Cultural Knowledge for Intelligence Analysts:

Expertise in Cultural Sensemaking

by Dr. Louise J. Rasmussen, Dr. Winston R. Sieck, and Dr. Robert R. Hoffman

Approaching a problem set like this requires a tremendous amount of what we call body of knowledge. What do we know about this organization? What do we know about its leaders? What do we know about its ideology? How do they express themselves? And this is where the language comes back in so importantly. To interpret that kind of information, that kind of data, and I will state this explicitly, is impossible to do in English. It cannot be done ... and that is a real problem when you start looking for vulnerabilities because we begin with the wrong context, we interpret the data incorrectly, there is too much interpretation that happens out of context.

National Air and Space Intelligence Center
 Behavioral Influence Analyst

SUMMARY

To be in a position to understand and anticipate the beliefs and actions of individuals from other cultures, analysts need insight into "what it is like to be them." There is a tremendous amount of cultural information that analysts might use to interpret the activities of members of foreign populations, and the specific information they need depends on the problem they are given. In this article the authors argue that strategies for engaging in cultural sensemaking allow analysts to discover what cultural information they need to understand particular problems and to acquire this knowledge on an ongoing basis. As such, cultural sensemaking strategies offer an alternative to the notion of providing analysts with an initial framework or prespecified items of knowledge that theoretically would allow them to parse and understand a culture. Instead, cultural sensemaking provides a foundation for analysts to build their own culturally-relevant mental models of another culture, and refine them over time. The authors outline a number of specific strategies for cultural sensemaking that they have uncovered in their studies of cross-cultural expertise and describe their application to intelligence analysis.

INTRODUCTION

nalysts must be able to think like the individuals in the populations they study-without bias or mirrorimaging (Hall and Citrenbaum, 2010). To do this, analysts need to effectively and accurately make sense of activity patterns and worldviews that may be culturally foreign to them. Understanding and predicting the activities and specific behaviors of cultural others requires knowledge about their culture. This presents a number of challenges, particularly for novice analysts who have had little time to build regional and cultural expertise. Cultural knowledge and language skills have indeed been identified as important competency requirements for intelligence analysts (Garst and Gross 1997; Moore and Krizan 2005). However, as the quote that opens this chapter illustrates, a major challenge is that there is an overwhelming amount of cultural information that an analyst might use to help him/her approach analysis problems. Another significant challenge is that the specific cultural knowledge the analyst needs depends on the analysis problem on which he/she is working. How can we ensure that analysts have the cultural information that is most useful to them?

The significance of these challenges becomes apparent if we look at the hypothetical experience of a young intelligence analyst, whom we will call John. John grew up in Cincinnati, Ohio. He has a bachelor's degree in sociology and a master's degree in international business. He has been outside the United States once to spend spring break in Cancun, Mexico. John took a couple of years of French in high school and dabbled in German because that is where his ancestors are from and he dreams of going there one day. It is John's first month on the job and his team receives the following problem set: identify the themes that will be used by Al Qaeda in an upcoming propaganda campaign. The principal analyst briefs the team on the methods and frameworks that will be used. He recommends dividing attention between characterizing the decision processes of the Al Qaeda organization as a whole and profiling a couple of individuals who have been identified as visionaries behind previous Al Qaeda campaigns.

John is instantly overwhelmed. He knows that in order to effectively contribute to this analysis he needs to understand group dynamics and decision-making in the Middle East, the political and religious beliefs and sentiments of Al Qaeda's intended targets, and the individual beliefs and motivations of the suspected thought leaders within the organization. Currently he knows next to nothing about the Middle East and he is not sure how to get up to speed.

This hypothetical case illustrates the job challenges cultural complexity presents to a new intelligence analyst. There is a tremendous amount of cultural information for potential consideration, and the information the analyst needs depends on the problem. To address this challenge, analysts need strategies for engaging in cultural sensemaking (Sieck, Smith, and Rasmussen 2008). This is partly a process of discovering the cultural information they need to understand particular problems. Cultural sensemaking strategies also aid in acquiring this knowledge on an ongoing basis to support analysis. Finally, having strategies for efficiently acquiring cultural knowledge may preclude "freezing up" on the part of analysts such as John because they feel they do not have the requisite amount of cultural knowledge.

In this article we will outline a number of cultural sensemaking strategies that we have uncovered in our studies of cultural sensemaking expertise.

CULTURAL SENSEMAKING

strategies by which people give meaning to experience (Duffy, 1995). It is particularly important in situations where there is a great deal of uncertainty and where meaning cannot be immediately comprehended. Sensemaking strategies have proven their value in a variety of work domains, such as organizational management (Weick, 1995), military planning and decision making (Klein, Moon, and Hoffman, 2006), and intelligence analysis (Moore, 2009; 2011), as well as domains that require intercultural interaction (Osland and Bird, 2000; Sieck, Smith, and Rasmussen, 2013).

Cultural sensemaking refers to the cognitive processes and strategies by which people come to understand and explain the activities and intentions of culturally different others (Osland and Bird, 2000; Sieck et al., 2013; Sieck, Grome, Smith, and Rababy, 2010). It rests on the idea that the ability to successfully understand another culture relies to some extent on the ability to explain why people do what they do in the same way as a cultural insider would. This idea is based on a theory that regards cultures as shared meaning systems. Within this view, individual members of a culture are able to make sense of events and situations within their

own culture because they share ideas—that is, they have a shared meaning system (Rohner, 1984; Kovecses, 2006; Sieck, 2010).

Members of a culture share expectations, or mental models, about how other members of the same culture will act in certain situations.

As a result, members of a culture share expectations, or mental models, about how other members of the same culture will act in certain situations (e.g., Campbell, 1949). Further, these mental models allow them to maintain consensus in how they explain each other's actions or decisions, and the greater the cultural homogeneity the stronger the consensus.

Because everyone belongs to at least one culture, this means that when people set out to make sense of the actions of others the perspective they start with is often based on expectations stemming from the normal situational behavior learned within their own dominant culture (Archer, 1986). In order to understand and anticipate the beliefs and actions of individuals from foreign cultures, people must build their own culturally-relevant mental models of the other culture (Sieck et al., 2010). They also need to learn to develop explanations of people's behavior and activity that are consistent with the cultural meaning system that is shared among members of the culture or population in question. Doing so enables them to make sense of events and situations from a cultural-insider point of view, allowing them to understand, predict, and solve problems within that cultural system.

As part of an ongoing program of research focusing on cross-cultural expertise, we have conducted numerous interviews with experienced intelligence analysts, collectors, and operators focusing on the thinking strategies that drive performance in challenging intercultural situations. The majority of our research involves field studies focusing on operators and analysts who have repeated and extensive experience either interacting with or reasoning about foreign populations. One study examined cultural expertise in the context of intelligence analysis specifically and another of collaborative sensemaking within multinational analysis teams (Sieck et al., 2004; Smith et al., 2009). Although the scientific objectives and methodologies vary slightly across these studies, in one way or another all studies address the knowledge and skill components of cross-cultural expertise. Altogether, 140 members of the military participated in these studies, representing the full spectrum of rank (from junior enlisted to 4-star general) and cultural exposure (ranging from none at all to spending decades overseas).

These empirical studies have revealed a set of sensemaking strategies that allow people to most effectively develop understanding of a different cultural meaning system. Experts having significant experience and credibility in domains that require reasoning about cultural complexity use certain strategies that make them more effective than individuals with less experience in making sense of cultural behaviors and situations. These strategies enable them to learn more effectively from their cultural problem-solving experiences (Osland and Bird, 2000; Sieck et al., 2013) and that can therefore boost the benefits of common overt learning activities such as reading, attending conferences, and traveling.

Because this research has also looked at cultural sensemaking in the context of ground operations, it has included contexts that require a great deal of face-to-face interaction with members of native populations (Rasmussen and Sieck, 2012). As a result, some of the antecedents of effective cultural sensemaking that have been identified pertain to strategies for developing interpersonal relationships. Such strategies are useful for human intelligence collectors and foreign area officers (Sieck, Grome, Smith, and Rababy, 2010), but perhaps less so for desk analysts such as John. However, several of the strategies for reasoning about and acquiring cultural knowledge are useful in the "desk job" situation as well. These strategies involve:

- Framing specific analysis problems as opportunities to learn about a new culture.
- Paying attention to cultural surprises and questioning one's interpretations of a behavior or situation.
- Using perspective taking as a strategy for generating hypotheses about the causes or reasons for a person's actions in a particular situation.
- Using knowledge about oneself and one's own culture as a basis for honing an "inside" perspective on a culture.
- Identifying and interacting with cultural mentors to find answers to questions and get access to a cultural insider's perspective.
- Thinking of cultural learning as a lifelong process.

In the following section we will discuss each of these strategies in more detail. We will focus on ways in which they can provide analysts a foundation for acquiring on-the-fly the cultural information they need to make sense of specific problem sets.

FRAMING ANALYSIS PROBLEMS AS CULTURALLEARNING OPPORTUNITIES

ultural sensemaking experts tend to expect that specific intercultural experiences and problems will provide some new insight or understanding that can be useful in the future, thinking of analytical problems as learning opportunities. They may even sometimes deliberately seek out unfamiliar experiences and problems specifically for the purpose of learning.

Thinking of specific analysis problems as being opportunities for learning something new about a culture is also a useful strategy in cultural sensemaking. It frees up analysts to think about and research aspects of the culture that may (or may not) at first be obviously relevant to a particular problem. In the end, analysts may achieve deeper understanding if they realize that not everything they learn about a culture may be used to inform a current analysis problem; it could instead inform sensemaking on a future problem.

PAYING ATTENTION TO CULTURAL SURPRISES AND QUESTIONING INTERPRETATIONS

nalysts may regard unexpected actions of a cultural other or the occurrence of contrasting interpretations (within an analysis team) as opportunities to increase their understanding of a culture. An activity, event or situation may be unexpected because the analyst recognizes that he/she is not used to seeing this in his/her own culture, or is used to seeing something rather different. Alternatively, it could be unexpected in the sense that it appears in conflict with knowledge the analyst already has about the other culture. Also, it could be the case that the analyst, either him/herself, or within his/her team, generates seemingly different interpretations. In all of these cases, the surprise presents an opportunity to ask questions and acquire more information.

The following example illustrates the latter kind of cultural surprise—a case of competing alternative interpretations (from Sieck, McHugh, Klein, Wei, and Klinger, 2004). A multinational analysis team, with an American (team leader), a Dutch, a Turk, a Greek, and a German officer worked together to identify the propaganda themes that the Croats, Bosniacs, and Serbs would use in upcoming campaigns. They had been studying the issue and background data for about nine weeks and the lead analyst was surprised to find at the end of that time that the team was not in agreement:

I thought the team was in agreement on the themes that would be used; but in fact they had two different interpretations and analyses. At one point, the Greek and the Turkish officers got frustrated with the conversations of the others and said, "you don't understand. Look: the problem is you're thinking secular, and they're not." They went on to provide their reasons why they believed Milosevich and the Serbs would switch from Stalinist communism to pursue a religious angle. The Dutch analyst, however, didn't believe that a Marxist could get away with taking that line. He said, 'Milosevich is a Stalinist, he'll never use religion. You know, Stalin is the very antithesis, a Stalinist is the very antithesis of a Christian. It won't work, no one will believe it, and he won't have credibility if he tries it. 'The Dutch analyst felt that the nationalist card alone would do it. I knew the Greek and Turk had been working together, the team leader reflected; I ended up listening to them because it struck me as very unusual that people from traditional enemy countries came to the same conclusion and worked together to get the wordto me. Also, they had a very good feel for the culture, much better than the rest of us. The rest of us had what I call, the distant political-analytical perspective, and they had a much closer, more personal, visceral perspective Milosevich made his first connection to religion in this conflict in May of 1992, only weeks after their prediction.

To effectively use a cultural surprise as an opportunity to deepen understanding, analysts may consider a scientific examination of its causes. Sieck et al. (2013) had expert and less experienced information operations specialists think out loud as they analyzed problem sets containing cultural elements. They found that, in the context of surprising or unexpected intercultural events, expert cultural sensemakers act very much like inquisitive scientists. When they encounter experimental evidence that is inconsistent with their original hypothesis, they change their goal to one of determining the cause of the unexpected behavior.

An example scenario in the study described a situation in which Serbian college students quit riding their school buses after the U.S. made security changes that were designed to increase protection for the students. In response to this scenario, experts generated significantly more hypotheses than the less experienced analysts about the possible causes for this change in daily activity. Further, the experts tended to ask questions that explicitly challenged fundamental assumptions underlying their conception of the other culture. For example, they would question whether the students themselves were making the decision to ride on the bus or whether

someone else could be making the decision for them. The less experienced analysts, on the other hand, were far less likely to ask questions that would allow them to develop a deeper understanding of the culture and the behavior. Instead they would focus on generating ideas for different actions that could increase the ridership. This finding does not mean that all domain experts are inquisitive, nor does it mean that individuals who lack experience are not. These findings merely indicate that inquiry strategies are more common among individuals who have greater levels of domain expertise offering insight into how they developed their expertise.

The notion that inquiry is an effective strategy for learning or developing expertise has been demonstrated repeatedly in research in the fields of education and educational psychology and the cognitive psychology of expertise (Ericsson, Charness, Feltovich, and Hoffman, 2006). The literature shows that students who ultimately end up developing the highest levels of competence are students who ask more questions. This is especially true for students who tend to ask questions that tap explanatory reasoning—the reasons or causes for why something happened (Graesser, Baggett, and Williams, 1996).

We have found that one way in which cultural sensemaking experts go about analyzing the possible reasons or causes for surprising or unexpected events or situations is to think about them from the perspective of someone from the other culture. This entails examining why the behavior was not unexpected in the other culture, a strategy called perspective taking that enables them to formulate and refine questions about reasons for behavior. In the following section we will describe how expert cultural sensemakers use this strategy to develop deeper understanding of another culture.

ADOPTING THENATIVE'S PERSPECTIVE

The cognitive activity of reasoning about the experience of others, their thoughts, feelings, perceptions, and intentions is often referred to in the scientific literature as perspective taking (Davis, 1983). Perspective taking has been demonstrated to play an important role within same-culture social situations; i.e., enhance interpersonal liking (Galinsky, Ku, and Wang, 2005), improve negotiations (Galinsky, Maddux, Gilin, and White, 2008), and aid in the comprehension of communication (Keysar, Barr, Balin, and Brauner, 2000).

Can a person really know what it is like to be someone else, especially someone from a different culture? This is a question that comes up often in the context of intelligence analysis. Can an analyst really "think like" a native?

Research has found evidence to indicate that people tend to believe that others think the same way they do themselves (see for example Nickerson, 1999; Ross and Ward, 1996). In the intelligence field, this challenge in interpreting the intentions and actions of others is referred to as the mirror imaging bias (Wittlin, 2008).

... perspective taking is an important strategy people use to make sense of people who are culturally different from themselves.

For example, we interviewed an analyst who was part of an intelligence group in the mid-1980s before the Soviet collapse, who recounted a first-hand experience with the mirror imaging bias. His group would, in parallel with a group in Washington, DC, support the Air Force in predicting what the Russians would be building for the coming twelve years. Analysts at the two different organizations would generate estimates for the same quantities and their estimates would be compared at the command level. The consensus between the groups was generally quite high. Nevertheless, the interviewee recalled one estimate that was way off, having to do with tankers.

The Russians had just finished a new facility for building tankers, and we were estimating the number of tankers that the Russians would build. Our group hypothesized that they would build less than a hundred, maybe 67 or so; the DC group hypothesized that the Russians would build hundreds of them. The commander asked us to explain why the two were so far off. We reasoned that the Russians have always had a smaller force than the U.S., they have insufficient resources to build many tankers, and they do not have the infrastructure to support that many tankers. We thought that the DC group was reasoning based on how the U.S. would do it. Putting the new facility in place, they would naturally build hundreds of tankers, because that's what the U.S. would do. We felt the DC group was relying on a mirror imaging assumption.

We have found that perspective taking is an important strategy people use to make sense of people who are culturally different from themselves (Rasmussen, Sieck, and Osland, 2010). Specifically, cultural sensemakers use perspective taking to reason about the causal relationships between concepts, beliefs, and values within another person's meaning system. The insight they gain into another's meaning system through perspective taking in turn allows them to formulate hypotheses concerning situation-dependent tendencies in reasoning

and judgment (Hoffman et al., 2011). To illustrate this, consider the way an Army Sergeant First Class takes the perspective of an Iraqi individual to reconcile how the person could hold values that appear to her to be in conflict. To this NCO, the Iraqi official appears to accept Western values on the one hand and maintain conservative Muslim values on the other.

For somebody who dressed in Western clothes and had a lot to do with the U.S. Army that was there, and government officials and things like that, it seemed to me to be almost a contradiction. You want to be Westernized for yourself but maybe not so much for your daughter. But, again, that's who he was so who am I to say whether that's right or wrong for him or for her? I mean I can have my own opinions but it is what it is ... One way to make sense of it all is if he was doing this liaising with the U.S. government, the military, and making relationships there because he saw that as the way to get ahead in Iraq, and the way to better his country, or maybe the way to get to the point where the Americans would leave. I mean it doesn't mean that he left his traditional beliefs behind... (Army SFC)

When used effectively, perspective taking can assist an analyst in developing mental models of a cultural other's experience. Through the activity of reasoning about the relationships between the beliefs and motivations of specific individuals and of cultural groups, expert cultural sensemakers are able to develop understanding of a culturally different meaning system. In this way, perspective taking offers a way for analysts to develop what cultural anthropologists call "emic" analysis or understanding of a culture from the "inside" (Geertz, 1974; Sieck, 2011).

The counterpart to the emic perspective on a culture is the "etic" perspective. Etic descriptions of a culture rely on scientific constructs or concepts that can be theoretically applied across cultures in a "culturally-neutral" or "objective" fashion. Geertz (1974, p. 24) offered the concepts of "object cathexis" and "love" as examples of etic and emic cultural knowledge respectively. As such etic knowledge provides an "outsider's" view of a culture. For this reason, etic concepts do not straightforwardly enable emic analysis or "understanding a culture from the inside."

Malinowski's famous characterization of the Argonauts of the Western Pacific (1922) clearly illustrates the leap that would have to be made to infer the beliefs and values of specific members of the culture from a scientist's characterization of cultural behavior:

Yet it must be remembered that what appears to us an extensive, complicated, and yet well-ordered

institution is the outcome of so many doings and pursuits, carried on by savages, who have no laws or aims or charters definitely laid down. They have no knowledge of the total outline of any of their social structure. They know their own motives, know the purpose of individual actions and the rules which apply to them, but how, out of these, the whole collective institution shapes, this is beyond their mental range. (pp. 83-84)

The extent to which there is such a thing as a truly "objective" understanding of another culture is a debatable point. Regardless, in the context of intelligence analysis the emic mental models that may be developed as a result of taking another's perspective provide at least some direct insight into the beliefs and motivations and therefore the experience of cultural others. Further, such emic understanding can also more readily be used as a basis for further inquiry. In the context of seeking to understand or make sense of another culture, perspective taking allows the individual to formulate hypotheses about the thoughts and motivations of cultural others and to identify information they need in order to improve their understanding.

Some might argue that in order to take someone else's perspective "accurately," to avoid the mirror-imaging bias, one needs to have a great deal of knowledge about the other person as well as their cultures or sub-cultures. In the following section we will describe how cultural sensemaking experts use perspective taking effectively even when they lack culture-specific knowledge.

KNOWING YOURSELF AND HOW YOU'RE DIFFERENT

The more knowledge a perspective taker has about the person whose perspective he/she is trying to take, or about his/her culture, the better positioned the perspective taker is to "accurately" take the perspective of the cultural other. This line of reasoning is valid if intercultural perspective taking is thought of as a "one-shot" way to achieve insider understanding of a cultural other. Social-cognitive research has found that the more one knows about the other, the better one is able to make inferences about what they know, and better able to predict their behavior (Nickerson, 1999; Krauss, and Fussell, 1999; Ames, 2004).

However, we have found that when perspective taking is used within the cultural sensemaking process there is not necessarily a strong requirement for having in-depth knowledge of someone else in order for inferences and predictions to *become* valid. Mainly, when perspective taking is used as part of an iterative process, through which a cultural sensemaker generates hypotheses and refines their

understanding of a behavior or situation, it can serve a productive purpose even when the sensemaker might have little to no knowledge about the other, personally, or about their culture.

In starting with self-knowledge to form an initial hypothesis, the expert analyst uses knowledge of the concepts and worldviews that are important in his/her own culture as a starting point for interpreting another culture.

We have found that when expert cultural sensemakers lack knowledge about the beliefs and values of cultural others they use knowledge about themselves, and knowledge about ways in which Americans are different from other cultures as a starting point for sensemaking. It may seem counter-intuitive to assert that this is a good strategy, especially in response to the argument that mirroring is a bias. However, in starting with self-knowledge to form an initial hypothesis, the expert analyst uses knowledge of the concepts and worldviews that are important in his/her own culture as a starting point for interpreting another culture. In one of our research studies, a U.S. Air Force captain recounted how he had noticed that Afghans behaved in a way that made it seem to him like they did not care about acting "heroically." This puzzled him. He used his own perspective on what it means to be a hero and act heroically as the starting for making sense of how Afghans think about what it means to be a "hero."

We have this expectation of this warrior culture, and we have that painted image in our mind... We say are you wearing a suit? Do you go get dressed in the booth to come out that super hero warrior? Afghans don't think of it that way. The Afghan fables all describe the Afghan as being successful by outsmarting the enemy by playing dumb... (Air Force captain)

In this example, understanding the American concept of heroism allowed the captain to recognize that Afghans were not behaving consistently with that concept. This tracks with research showing that self-awareness, or knowledge about the self, can allow perspective takers to identify areas of possible differences between themselves and others. The more aware people are of the beliefs and values that are unique to them, the better they are at identifying the beliefs and values that are unique to others (Decety and Sommerville, 2003).

These findings suggest that analysts could benefit from having a solid general understanding of their own culture and how it influences their interpretation of behavior. Doing so would support cultural sensemaking by providing a basis for analysts to identify cultural differences—and, therefore, for recognizing when they should be surprised. If people are acting in a way that does not seem to correspond with the normal patterns that an analyst is used to seeing in his/her own culture, that is a cue to seek more information to understand the reasons for that behavior.

IDENTIFYING AND USING CULTURAL MENTORS

nowing oneself and using that as a basis for asking questions about another culture is just the starting point, however. One must also know where to look and whom to ask for information to help build understanding of a culture or a cultural issue. A way for analysts to increase their cultural knowledge and to vet their use of already acquired knowledge to make sense of cultural others' perspectives is to identify and use cultural mentors. Analysts may find expatriates (or academics) in their local communities or on their analysis teams.

We have found that expert cultural sensemakers are very creative in where they get their information, and in how they interact with potential information sources to get the information they need. For example, the American analysis team leader mentioned above recounted having interesting discussions with members of his multinational analysis team in order to familiarize himself with Serbian culture from the perspective of someone who has inside knowledge about the culture.

The Turk would tell me about how the Serbs have always seen themselves as the defenders of the gate. That's how history was taught in their history books. And then the Greek went on to explain how many Serbs considered the Bosnians traitors because they used to be Christians and converted to Islam. He said, "and many Serbs consider the Bosnians to be descendants of Turkish soldiers. "In fact, many Turks married locally, and many Turks married Greeks because they were admirers of the Greek culture and the Serbs were seen as an extension of the Greek culture because of their alliance with the Byzantium. The bottom line was, the Turk said, "Greece and Serbia have been allies since Byzantine times against Turks and Muslims." The implication was that if my team made a recommendation that would lead NATO to choose sides, then NATO would put their two countries at each other's throats.

In situations where locating cultural insiders or natives is a challenge, we have found that cultural sensemaking experts can be very creative in identifying other sources of information that can assist in constructing an inside view about a culture. A Marine Corps intelligence collector we interviewed accounted this strategy for obtaining information to allow him to develop background understanding of a culture.

One of the things that helped us was understanding that Somali culture focused on the family first, and then the clan, and then the tribe. Understanding that was the center of gravity of Somali culture before we went over there. And we did not get that from the military; we got that from the universities, but that what was key and important to us. But it was only because we exercised some flexibility ingoing outside traditional channels to get that information, i.e., going to the universities. UC-Berkeley, when they found out we were military, refused to communicate with us; they would not help us because they just disagreed with us going there. The University of San Diego was very cooperative. (Marine Corps lieutenant colonel)

Interacting with cultural mentors and asking them culture-related questions is an important part of cultural sensemaking. It helps provide a context for interpreting events, actions, and situations. In this context it should be noted, though, that culture is of course in many ways subjective. This means that any one individual or source's account is likely to be biased. We have found that cultural sensemaking experts are typically aware of this, and will critically evaluate information provided to them either by native mentors or by other sources. They might look for a second opinion, or at times go online after a discussion to specifically check facts they have been provided related to a culture. This would serve both as a check on the validity of the information itself and allow assessment of the general reliability of their source.

THINKING OF CULTURAL LEARNING AS A LIFELONG PROCESS

ultural sensemaking experts use efficient learning strategies to build deep knowledge about a variety of specific regions and cultures in the world. However, we have found that no matter how knowledgeable these experts are, they proceed as if there is always more to know. Interestingly, this is also true of experts in a somewhat similar profession, i.e., expert UN language interpreters (Hoffman, 1997).

In the context of intelligence analysis, a similar orientation to cultural knowledge can form a productive basis for ongoing cultural learning. No matter how much an analyst thinks he/she knows about a culture, he/she will benefit from realizing that there is more to know. Without this realization, analysts may feel compelled to explain away cultural surprises and forget to question their interpretations.

DISCUSSION

In this chapter we have described a number of cultural sensemaking strategies that analysts may use to support the ongoing acquisition of cultural knowledge. Currently, many efforts to cultivate cultural knowledge and skills in the military use an "etic" approach (see, for example, Salmoni and Holmes-Eber, 2009). However, emic as well as etic cultural knowledge play important roles in analysis. Some problems require understanding and anticipation of the actions of groups and organizations. Furthermore, as our novice analyst John's experience at the beginning of the chapter illustrated, at times analysis problems require characterization of behavior both at the individual and the group level.

If analysts have the expectation that they will acquire cultural knowledge on the job, and if they have effective strategies for doing so, they will be more ready to tackle problems that require them to think about culture at multiple levels of abstraction. Cultural sensemaking strategies offer an alternative to the notion of providing analysts with an

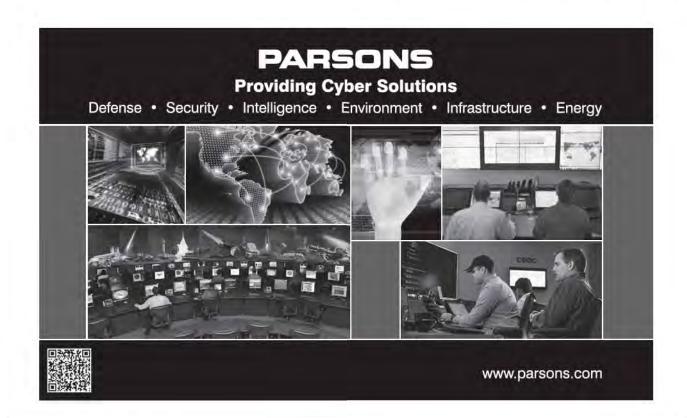
initial framework or pre-specified items of knowledge that ideally would allow them to parse and understand a culture. Instead, cultural sensemaking provides a foundation for analysts to build their own mental models of the other culture, over time (Sieck et al., 2010).

Provided early in an analyst's career, targeted cultural sensemaking instruction offers the promise of not only providing strategies for how to think about culture, but at the same time accelerating the development of expertise (Hoffman, et al., in press). Domain-embedded thinking and learning skills training offer a possible approach for promoting cultural sensemaking skills in analysts. Previous studies have found that scenario-based approaches for teaching advanced thinking skills result in positive, subjective learner evaluations (Pliske, McCloskey, and Klein, 2001). The next step in our research program is to use the research outlined in the current chapter to design objective measures of cultural sensemaking ability. Such measures can allow us to examine the effects of explicit cultural sensemaking instruction and to determine the relative usefulness of alternative instructional methods.

References

Ames, D. (2004). Inside the mind reader's tool kit: Projection and stereotyping in mental state inference. *Journal of Personality and Social Psychology, 87*(3), 340-353.

Archer, C.M. (1986). Culture bump and beyond. In J.M. Valdes (Ed.), *Culture bound: Bridging the cultural gap*



- *in language teaching* (pp. 170-178). Cambridge, UK: Cambridge University Press.
- Campbell, J. (1949). *The hero with a thousand faces*. Princeton University Press.
- Davis, M.H. (1983). Measuring individual differences in empathy: Evidence for a multidimensional approach. Journal of Personality and Social Psychology, 44, 113-126.
- Decety, J., & Sommerville, J. (2003). Shared representations between self and other: a social cognitive neuroscience view. TRENDS in Cognitive Sciences, 7(12), 527-533.
- Duffy, M. (1995). Sensemaking in Classroom Conversations. In I. Maso, P. A. Atkinson, S. Delamont, J.C. Verhoeven (Eds.), Openness in Research: The Tension between Self and Other, 119-132. Assen, The Netherlands: Van Gorcum.
- Ericsson, K.A., Charness, N., Feltovich, P.J. and Hoffman, R.R., (Eds.) (2006). *Cambridge handbook of expertise and expert performance*. New York: Cambridge University Press.
- Galinsky, A., Ku, G., & Wang, C. (2005). Perspective-taking and self-other overlap: Fostering social bonds and facilitating social coordination. Group Processes and Intergroup Relations, 8(2), 109-124.
- Galinsky, A., Maddux, W., Gilin, D., & White, J. (2008). Why it pays to get inside the head of your opponent: Differential effects of perspective taking and empathy in negotiations. *Psychological Science*, 19, 378-384.
- Garst, R.D., & Gross, M.L., 1997. On becoming an intelligence analyst. *Defense Intelligence Journal*, 6, 47-59
- Geertz, C. (1974). From the Native's Point of View: On the Nature of Anthropological Understanding. Bulletin of the American Academy of Arts and Sciences, 28(1), 26-45.
- Graesser, A.C., Baggett, W., & Williams, K. (1996). Questiondriven explanatory reasoning. Applied Cognitive Psychology, 10, S17-S32.
- Hall, W.M., & Citrenbaum, G. (2010). Intelligence Analysis: How to think in complex environments. ABC-CLIO, Santa Barbara, CA.
- Hoffman, R.R. (1997). The cognitive psychology of expertise and the domain of interpreting. *Interpreting: The International Journal of Research and Practice in Interpreting*, 2, 198-230.
- Hoffman, R.R., Henderson, S., Moon, B., Moore, D.T., & Litman, J.A. (2011). Reasoning difficulty in analytical activity. *Theoretical Issues in Ergonomics Science*, 12, 225-240.
- Hoffman, R.R., Ward, P., DiBello, L., Feltovich, P.J., Fiore, S.M., and Andrews, D. (2013). Accelerated Expertise: Training for High Proficiency in a Complex World. Boca Raton, FL: Taylor and Francis/CRC Press.
- Keysar, B., Barr, D.J., Balin, J.A., & Brauner, J.S. (2000). Taking perspective in conversation: The role of mutual

- knowledge in comprehension. *Psychological Science*, 11, 32–38.
- Klein, G., Moon, B. & Hoffman, R.R. (2006). Making sense of sensemaking II: A macrocognitive model. *IEEE Intelligent Systems*, 21, 88-92.
- Kovecses, Z. (2006). *Metaphor in Culture: Universality and Variation*. Cambridge, UK: Cambridge University Press.
- Krauss, R.M., & Fussell, S.R. (1991). Perspective-taking in communication: Representations of others' knowledge in reference. *Social Cognition*, *9*, 2-24.
- Malinowski, B. (1922). Argonauts of the Western Pacific: An account of native enterprise and adventure in the Archipelagoes of Melanesian New Guinea. London: Routledge and Kegan Paul.
- Moore, D.T., & Krizan, L. (2005). Core competencies for intelligence analysis at the National Security Agency. In R.G. Swenson, ed. Bringing intelligence about: practitioners reflect on best practices. Washington, DC: National Defense Intelligence College, 95-132.
- Moore, D.T. (2009). *Critical Thinking and Intelligence Analysis*, Occasional Paper Number Fourteen, Revised.
 Washington, DC: National Defense Intelligence College.
- Moore, D.T. (2012). Sensemaking: A structure for an intelligence revolution, 2nd edition. Washington, DC: National Intelligence University.
- Nickerson, R.S. (1999). How we know—and sometimes misjudge—what others know: Imputing one's own knowledge to others. *Psychological Bulletin*, 125, 737-759.
- Osland, J.S., & Bird, A. (2000). Beyond sophisticated stereotyping: Cultural sensemaking in context. *Academy of Management Executive*, 14, 65-79.
- Pliske, R., McCloskey, M., & Klein, G. (2001). Decision skills training: Facilitating learning from experience. In Salas, Eduardo (Ed.), and Klein, Gary (Ed.), Linking expertise and naturalistic decision making. Mahwah, NJ: Lawrence Erlbaum Associates Publishers, pp. 37-53.
- Rasmussen, L.J., Sieck, W.R., & Osland, J. (2010). Using cultural models of decision making to assess and develop cultural sensemaking competence. In D. Schmorrow and D. Nicholson (Eds.), Advances in Cross-Cultural Decision Making. Boca Raton, FL: CRC Press/Taylor and Francis. Ltd.
- Rasmussen, L.J., & Sieck, W.R. (2012, March-April).

 Strategies for developing and practicing cross-cultural expertise in the military. *Military Review*, pp. 71-80.
- Roan, L., Strong, B., Foss, P., Yager, M., Gehlbach, H., & Metcalf, K. (2009). "Social perspective taking in the contemporary operating environment." Final Report on ContractNo. W91WAW-07-P-0286, Adelphi, MD: Army Research Institute.
- Rohner, R.P. (1984). Toward a conception of culture for cross-cultural psychology. *Journal of Cross-Cultural Psychology*, 15, 111-138.

Ross, L., and Ward, A. (1996). Naive realism in every day life: Implications for social conflict and misunderstanding. In T. Brown, E. Reed, and E. Turiel (Eds.), *Values and knowledge* (pp. 103-135). Hillsdale, NJ: Erlbaum.

Salmoni, B., & Holmes,-Eber. (2009). Operational Culture for the Warfighter: Principles and Applications. Washington, DC: Government Printing Office.

Sieck, W.R. (2010). Cultural network analysis: Method and application. In D. Schmorrow and D. Nicholson (Eds.), Advances in Cross-Cultural Decision Making (pp. 260-269). Boca Raton, FL: CRC Press/ Taylor and Francis, Ltd.

Sieck, W.R. (2011). A cultural models approach for investigating the cognitive basis of terrorism.

Journal of Terrorism Research, 2(1), 3-15.

Sieck, W.R., Grome, A.P., Smith, J., & Rababy, D.A. (2010). Expert cultural sensemaking in the management of Middle Eastern crowds. In K.L. Mosier and U.M. Fischer (Eds.), *Informed by Knowledge: Expert* Performance in Complex Situations (pp. 103-119). New York, NY: Taylor and Francis.

Sieck, W.R., Smith, J.L., & Rasmussen, L.J. (2013). Metacognitive Strategies for Making Sense of Cross-Cultural Encounters. *Journal of Cross-Cultural Psychology*, 44(6), 1007-1023.

Sieck, W.R., McHugh, A.P., Klein, G., Wei, S., & Klinger, D.W. (2004). Uncertainty management for teams: The strategy of developing shared understanding in the face of uncertainty. Technical Report on Contract#N00014-04-M-0148. Office of Naval Research, Arlington, VA.

Weick, K. (1995). Sensemaking in Organisations. London: Sage.

Witlin, L. (2008). Of Note: Mirror-Imaging and Its Dangers. SAIS Review 28, 89-90.

Dr. Louise J. Rasmussen is a Senior Scientist at Global Cognition, a cognitive research and training development organization in Yellow Springs, OH. Her research explores how people think, learn, decide, and plan in complex, realworld contexts. Over the past few years she has conducted several studies aimed at characterizing effective cognition and performance in intercultural situations to inform cultural training and education. In addition to several book chapters, she has published articles in journals such as Military Review and Cognitive Engineering and Decision Making. She received her PhD in Human Factors Psychology from Wright State University.

Dr. Winston R. Sieck is President and Principal Scientist of Global Cognition. He investigates the strategies people use to learn, reason, think critically, and make decisions, including how these strategies differ across cultures and levels of expertise. He identifies cognitive skills and strategies that yield high performance in a variety of contexts, devises methods to assess them, and develops and tests e-learning programs to impart the strategies. A central issue in this work is determining ways to teach general cognitive skills in a manner so that learners apply them in new situations. Dr. Sieck has published extensively on these issues in a variety of scientific outlets, and has served as principal investigator on projects funded by several government agencies to study these and related issues. He received his PhD in cognitive psychology and an MA in statistics from the University of Michigan.

Dr. Robert R. Hoffman is a Senior Research Scientist at the Florida Institute for Human and Machine Cognition. He is a Fellow of the American Psychological Society, a Fulbright Scholar, and an Honorary Fellow of the British Library (Eccles Center for American Studies). He is widely regarded as one of the pioneers of the field of "expertise studies." He has conducted extensive research on the knowledge and reasoning skills of expert remote sensing scientists, weather forecasters, and utilities engineers. Dr. Hoffman has been recognized internationally for his fundamental contributions to the field of human-centered computing, pioneering research on the psychology of expertise, contributions to the methodology of knowledge elicitation, and research on human factors issues in the design of workstation systems and knowledge-based systems.



Interested in publishing an article in the

American Intelligence Journal?



Submit a manuscript for consideration

to the Editor <aijeditor@nmia.org>