

Metacognition in Intercultural Communication

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Metacognition refers to the monitoring and regulation of one's thought processes. Early research into metacognition focused mainly on the ability of children and adults to manage their memory and comprehension. For example, researchers tested how well students could judge whether they had perfectly memorized a set of nonsense words, or how well they could detect missing or unclear phrases in written instructions. In 1979, psychologist John H. Flavell characterized metacognition in much wider terms, suggesting its utility to higher-order thinking and social interaction. The framework has found application in these areas, and been further extended to address issues in intercultural communication.

Metacognitive capabilities begin to develop from an early age. Children as young as three acquire an awareness that they know things. At four years of age, children become aware that other people have beliefs that may be different from their own. Metacognition continues to mature over an extended period of development, as it is brought to bear on increasingly difficult, complex mental tasks. In so doing, it becomes more consciously controlled and potent, resulting in intricate metacognitive capabilities that many adults do not attain (Kuhn, 2000).

Communicating effectively with people from different cultures is a feat that calls for substantial metacognitive involvement. The idea that cultural others' beliefs, desires, and behavioral norms may be shared among themselves, but differ in systematic ways from one's own represents foundational metacognitive knowledge in this domain. Knowledge of ways in which the effectiveness of intercultural communications depends on the interactions of people, tasks, and strategies elaborates the foundation. Such knowledge is functional in its direct support of communication planning, monitoring, adjustment, and review processes that are intended to enhance the quality of intercultural interactions.

Metacognition is closely related to the concept of mindfulness in social psychology and intercultural communication (Flavell, 1979; Gudykunst, 2004). When interacting with individuals from different cultures, a mindful communicator maintains awareness of the distinct context of the situation, along with each party's cultural assumptions. By attending to subtle nuances that engender a unique experience, the communicator attempts to overcome the natural inclination to interpret behavior based on preconceived categories. Hence, the concepts of metacognition and mindfulness both reflect the management of one's own cognition. Studies of phenomena relevant

to each concept stand to inform one another, both in and out of the intercultural communication context.

In cognitive psychology, metacognitive functions are most often examined under the heading of “executive control.” They are treated as any other concrete cognitive process in that they can be precisely specified and linked to particular brain regions (generally within the prefrontal cortex). Just as an executive within a company is a person and an employee whose functions include managing other employees, executive cognitive processes work alongside and manage other cognitive processes, such as memory, categorization, and language comprehension. A few key executive control processes serve to regulate other cognitive processes, such as plan, monitor, control or adjust, and reflect (Zimmerman, 2000). These executive processes draw on specialized knowledge and experiences to be effective.

In intercultural communication, planning includes setting communication objectives, as well as anticipating ways the cultural context influences the task, likely responses, and utility of strategies. For instance, planning can be as mundane as anticipating that no mutual language is understood between oneself and one’s counterpart, and that it would therefore be useful to bring an interpreter to a proposed meeting.

Monitoring comprises in-the-moment evaluations of progress toward one’s goals, and how experiences align with expectations during an intercultural episode. For example, monitoring during a sojourn might reveal that adherence to an anticipated cultural custom that one has intended to follow is not expected (or desired) of foreigners. Control processes involve the selection, adaptation, and adjustment of goals and strategies for accomplishing intercultural communication tasks. For instance, in the face of an unanticipated, unpleasant conversational turn, one might set a new goal to find out what spurred the reaction. Finally, reflection represents review and reconsideration of actions and events that occurred within the context of a prior intercultural episode.

Metacognition serves to regulate intercultural engagements at multiple timescales. For example, a sojourner may engage in substantial planning before an 18-month trip abroad, perhaps including seeking out preexposure to cultural norms and customs. While on travel, the sojourner would, at some level, monitor for overall success and setbacks, and make adjustments generally aimed to reduce stress and improve relationship quality. The sojourner is likely to reflect upon and discuss experiences upon return. In the context of a face-to-face engagement, for instance, individuals may set communication objectives before direct interaction with another, monitor progress toward their overall aims of the conversation, and reflect on and update some of their misaligned cultural assumptions and expectations after the encounter. Finally, planning, monitoring, control, and reflection are all in play within an intercultural interaction, as well. Within a conversation, a speaker may plan, monitor, and adjust speech acts and conversational moves to continue the conversation along a particular path.

These executive control processes apply to intracultural, as well as intercultural, communication. Yet, intercultural communication places unique demands on metacognition. For example, negotiation and collaboration success are more closely linked to

clear, comfortable, trust-enhancing communications when the parties are from different cultural backgrounds than from the same cultural background. In the context of intercultural communications, the executive processes of planning, monitoring, control, and reflection are supported by specialized metacognitive knowledge related to people, tasks, and strategies.

Metacognitive knowledge is that slice of a person's general world knowledge that has to do with people as cognitive beings. It is what one understands about people's diverse mental capabilities, styles, intentions, and experiences, including that cognitive variety is determined in part by cultural background. An example would be a sojourner's belief that he is very explicit and precise when relaying his thoughts through speech, whereas his hosts tend to leave a lot of details unstated.

Metacognitive knowledge includes a person's understanding of the factors that influence the process and performance of cognitive work. Flavell (1979) described three major sets of factors: person, task, and strategy. The set of person factors includes beliefs about the nature of one's own and others' cognition, including both inner operations and displayed mental functioning in social contexts. Metacognitive knowledge about people also comprises beliefs about cognitive universals and differences. Cognitive variations can pertain to differences within oneself, such as an octogenarian's belief that her ability to remember new things has declined with age. They also include beliefs about differences between individuals, such as a belief that a particular colleague is better able to adapt to new cultures than most others. And, they can involve cross-cultural differences, such as the belief that some groups tend to share more individualistic values, whereas others tend toward collectivistic values.

Metacognitive knowledge about factors pertaining to tasks include beliefs about possible variations in the specific setting, structure, aims, and constraints of the task. It additionally consists of understanding about how those variations interact with possible strategies to influence one's likelihood of attaining desired outcomes. For example, an expatriate may believe that attempting to build rapport with someone from another culture entails more preparation than with folks near home. Another task-related belief might be that building initial rapport and closing a business deal are distinctive tasks that require a different comportment with respect to the host culture. Finally, an example of setting as a factor includes the possible belief that intercultural communication demands differ when one is a sojourner interacting with host nationals versus when communicating with foreigners in one's homeland.

Another form of metacognitive knowledge is the store of strategies one has acquired that support cognitive work. These include a variety of heuristics that aid social interactions with people from different cultures. Strategies are sometimes delineated as metacognitive, cognitive, or social in terms of the function they serve. Metacognitive strategies serve a monitoring or self-regulatory purpose. They provide the means to affect the executive control processes of planning, monitoring, adjusting, and reflecting described above. In contrast, cognitive strategies aid directly in the processing of information, whereas social strategies facilitate interactions with others. However, these labels cannot be exclusively applied, in that a particular strategy may be employed for multiple purposes, and can yield multiple kinds of effects whether intended or not. For example, a sojourner may sense annoyance in the host counterpart she is speaking

with. Rather than continuing along the current conversational pathway, she asks if she misspoke in some way. In so doing, she has adopted a new conversational goal and plan (metacognitive effect), may acquire some direct cultural information (cognitive effect), and possibly smooth over the social gaffe by displaying sensitivity to the feelings of the person she's conversing with (social effect). Hence, labels such as these may be better thought of as describing potential attributes of a strategy, rather than categories for the broad classification of strategies.

Using a process-tracing method, Sieck, Smith, and Rasmussen (2013) found evidence for five strategies that aid in regulating intercultural communications that appear to have gone awry. First, the strategy of noticing anomalies involves directing additional mental resources to increase vigilance in monitoring one's ongoing activity and personal reactions in intercultural communications. This heightened checking increases the likelihood that one will detect behavior that conflicts with one's current conception of the culture.

Once a surprise is registered, one may instantiate a general culture schema. With this strategy, a person entertains the notion that the unexpected behavior may result from cultural differences, without necessarily having any specific idea as to their nature. If the unexpected act is instead attributed to the ordinary randomness of humans, then it may be quickly dismissed without further consideration. The strategy of inquiring into causes of the anomaly influences executive control as it entails a shift in communication goals. In this case, a new goal is established to determine the specific cause of the unexpected observation. This could, for instance, involve directly asking "why" questions with the aim of achieving new insights into culturally diverse others.

Another strategy is to consider alternative explanations of unanticipated behaviors. Generating a single explanation tends to result in overconfidence that the explanation is true. Deliberatively seeking multiple explanations reduces the chances of unwarranted confidence, as well as the possibility that one will settle on an oversimplified, stereotyped explanation of intercultural communication behavior. In addition to the evaluation of possible explanations of behavior, one can reflect on the sufficiency of evidence in support of a particular attribution. With this strategy, one suspends one's judgment with regard to what's happened when the evidence is found wanting, and sets an objective to acquire further cultural information.

Cognitive work draws on metacognitive knowledge to be effective, and also gives rise to conscious experiences pertaining to the efficacy of the work. These are called metacognitive experiences. They can be cognitive or affective in nature, so long as they signal events that relate to cognition. For example, in conversation with someone from another culture, a sojourner may experience a feeling of puzzlement and wonder as to whether he missed something earlier in the sequence of the discourse.

Metacognitive experiences are most prevalent in novel contexts that inspire highly conscious, thorough thinking, such as when traveling abroad. As in the executive control process as a whole, metacognitive experiences can pertain to different timescales. For instance, a person might experience a sudden feeling of confusion in response to the immediately preceding utterance in a conversation. Or, a sojourner might have a recurring feeling over an extended period that they don't really understand the underlying logic of the people in a culture.

Metacognitive experiences are an important aspect of quality control. They can be thought of as internal feedback signals that influence executive processes, such as by setting a new sub-goal to master a common and customary greeting, changing strategies in an intercultural negotiation to better address one's goals, or abandoning a collaborative endeavor altogether.

As an extended example of metacognition in intercultural communications, consider how metacognition might arise in a creative collaboration task involving culturally diverse dyads, such as one used in the studies of Chua, Morris, and Mor (2012). An executive business student is given the task of generating a creative solution to a challenging problem. She recognizes that an important element of the task involves collaboration with another person, and one who is culturally very different from herself. Upon first sight of her partner, the student initially feels some consternation (metacognitive experience), accompanied by activation of her metacognitive knowledge that their differences will make it harder to interact, and perhaps to meet the basic requirements of the collaborative task. At this point, she might consider strategies to minimize the collaboration, and essentially tackle the task in a solo or independent fashion. She may, however, draw on other metacognitive knowledge indicating that their differences give rise to increased creative potential. That is, an idea may enter into her awareness at some level that, because she and her collaborator have distinct backgrounds, the pair will likely know different things and see the problem from diverse points of view. Hence, their collaboration has the potential to produce a better solution than if she worked with someone who was more like her. In this case, the student might attempt to draw on strategies that would provide the best shot at realizing the pair's creative potential.

For instance, she may also be aware (i.e., hold metacognitive knowledge) that spending time making small talk is one possible way to get more in tune with her partner, and calibrate the communication. She may believe this is especially useful when the other is culturally different from herself. She might briefly envision metacognitive, cognitive, and social benefits of the approach, though without the explicit use of those labels in all likelihood. Thus, she might attempt to spend at least a few moments early in the partnership attempting to build rapport with her new colleague, identifying and reflecting on ways of overcoming any communication difficulties that arise. During the interaction, the student would experience the actual level of communication difficulty in this intercultural collaboration. She may be more aware of awkward moments (via monitoring), yet check her reactions by keeping in mind that cultural differences are the likely source of the impediments (strategy). If conversation is even more difficult than anticipated, perhaps due to language differences, then she may adjust strategies, such as by drawing pictures or diagrams to support the joint effort.

There is currently insufficient empirical research into the role of metacognition in intercultural communication. However, initial studies suggest cultural metacognition as a promising area of research. Two primary means of investigating metacognition in intercultural communication are process-tracing methods and self-report questionnaire methods.

Process-tracing methods are used to capture what people are thinking while performing a task, in addition to collecting the primary behavioral task responses. Within a process-tracing approach, metacognition provides a theoretical framework for organizing and analyzing participants' thinking during an intercultural encounter. A primary goal in these studies is to describe in detail the particular metacognitive elements of thought that arise in a given task, and to determine how those elements relate to task performance or general cultural competence.

The think-aloud technique is one commonly used process-tracing method. Think-aloud procedures have been fruitfully applied to trace cognitive and metacognitive processes in education research, developmental psychology, and cognitive science. Think aloud has been employed to investigate variations in cognitive styles across cultures, as well as metacognition in intercultural interactions (Sieck et al., 2013).

With this research technique, study participants think out loud while reasoning through intercultural problems. Their responses are recorded and transcribed. Researchers then code the verbal report data using a predefined scheme, looking for indications of executive processes, such as planning or monitoring, metacognitive knowledge related to person, task, or strategy variables, or metacognitive experiences, depending on the particular aims of the study.

For example, a study by Sieck et al. (2013) focused on uncovering metacognitive strategies that expert and novice participants used to make sense of unexpected behavior in an intercultural interaction. The underlying logic of the approach was that explicitly identified strategies were associated with intercultural competence to the extent that they were indicated more frequently in the verbal reports of cross-cultural experts than novices. With the think-aloud approach, participants must spontaneously generate and apply a strategy or other aspect of metacognitive knowledge while engaging in the intercultural task. Hence, the standard of evidence is relatively high for revealing metacognitive elements of thought.

Self-report questionnaires have been developed to measure individual variations in metacognitive ability in the context of intercultural interactions (Van Dyne et al., 2012). The general idea of this approach is to focus on a few key aspects of metacognition that can be measured independently of any particular intercultural task. With this approach, researchers do not seek to identify the precise metacognitive knowledge and strategies that people employ in tasks involving intercultural communication. Rather, the orientation is to determine whether an individual's cultural metacognitive ability is relatively "high" or "low" as compared with others in the sample. Researchers then examine whether the ability measures predict performance in tasks involving intercultural interactions.

Van Dyne and colleagues (2012) focused on three key aspects of metacognition in their questionnaire. Two of these relate to executive control processes: (a) the extent to which a person makes plans prior to intercultural interactions, and (b) the extent to which a person checks and adjusts expectations during intercultural interactions, which combines both monitoring and control functions. The third is a global measure of metacognitive knowledge pertaining to intercultural tasks. Referred to as metacognitive awareness, this aspect assesses the extent to which a person believes they know how to make use of cultural knowledge in an interaction.

As an example application of this approach, Chua et al. (2012) tested the association between cultural metacognitive ability and intercultural creative collaboration. In one experiment, two-person teams worked together to create a new recipe for a meal using ingredients from different cultures. The researchers assigned participants to teams so that the members had different cultural backgrounds and no prior relationship. Finally, some teams were assigned to hold a personal conversation before beginning the main collaboration, whereas others were not permitted this rapport-building activity. The researchers found that higher cultural metacognitive ability was associated with an increase in the sharing of ideas and the creativity of the recipes (determined by an external panel of judges). However, the relationship only held for the teams who were allowed a personal trust-enhancing conversation.

The underlying logic of this kind of study is that people who rate themselves highly on a metacognition questionnaire are more likely to employ specific, reasonable strategies and other metacognitive knowledge that influence performance on the particular intercultural communication task at hand. The use of metacognitive strategies and knowledge while engaged in the task increases performance on the criterion of interest.

Cultural metacognition is related to cultural intelligence. Cultural intelligence (CQ) has been defined as the capability to function effectively in intercultural settings (Van Dyne et al., 2012). Metacognition is generally assumed to play a role in cultural intelligence, where it is sometimes referred to as metacognitive CQ. However, no generally agreed-upon description of the specific nature of that role presently exists. In earlier descriptions of CQ, metacognition was implicitly represented as an aspect of the cognitive component of CQ. In some later descriptions, it is represented as one of four independent dimensions, the others being cognitive, motivational, and behavioral. Other renditions of cultural intelligence define the concept as a system of interacting abilities, wherein cultural metacognition occupies a central role in which it serves to link other abilities together (Thomas et al., 2008).

Whether cultural metacognition is ultimately found to be a peripheral aspect of cultural intelligence, one of several independently functioning CQ capabilities, or the culture-general, executive process component upon which intelligent application of other cultural knowledge and skills depend, it has proven worthy of focused investigation of its own. Just as many studies of metacognition are conducted independently of any theories of intelligence in educational research and cognitive psychology, so too can metacognition in intercultural communication be investigated independently of the various conceptions of CQ. And doing so is useful in order to develop the stronger empirical basis needed to elaborate and refine the core theory of cultural metacognition.

Another important area for further investigation of metacognition in intercultural communication has to do with its development, and ways that development can best be supported. Two ways of supporting the development of cultural metacognition include direct practice with reflection, and social interaction. In the first approach, students are encouraged to reflect on their intercultural communication experiences, whether from a training exercise or authentic lived event. For instance, students might consider how events unfolded, other possible interpretations of behavioral intentions, and alternative approaches they might have taken. In this way, they exercise control processes and

activate metacognitive knowledge that can eventually be applied in real time. This kind of approach has been suggested by several investigators, and also found as a technique commonly employed by professionals who work in many cultures (Rasmussen & Sieck, 2015). A second approach for supporting the development of cultural metacognition attempts to exercise these patterns of thinking outwardly in social interactions, with the anticipation that doing so will lead to their individual internalization.

As mentioned at the outset, metacognition develops throughout the childhood years, and well into adulthood. Currently, there is no known upper limit to metacognitive potential. The process of development has been most explicitly investigated with the use of microgenetic methods, a form of process-tracing directed at the process of acquiring new knowledge. Microgenetic methods have been useful in revealing how knowledge acquisition strategies are transformed, as well as capturing conceptual changes (Kuhn, 2000). An important finding in this line of research is the essential role of metacognition in promoting the sustained use of strategies outside of the instructional context. As applied to cultural training, this result suggests that the acquisition of knowledge about other cultures by itself is unlikely to have strong or lasting effects on the effectiveness of intercultural communications. In addition, people need to learn how to make strategic use of that knowledge to support their interactions, as well as how to manage and select strategies depending on the nature of the communication task and other people involved.

SEE ALSO: Anxiety/Uncertainty Management (AUM) Theory; Cross-Cultural Competence; Cultural Intelligence; Developmental Model of Intercultural Sensitivity; Intercultural Competence Development

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