understanding feeds into sensemaking and allows warfighters to better identify and interpret POL aspects, then build more accurate mental models.

We sought to keep the framework and the protocol steps general enough to remain applicable across a variety of locations and situations, since recommendations for military cultural training frequently emphasize "generalizable concepts about culture and skills that enable leaders and Soldiers to learn about and adapt to unfamiliar cultural environments on their own" (Abbe, 2008, p. vii). Many cultural, situational, and practical situations or aspects should comfortably align within POL elements and be adequately assessed using ESP. We intend these concepts and processes to provide greater explanatory power and allow for more flexible construction of emic understandings of local social groups and situations than existing frameworks (e.g., Hofstede, 1984, which has come under some criticism; see, for instance, McSweeney, 2002) that may define concepts on limited binary scales, impose Western construct definitions on other ethnic and cultural groups, or omit crucial factors.

The Patterns of Life (POL) Critical Thinking Framework

The Patterns of Life framework offers a way to conceptualize basic elements of complex social systems. This informs what personnel should attend to when observing the operational environment and how these elements work

together. As Just and Monaghan (2000) recommend, POL emphasizes *how to think* about the human domain rather than particular information or discoveries. One issue with culture-specific training is that warfighters find it difficult to understand the relevance of information and make it actionable (Davis, 2010). By developing a flexible critical thinking framework, we anticipate that POL will help contextualize information provided in pre-deployment culture-specific training and demonstrate how facts are significant, relevant, and actionable.

Though the provided elements do not exhaustively encompass all items or concepts of interest, and all elements may not be relevant (or equally weighted) in any given situation, POL directs warfighters to attend to several key factors: actors, both human and nonhuman, present in the situation; the function served by actors and objects; centers of gravity, whether physical or sociocultural/psychological; and various forms of both time and space, including "natural," mythological, socio-cultural, and psychological (see Table 2 below). These elements are intended to engage warfighters at a deeper level of complexity and understanding compared to traditional models or taxonomies (e.g., PMESII and ASCOPE) which use generalized information and decontextualized numerical data. Our suggested elements draw from several fields within anthropological, sociological, and philosophical literature to translate abstract or non-intuitive concepts to a military audience. By turning to concepts such as socio-cultural and mythical forms of time and place, we attempt to prompt consideration of the emic or insider perspective on meaning as opposed to more firmly etic or quantitative models.

Table 2: Sample elements of POL

Element	**Definition**
Actors	Human or non-human that has the potential for, and may exert, agency
Functions	Interpretation of the actions and/or significance of an individual actor/object within, and produced by, a particular context and that can change over time; may overlap with roles, but are more discrete and contextually limited; functions provide meaning
Centers of gravity	Locations or individuals that exert force on patterns of life, e.g., drawing people to them (physically or in terms of interaction/attention) or pushing them away
Mythological[1] space	Sacred, spiritual, and/or religious definitions, conceptions, and uses of space (e.g., hallowed ground or ideas of a 'promised land')
Socio-cultural space/place	Divisions and uses of space linked to social structures and histories (e.g., racial segregation patterns or migration routes for nomadic groups) (Mark, Turk, Burenhult, & Stea, 2011)
Psychological space/place	Individual or shared conceptions, delineations, or uses of space and place that may not fit into the mythological or socio-cultural categories (e.g., individual personal space)
Mythological time	Religious and sacred conceptions of time; for instance whether time is linear or circular, as well as narratives and understandings of sacred origins and eras, often manifesting in a "nostalgia for origins" or narratives of divinely relevant endings of time (Eliade, 1967, p. 44, see also 1971, 1998)
Socio-cultural seasons	Temporally limited or defined patterns of life specifically related to the local culture(s), such as religious holidays, agricultural practices, or nomadic migration periods; the cadence of a culture
Psychological seasons	Emotional and cognitive patterns occurring in discrete time frames and phases, whether linked to natural time (e.g., Seasonal Affective Disorder), cultural practices and seasons, or situational timelines (e.g., common emotional responses to disasters)

Rather than discrete components that can be isolated in keeping with traditional analysis methods, however, the way these elements interact with, overlap, and incorporate multiple sub-systems within the human domain is vital. Elements of POL do not have concrete meanings that transfer from situation to situation, but must always be

[1] 'Mythology' here does not refer specifically to religion or involve judgments regarding truth, but relates to narratives of shaping importance to a group; they can shape national identity, e.g., American myths of self-reliance and the Old West (see Miller, 1997; Stewart & Bennett, 2005 on national myths) and involve even recently lived historical events

interpreted within local context. Relevant contexts may be cultural or situational (e.g., business processes or economic factors). Due to the complexity of the human domain, component elements of POL may also function as context; for instance, a given socio-cultural season may have unique practices and signifiers and also alter how other practices or functions should be interpreted.

As an illustrative example of POL, in several countries militant Islamist groups, sometimes linked to Al-Qaeda, vandalize Sufi shrines (e.g., Kirkpatrick, 2012; Tharoor, 2012). These shrines, which may not always be obvious as religious sites to outsiders, frequently act as centers of gravity for religious pilgrimages, which bring economic activity to nearby or hosting villages. When shrines are destroyed, it may interrupt pilgrimage routes and practices, as well as negatively impacting the financial health of the area. Warfighters may benefit from being able to observe and comprehend the shrines as centers of gravity, but also the sense of mythological and psychological space they represent for several reasons. Establishing rapport with local inhabitants and attempting to implement stability or aid operations will benefit from an understanding of factors that drive individuals' connection to their home and of less obvious critical factors for community health and stability. For instance, building a school or a clinic may not address destabilization brought on by shrine destruction. Furthermore, the destruction and vandalism of objects or property, particularly of great religious or other cultural significance, functions as a form of violence by proxy and intimidation against individuals who are not aligned with the group committing the aggression. Understanding this factor may assist warfighters in understanding how to grasp and approach situations in these localities.

The observation and interpretation of POL is conducted via an iterative, reflexive, and reflective sensemaking process which we outline in the following section.

The Ethnographically-informed Sensemaking Protocol (ESP)

The Ethnographically-informed Sensemaking Protocol (ESP) is an inductive, iterative process of observation, inquiry, and interpretation. As complex systems behavior emerges from, and is dependent on, local information and contexts, this process should be conducted at the local level. To avoid erroneous generalizations and ensure sensitivity to particular situational and practical impacts, warfighters must augment broad cultural information and culture-general skills with a robust understanding of local POL. Here again we emphasize the constant tension of complex systems between local and system-wide, between individual actors and larger Patterns of Life. Sensemakers operate locally, but should maintain an awareness of larger systems and framing contexts. Ethnography works within this structure, focusing on a deep understanding of the local environment but with an eye directed toward larger systems. As Schensul et al. explain, "all ethnography is local…[it] builds local theory--theories that explain events, beliefs, and behavior in the special site an ethnographer is studying"; these understandings feed up into, and exist within, "a broader socioeconomic and political context" that is "essential in order to situate local experience and cultural observations" (1999, pp. 5, 7).

We define ESP on two levels: a high-level iterative process which contains a layered component process illustrated per encounter. At the top level, warfighters conduct an ongoing cycle of integration, interpretation, and mental model refinement; this can occur during a single mission or span an entire deployment. Sensemakers implement a cognitive cycle in which they identify relevant actors and/or agencies as sources for information; take their experiences and interpretations from a particular encounter, share, and collectively interpret knowledge with partners and stakeholders; update and refine their mental models based on new input (whether gained directly through the encounter or indirectly through others); identify knowledge gaps to ascertain where particular inquiry or further observation may be needed; and re-engage with the situation or population of interest. Sensemakers should also regularly validate and triangulate their knowledge and interpretations through other sources where possible.

A layered process of observation, integration, and communication occurs during this cyclical process (see Figure 1). ESP depends first on consistent self-reflection and framing. This addresses concerns in social sciences regarding bias and outsider perspectives or judgment on disparate cultures (e.g., Clarke, 2005; Clifford & Marcus, 1986; Haraway, 1988; Said, 1978) as well as sensemaking research that places identity as central to perception, interpretation, and decision-making. Weick (1995) aligns identity and meaning construction, stating "What the situation will have meant to me is dictated by the identity I adopt in dealing with it. And that choice, in turn, is affected by what I think is occurring. … I derive cues as to what the situation means from the self that feels most appropriate to deal with it, and much less from what is going on out there" (p. 24). Therefore warfighters should

understand not only their personal and cultural standpoints, but also their functions within the situation and others' perception of that function.

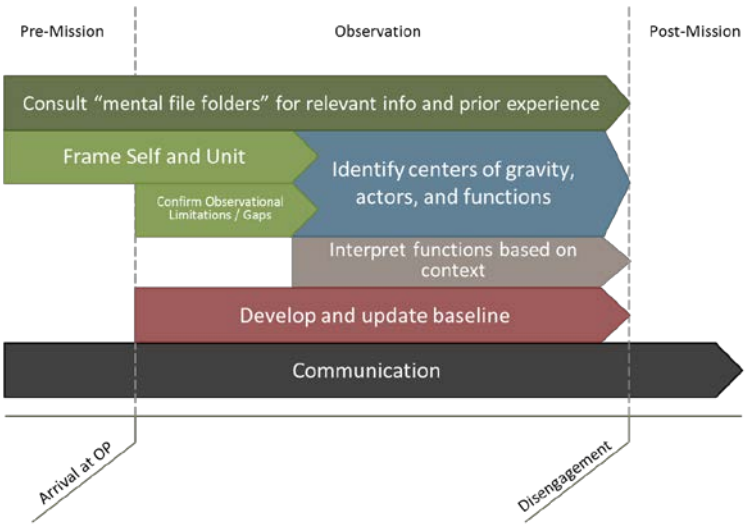

Figure 1: The layered ESP process

Once in the situation, warfighters attend to and identify POL elements, and compare their perceptions to existing mental models or "file folders" formed through training, pre-mission briefing information, prior experience, and other knowledge gained about the local environment. Observational input and mental models are evaluated within cultural and situational contexts and applied, modified, or discarded as needed. As warfighters aggregate information, they can construct reasonable baselines of activity patterns within the relevant contextual frames. Finally, communication occurs throughout the process—this includes communication within the warfighter's unit and chain of command, but also with local people and the environment. Even in distal operations, where warfighters do not speak or interact directly with the local populace, the known or assumed presence of military personnel may affect behavior. As warfighters make decisions, those courses of action also influence the environment. Research on sensemaking, particularly in high stress crisis situations, describes it as an 'enactive' process because "when people act, they bring events and structures into existence and set them in motion" (Weick, 1988); this actually produces the sensemaking environment, including the risk of escalating crisis.

CONCLUSION

Within this paper we illustrated our theoretical perspective and process for pursuing a two-part critical thinking framework and sensemaking protocol to address warfighters' cross-cultural competency needs for understanding culture, operationalizing knowledge, and performing human domain sensemaking. Building on literature from anthropology, social complexity, and practice theory we outlined an approach to Patterns of Life as a set of elements to aid holistic and critical thinking about the human domain as a complex system. Drawing from ethnographic methodology and grounded theory we proposed an Ethnographically-informed Sensemaking Protocol to enable reflexive, inductive, and iterative inquiry into the operational environment for humanitarian and stability operations. This work is still in progress, and the concepts herein are only a preliminary theory, but the Patterns of Life elements and Ethnographically-informed Sensemaking Protocol steps outlined here should serve to illustrate our approach and provide a useful signpost to how such a solution could be implemented into programs of instruction. Though we have not been able to provide complete attention to the full depth of all the theoretical fields consulted during our research, and many areas still necessitate further work, we hope this paper serves as a starting point to draw together research and recommendations for military training and protocol with previously neglected areas of theory.

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