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"Social sensemaking in multinational groups: a common ground approach"

Multinational Endeavors; Cognitive and Social Issues; Organizational Issues.

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Abstract

Research efforts to investigate culture in military command and control, or indeed in any form of headquarters, are of crucial importance now that both peacekeeping and warfighting are carried out on a multinational basis. One aspect of working in a coalition headquarters is doing collaborative planning, where the group needs to understand what they as a group have been told to do (i.e., the commander's intent) and what their part in the task is. This requires understanding the meaning of the task, and forming enough common ground to be able to coordinate group efforts. Meaning cannot be understood independently from communication, and is also reliant on coordination between both parties. We propose a theory of social sensemaking; that behaviours to create common ground are based on sensemaking strategies, and that specific strategies are used to uncover the knowledge necessary for finding sufficient and necessary common ground.

Keywords: sensemaking, common ground, culture, cultural differences, mental models, social sensemaking

Introduction

In this paper we will examine the mechanisms behind successful communication in multicultural and other settings. More specifically, we will explore the ability of existing theories of sensemaking to illuminate the challenges faced by operators in multinational environments (Klein, Moon, and Hoffman, 2006). We also intend to investigate whether we can use this theory to develop specific strategies that may be possible to teach others in order to achieve more efficient communication and collaboration.

Research efforts to investigate culture in military command and control, or indeed in any form of headquarters, are of crucial importance now that both peacekeeping and warfighting are carried out on a multinational basis.

One of the aspects of working in a headquarters is doing collaborative planning, where the group needs to move in the same direction; there is a need to understand what they as a group have been told to do (i.e., the commander's intent) and what their part in the task is. Coordination and communication are helped by having a common outlook, shared experiences and similar knowledge (e.g. of military processes). Similar experiences and knowledge comes fairly naturally when all involved are from the same service in the same country, but when working with other services or nationalities, this can cause difficulties. Briefings from various military personnel on the DCMT (Defence Academy of Management and Technology, Shrivenham, UK) campus reveal several accounts of military personnel stating that coalition work takes a lot longer than single service work. The reasons for this include the political implications of decisions and the need to 'double check' with one's own country, differences in language proficiency. It also takes longer because of the need to make sure all relevant parties understand what is going on, which

can be difficult due to different training and inherent difficulties in accurately interpreting commander's intent.

Most theories of culture (e.g. Hofstede 1996) that classify cultures on a national scale, Hofstede for example judging them on dimensions such as uncertainty avoidance and power distance. These national culture traits are however not possible to scale down onto individuals: According to Salk and Brannen (1997), individuals do not necessarily exhibit population tendencies, and their data suggests that cultural differences themselves do not cause problems. Salk and Brennan are working with a conception of culture that focuses on national differences. Other conceptions of culture, such as the epidemiological view (for reviews, see Atran, Medin, and Ross 2005 and Sperber 1996) instead regard culture as knowledge that is shared within a group or population of individuals.

A common approach to cultural training is to provide trainees with an understanding of the differences between their own and a target culture along national dimensions. This approach provides the trainee with an understanding of general aspects of another culture, which provides a useful basic level of cultural preparedness. However, providing information about differences does not effectively help trainees make the kinds of inferences they need to make in order to decide how they should act, react, and communicate in the specific situations they will find themselves in.

In line with the epidemiological view on culture, we suggest that different cultures have different tacit knowledge, and that the challenge facing multinational teams is that of understanding each other's intended meaning. Current research suggesting that cultural differences exist between certain coalition partners' mental models of key coalition tasks provide support for this hypothesis (Rasmussen, Sieck, and Smart, 2008). Despite the difficulties, the military and other multinational groups are resourceful and can achieve their objectives as a result of past experience and communication. The model proposed in this paper shows the process of communicating in order to achieve collaborative goals in multicultural groups, and connects Clark's (1996) common ground model with the data/frame theory of sensemaking (Klein, Phillips & Peluso, 2006).

Theory

The concept of intent is introduced, followed by frictions and ways to alleviate them in multinational groups or headquarters. Common ground and the data/frame theory of sensemaking are also explained. Finally, a model of social sensemaking is proposed.

Intent

When communicating with other people and receiving orders from others, problems or frictions in collaborative activities can be caused by not understanding what the sender actually *means*. That meaning is known to the British military as *commander's intent*; the idea behind the order that the sub commanders should act upon for determining what they ought to do. Having commander's intent allows sub commanders a level of freedom in understanding the purpose of the order, and to exert their own judgement when necessary. (Army Doctrine Publication, 2005)

Commander's intent is decomposed by Pigeau and McCann (2000) into two elements, *explicit intent* and *implicit intent*. The written statement in the order under the heading "commander intent" is the *explicit intent*. Implicit intent is the interpretation of explicit intent, which is understood as a result of training, tradition, cultural values and personal expectations. If culture is viewed as a collection of tacit knowledge and learnt thought patterns, implicit intent can be seen to rely on culture and is a highly tacit concept. The notion that implicit intent is highly tacit and culturally dependant has been supported in interviews with military personnel at the Joint Services Command and Staff College (JSCSC), the Development, Concepts and Doctrine Centre (DCDC) as well as the Command and Staff Trainer in Warminster (CAST(S)). Since implicit intent appears to rely on culture and training, according to military subject matter experts (cited above), intent needs to be made explicit when dealing with several cultures. The assessment of whether a receiver (or headquarters) has correctly understood the intent from the sender (the commander above, or the order itself), can easily be confounded by the relative "quality" of the plan made by sub-commanders[1]. Therefore, it is important to investigate how a headquarters or other multinational group interprets the implicit intent from the explicit intent. It is important to look at this process, rather than just at the end product.

Frictions in multinational groups

Cremin et al. (2003) provide advice for commanders of multinational forces, having undertaken research to identify potential sources of frictions in the command of multinational forces. Advice considered important includes the establishment of a common sense of purpose and awareness of how their culture is seen by others. Cremin et al. also suggest that the commander needs to be able to adapt their command style, and to prioritise relationship building and to undertake a leadership style that is by discussion and not dictated. Due to the diverse levels of English language competency in multinational teams, they also mention the need for shared understanding, which they emphasise is not the same thing as shared information.

According to Salas et al. (2001), an effect of a command and control team being multi-cultural is degraded communication, making it more difficult to manage meanings, beliefs and attitudes, and it also has an influence on process management. Salas et al. deduce that the keys in heterogeneous sub-teams to achieve better task performance are, amongst others, closed-loop communication and clear communication as well as pre-planning in order to build shared mental models.

Rubenstein (2003) also makes suggestions on how cultural difficulties should be handled. These include being aware of meaning, avoiding attributing motive, making cultural expectations explicit, clarifying objectives and being aware of power distances. Researchers (Bowman and Pierce 2003, Cremin et al 2003) also mention advantages of knowing about the different cultures one is to work with, in order to achieve understanding and facilitating work. As previously mentioned though, this is not always possible to achieve.

[1] Personal communication, Lt Col (Ret) Jim Storr, 2007

As can be seen from the above, recommendations on how to behave in multicultural environments include achieving shared understanding, not attributing motive, being aware of power distances, seeking closed-loop communication and building shared mental models. Recommendations on how to behave are in several cases (Salas et al 2001, Rubenstein 2003 and Cremin et al 2003) based on how well-functioning multicultural groups act, but all are general ideas that do not explain how this "shared understanding" is achieved.

Common ground

The process of understanding each other, and coordinating efforts, is achieved by communicating; by sharing information, tacit knowledge and all other parts that make up common ground (Clark, 1996). Common ground is the sum of two, or more, people's common or joint knowledge and beliefs, and it forms the basis of communication. To create common ground, the process of *grounding* is in play, it is the process in which one establishes a thing as a part of common ground well enough for current purposes. In Clark's view communication rests on synchronization. He views communication as a joint activity, where speakers and listeners, two communicators, perform their individual actions in coordination as ensembles. In this ensemble, like two people playing a duet, the two together are more than the sum of the individual parts. This also means they are dependant on each other, one cannot perform the act of communication without the other.

Communicating with other people and receiving orders from others is difficult however: There is a need to decipher what the message actually *means*. Clark explains that the term "meaning" can be divided into two parts in many languages. In English, this task is not easy, and so Clark uses the terms "speaker's meaning" (German: *Gemeintes*, French: *intention*) and "signal meaning" (German: *Beteutung*, French: *signification*). Signal meaning is a signal (gesture, phrase etc) that is not necessarily conventional, but rests on the common ground of those involved. It therefore requires a speaker to convey that meaning, for example looking at one's watch to remind someone of an appointment.

Clark provides an example of "speaker's meaning" (pp 126-127, Clark 1996):

"*By pointing at her mouth and an empty plate, Elizabeth meant that she was in need of food at that moment*."

The example provided for "signal meaning", for that same occurrence, was:

"*Elizabeth's gesture at her mouth and empty plate meant that she was in need of food at that moment*."

So, signal meaning is something that can be found through observation and one may understand someone else's signal meaning once the gesture has been decoded, it is the action and the interpretation of that action. Speaker's meaning, on the other hand, is intrinsically tied to the person performing the communicative gesture, it is the intended meaning of the action. Therefore, signal meaning is interpreted, but speaker's meaning is truly known only to the speaker. Meaning is not something that can be understood independently of its context; it is part of a communication act and therefore reliant on

coordination. In order to achieve this coordination, members of a headquarters not only talk and point to convey meaning, but also use cognitive artefacts such as orders, messaging systems, procedures, maps, telephones etc. Cognitive artefacts, according to Donald Norman (1993), are tools of thought. These tools of thought both complement abilities and strengthen mental powers. Some of the artefacts mentioned above have affordances more suited than others for grounding and at helping to convey meaning, including perhaps more or less suited to certain cultures.

These artefacts influence behaviour patterns and actions patterns, and thereby they can have an influence on the grounding process. There might also be specific personal communication strategies, artefacts in another way, that are more or less suited to the grounding process, and making some people more successful at grounding and working with new people than others are.

Sensemaking

Sensemaking is, to Klein, Phillips & Peluso (2006), the deliberate effort to understand things; it is the process of constructing the data as well as the meaning (frame) of that data. In the data/frame theory of sensemaking, Klein et al. describe how people use only a fragment of the available information to explore the world. The data helps a person to identify the correct frame, and in turn the frame determines what data is noticed. This is similar to Neisser's (1976) theory of the perceptual cycle, since neither frame nor data precede the other. Sensemaking also is the *active* [our italics] exploration of the world, which is triggered by a surprise or a perceived inadequacy in the existing frame or the existing perception of relevant data. Klein et al. suggest eight aspects of sensemaking (in no specific order or combination):

- The initial account people generate to explain events,
- The elaboration of that account,
- The questioning of that account in the face of inconsistent data,
- Fixation on the initial account,
- Discovering inadequacies in the initial account,
- Comparison of alternative accounts,
- Re-framing the initial account and replacing it with another, and
- The deliberate construction of an account when none is automatically recognised

Either of these aspects can be the starting point of sensemaking, and sensemaking activities may include some, but not all, of these aspects. The functions of sensemaking are problem detection, connecting the dots, forming expectations, anticipatory thinking, projecting future states, finding the levers, seeing relationships and problem identification. The data/frame theory of sensemaking suggests that "good" sensemakers

are ones who constantly form new hypotheses (or frames) about the world, and put them to the test. They also mention that the data/frame theory implies the need to commit sufficiently to a frame early on in order to be able to effectively test it to learn from its inadequacies. Klein, Phillips & Peluso also report that their evidence shows that novice and expert sensemakers use approximately the same reasoning and sensemaking strategies, but expert sensemakers have richer mental models, which in turn makes them better at the process of sensemaking. Therefore, they conclude there is little to be gained by teaching novices to use the same strategies as experts, rather, training should focus on providing novices with richer mental models, which can only be gained through deliberate practice and experience.

Social sensemaking

As is apparent from the above paragraphs on frictions in multinational groups, working well together has a lot to do with coordination, understanding and reaching a joint sense of purpose. As previously stated, it is not possible to teach someone about all other cultures in the world, it would probably be better instead to teach them how to get along with new people and gain that knowledge for themselves.

Osland and Bird (2000) have suggested a theory of cultural sensemaking in which one tries to comprehend cultural paradoxes or an event or behaviour in another culture. Their cultural sensemaking is a model for deciphering cultural paradoxes, useful for example when one has moved to a different country and is struggling to understand the new culture. Osland and Bird's cultural sensemaking describes the process from noticing cues to drawing inferences and then enacting behavioural scripts (or frames). The social sensemaking from a common ground approach suggested in our paper has a different view of how people of different cultures act. Social sensemaking from a common ground approach rests on the assumption that we perform a joint action with people we are trying to collaborate with, and describes the process of how we get to know someone sufficiently to be able to collaborate with them.

The difference between grounding and sensemaking is that grounding is the process of creating joint understanding, and understanding each other, also of jointly creating sense of something. Sensemaking on the other hand is a theory of cognition, of how people individually organise knowledge and understanding, and determine their own understanding of things. The model of social sensemaking in a multicultural setting proposes that sensemaking strategies are the foundation behind grounding strategies to create common ground. Sensemaking strategies involve questioning a frame, looking for new data, forming hypotheses etc. In a social setting, information may present itself without active exploration, but the model of social sensemaking means that in order to be truly successful at communicating, one must use grounding strategies to elicit more relevant information based on sensemaking principles, and then incorporate this through sensemaking into the common ground.

We propose that sensemaking is the mechanism behind grounding behaviours; i.e. forming, fixating on, and testing new hypotheses, and adding information to common

ground. Our hypothesis is that when people from different cultures interact, they use grounding strategies to make sense of each other and to develop more similar mental models of their interaction.

Future work

Sales strategies can be taught, and on a less rigid level so are strategies for use on group dynamics and management. In group dynamics and management rigid phrases and scenarios are perhaps not taught the same way as for salesmen, but that does not mean it is impossible. Perhaps it is possible to teach grounding strategies, even though according to Klein, Phillips & Peluso (2006) the sensemaking strategies are the same for novices and experts. Through looking at grounding from a sensemaking perspective, it may be possible to teach someone specific strategies to deal with working with other cultures, other than the general ideas of keeping an open mind and not assuming one's own way is the only way.

We all know people better at enabling and getting along with, and working with, new individuals. It may be the case that they have grounding strategies that are more useful for their sensemaking, and that these grounding strategies or the way they are being used are more efficient than how others use their strategies. In grounding, when we learn a new fact about someone (or deduce something from learning that they are Swedish, for example), we incorporate this into the common ground we already have. Sometimes what we assume or deduce is just prejudice about a particular culture other than our own If we instead actively seek to know what the person stands for, make sure we get the information and give the information we need to get and give, we may be better at grounding and sensemaking in the social sphere.

Conclusions

In this paper we have proposed a theory of social sensemaking, the mechanisms behind successful communication. We intend to examine the validity of this theory, and if there are any specific strategies that may be possible to teach others in order to achieve more efficient communication.

If grounding takes place primarily in a conversation or joint action and sensemaking is the primary mechanism for developing a common ground, there may be specific strategies used in a social settings as well. Providing it is possible to find these strategies, one could suggest that since it is not viable to teach cultural differences in all circumstances, one could instead teach grounding strategies in to people who need to work in multicultural settings.

For future work we intend to interview and observe military personnel about their experiences of working in coalition environments, and if they then have come across people more talented at making things work in such an environment. These "more talented" people, referred by their peers, will be interviewed and observed in order to see what strategies (if any in particular) they use in a multinational setting. Our hypothesis is that the successful communicators will be using grounding strategies that match

sensemaking procedures and are more accomplished at transferring these to create common ground. The ways in which they achieve this may be possible to extrapolate and then also teach others, making future multinational ventures flow more smoothly.

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