People everywhere value good relationships and logical, effective communication. Yet the way people discuss issues, make decisions, or resolve problems often do not appear logical to an outsider. Even after missionaries and other cross-cultural workers have adjusted to differences in body language, developed positive relationships with those they serve, and learned local terminology, they may still experience frustration with the seemingly illogical and apparently inefficient way communication and decision-making is processed in the local culture.

This article seeks to identify the underlying structures of logic that influence cultural differences in communication and decision-making styles. The assertion that language reveals deep differences in cultures is a contested idea among linguists. The first section of this article summarizes these opposing viewpoints. Then, to discover whether language is a reliable window into aspects of a culture’s worldview, theories of how thought and language intersect and influence speech categories will be surveyed. In order to conceptualize differences in cultural communication patterns, the second part of the paper suggests a method for illustrating the type of logic preferred in selected languages and, in the final section, the importance for mission practitioners of understanding differences in logic systems will be explored.

The discussion of logic in this article is not based upon traditional rhetorical categories nor do the logic systems described reflect standard linguistic theory. Rather, the goal of this discussion is to identify the integrative logic revealed in a language that helps a cross-cultural worker make sense of the
communication styles, conflict resolution patterns, and speech categories of those who speak it. Many dangers accompany the discussion of cultural norms based upon generalizations about specific language groups. Widely disparate cultures speak the same language and people within cultures vary greatly in communication style and personal behavior. Generalizations, whether about Asians or Americans or Adventists or any other large category of people, obviously will be reductionistic characterizations and necessarily imperfect representations. However, generalizations can provide helpful insights to the cross-cultural worker who uses them as a beginning point for understanding another culture’s internal logic with the goal of an enhanced ministry.

**Language, Thought, and Worldview**

The idea that the structures of a language reveal the inner thought processes of those who speak it was articulated in the nineteenth century by Wilhelm von Humboldt, noted philosopher, diplomat, and linguist (von Humboldt 1988:60). A century later linguist and anthropologist Edward Sapir with his student and colleague Benjamin Whorf expanded von Humboldt’s thesis, highlighting the interrelationship of language and thought. Whorf describes their “principle of relativity” in this way.

> We dissect nature along lines laid down by our native languages. The categories and types that we isolate from the world of phenomena we do not find there because they stare every observer in the face; on the contrary, the world is presented in a kaleidoscopic flux of impressions which has to be organized by our minds—and this means largely by the linguistic systems in our minds.

**As the vehicle of thought, language both shapes and is shaped by a culture’s worldview.**

We cut nature up, organize it into concepts, and ascribe significances as we do, largely because we are parties to an agreement to organize it in this way—an agreement that holds throughout our speech community and is codified in the patterns of our language (1956:213)

Language provides the categories through which a people see and describe their world. As the vehicle of thought, then, language both shapes and is shaped by a culture’s worldview. To better understand the relationship between language, thought, and worldview, linguists, anthropologists, psychologists, sociologists and
others have looked at the physiological, environmental, social, and historical factors that influence languages around the world.

**Physiological and Environmental Factors**

The Sapir-Whorf hypothesis, as the principle of relativity has come to be known, fell into disfavor in the 1960s when linguistic theories began to focus on the more universal and innate characteristics of language. The fact that human infants have an innate ability to learn language, any language, suggests that all people share similar internal mechanisms for language acquisition (Chomsky 1972:113). Some linguists go so far as to call Whorf’s position “radical” and claim that “the more you examine Whorf’s arguments, the less sense they make” (Pinker 1994:60). According to Pinker a single “mental design” underlies all languages. Language is an instinctual human response using sounds to convey meaning. “People know how to talk in more or less the sense that spiders know how to spin webs. . . . Language is no more a cultural invention than is upright posture” (Pinker 1994:18). The belief that thought and language are innate physiological processes rather than cultural artifacts has dominated linguistic theory for decades.

Cognitive anthropology accepts that, while people in every culture use similar mental structures to think, knowledge systems vary between cultural groups (Bergin 2001:367). Thus, many students of language reject the extremes of both linguistic relativity and instinctual language advocates and are working to understand empirically how language and thought interacts. Experimental research suggests that language can influence some types of thinking, such as a people’s ability to use mathematics and discriminate color differences. No words for numbers exist in Piraha, the language of an Amazonian group, nor any way of expressing quantification. Despite extensive training adult members of the group were unable to learn simple mathematics (Everett et al. 2005:626). Kay and Kempton working with the Tarahumara people found a high likelihood of confusion when trying to distinguish blue and green color chips. The Tarahumara language contains no word for blue but groups blue and green shades together (Kay and Kempton 1984:68). Whether the confusion is the result of an inability to distinguish the colors or merely the lack of appropriate words is unclear. Humans can distinguish many more shades of color than there are color names in any language yet every language provides the words its speakers will use to name what they see in their environment.

Both physiology and environment play a role in language de-
velopment and use but need not be mutually exclusive. It is reason-
able to think some aspects of human thought must be non-
linguistic and equally clear that language shapes the thoughts them-
selves by providing culturally determined categories for their expression. Thus, thought
and language cannot easily be separated because they are
embedded in a social-historical setting.

Social-historical Factors

In his 1976 book *Cognitive Development* Alexander Luria, a Russian psychologist, reports
on a 1930 ethnographic study done in the remoter regions of the Soviet Union during the early stages of communist re-
structuring. Several Uzbek and Kirghiz groups were studied, ranging from uneducated, illit-
erate peasants to collectivized somewhat-educated farm work-
ers to students in a teachers’ school. The ability to classify
shapes and colors into abstract categories varied greatly between
the groups. Only the students grouped shapes into geometrical
categories (e.g., circles, squares, like a square, or like a triangle).
Most of the subjects gave con-
crete names to the shapes (e.g., it is a bracelet or watch or em-
broidery) and found it difficult
to group similar shapes together
because they represented dis-
crete objects to them (1976:32, 33). Likewise, only the most
educated subjects could group
colors together. The less edu-
cated gave mostly object names
to colors (e.g., peach, liver, iris)
and declared that they could not
be grouped together because
they were not alike (1976:25-27). Luria concluded, in line
with Marxist-Leninist thinking
and evolutionary theory, that
“the basic categories of human
mental life can be understood as
products of social history—they
are subject to change when the
basic forms of social practice
are altered and thus are social
in nature” (1976:164).

No doubt social history plays
a substantial role in altering
peoples thinking, yet one would
be hard-pressed to substanti-
ate that such change always
represents an improvement or
evolutionary progress in human
sociology or physiology. More
likely, the additional categories
social history and education
provide only offer new applica-
tions for modes of thought al-
ready available, hard-wired into

Thus, the social historical per-
mutations of thought, language,
and worldview are deeply inter-
twined with human physiology,
environment, culture, and per-
sonal experience.

Language and Mission

While linguists, psycholo-
gists, anthropologists, neurosci-
entists, and other researchers
sort through these complex rela-
tionships Whorf’s multi-cultural
vision remains persuasive. Only
by studying different languages
and cultures, he reasoned, can
we come to understand the logic behind the categories different people place upon their world.

I believe that those who envision a future world speaking only one tongue, whether English, German, Russian, or any other, hold a misguided ideal and would do the evolution of the human mind the greatest disservice. Western culture has made, through language, a provisional analysis of reality and, without correctives, holds resolutely to that analysis as final. The only correctives lie in all those other tongues which by aeons of independent evolution have arrived at a different, but equally logical, provisional analysis (Whorf 1956:244).

To witness cross-culturally, missionaries need to find tools to help them understand the innate logic within every culture. Language provides a window into a culture, revealing underlying values, and portraying the culture’s preferred logic system. Understanding the logic of discourse in a culture can help missionaries communicate more effectively and help them appreciate the worldview of the people they serve. Only then can their lives and witness become incarnational and Christ-like.

Although people everywhere share similar physiological brain functions and can think in a multitude of ways, different cultures have found different ways of thinking about their world. They have developed different answers to the questions life brings. They experience the world in ways consistent with their worldview and have languages that facilitate their interactions with their environment and communications with their social group. When meeting other cultures with divergent ideas, strange systems of thought, and dissimilar ways of describing the world, most people find those differences disturbing and, often, incomprehensible. They usually experience the differences as illogical (Bergin 2001:371).

Language Logic Systems
While people in every culture can think in many different ways, a certain logic system is taught and valued by each culture. The very assumptions people have about what is logical, the categories they use to
think about their world, and the way they speak are all defined by their culture. These assumptions are taken for granted and rarely examined because they arise out of a people’s worldview. Worldview assumptions permeate every aspect of life but, because they are implicit, they are hard to identify or explain. One of the often unrecognized issues in cross-cultural mission is the worldview clash between different logic systems. In order to better understand this worldview clash, studying the logic of a particular language can provide insight into the hidden structures underlying a people’s communication style and thinking categories.

The idea that different languages use different rhetorical logics was advanced by Robert Kaplan over thirty years ago and described by diagrams similar to those that follow (1972:64). Kaplan was endeavoring to show the different logical systems needed for good expository writing in various languages. Unfortunately, the human tendency to negative attribution can create stereotypes based on these simple diagrams that, too often, lead to prejudice. “Even though this was of course not what Kaplan had intended, many believed that Americans were direct and straightforward, Chinese devious and roundabout, and the French illogical and untrustworthy, and that those qualities were the direct result of the language they spoke” (Kramsch 2004:254).

Language logic systems merely provide an indication of how a culture processes communication. As such they are value-neutral and, for the cross-cultural worker who wishes to communicate appropriately, important to adopt. “Anyone who has seriously studied how language works is aware, however, that it shapes even as it articulates thought” (Hayles 1991:5). Although language and communication styles cannot be used to stereotype entire nations, the way a culture chooses to communicate does provide to the serious student an entry point for exploring underlying thought patterns and assumptions. Logic is encoded by a language, so while the following logic systems are obvious over-
simplifications, they generally reflect the primary logic system valued and taught in the various languages.

**Binary Languages**

English, along with many Western European languages, is based upon binary logic that requires sharp dichotomies between opposites (Eoyang 1989; Derrida 1974). Words are supposed to have discrete meanings (“bounded sets”) and a clear direction, thus, the preferred logic in English is linear logic. The structure of linear logic requires three parts: a thesis, a main point, and evidence. This may explain why traditionally a good English sermon was thought to contain “three points and a poem.” For writing or speech-making to be “logical,” the thesis must be supported by the main point and the main point must be supported by the evidence. Scientific writing largely uses linear logic with the evidence confirming or denying a hypothesis. All English-language school children are taught to outline 1 a, b, c, - 2 a, b, c, - etc.

German logic utilizes a Hege- lian dialectic. Germans value a strong back and forth discussion of opposite opinions, strongly stated. One person states an opinion (thesis) and backs it up with substantial evidence. A second person states an opposing opinion (antithesis) adding every possible argument to bolster the case. Back and forth they go, each person seemingly trying to convince the other to completely reverse their opinion. Although it may appear impossible during the vigorous discussion, the goal is to ultimately arrive at a compromise (synthesis) to resolve the contradictions. This synthesis may become a new thesis to be further argued.

French logic might be called digressionary. French value a lengthy, learned discussion of many related (and sometimes unrelated) topics that show the speaker’s knowledge and “light- en” the presentation. A lecturer in French will begin to discuss a topic, digress to include other topics, only occasionally returning to touch upon the topic of the day. Similarly, traditional French

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1. **English**—linear

2. **German**—dialectical

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novels are often very long, involving many characters, and weaving together many stories.

All of the three languages just described are based upon binary logic (Hayles 1991:3). The binary nature of Western logic is obvious in languages filled with antonyms: up/down, in/out, hot/cold, black/white, young/old. Name almost any adjective and Westerners can instantly name its opposite. Much of Western technology is based on binary logic. A machine is either on or off, an invention is either successful or a failure, even computer languages use only two digits. Interestingly, in recent decades using “fuzzy” algebra (as opposed to the Euclidean algebra of Western machines) the Japanese have invented furnaces and other machines that do not have to be either fully on or fully off. They maintain temperature at the optimal range by small fluctuations rather than on/off dichotomies. The two values of Western logic tend toward either/or thinking—something is right or it is wrong.

Contextual Languages

Unlike many Western European languages, other languages do not require a sharp demarcation between opposites. Opposites may both be right, just different. Taoism, for example, has a four-valued logic (Hayles 1991:3). Bad is the opposite of good but there may also be un-good and un-bad that are not necessarily the opposite of good and bad, and may actually shed light on the good and the bad.

This more nuanced, contextual logic can be seen in many Asian languages. The Chinese and those cultures heavily influenced by them have developed a type of dialecticism that seeks to transcend opposites and understand relationships. Unlike the German Hegelian dialecticism that aims to resolve contradictions, the goal of the Chinese dialectic is to embed the discussion in the widest possible context.

In the Chinese intellectual tradition there is no necessary incompatibility between the belief that A is the case and the belief that not-A is the case. On the contrary in the spirit of the Tao or yin-yang principle, A can actually imply that not-A is also
the case, or at any rate soon will be the case. Dialectical thought is in some ways the opposite of [Western?] logical thought. It seeks not to decontextualize but to see things in their appropriate contexts (Nisbett 2003:27).

The indirect discourse common in Japanese illustrates this type of contextual logic. Japanese value a discussion around the issue without directly mentioning it. Explicit discussion is thought unnecessary and childish. The context provides clues to what others are thinking. What is not said is as important as what is said, with body language, tone of voice, and other non-verbal cues sending most of the message. Westerners often find such discussions unsatisfying and confusing while the Japanese understand each other well and wonder why the Westerner is so childish. After all, contextual logic dictates that adults understand from the context without having to have everything completely spelled out.

The differences between “high context” cultures and “low context” cultures have been explored by a number of authors (e.g., Dodd 1998:89-92; Gudykunst and Kim 1992:44-45; Nisbett 2003:93-96). Ongoing research documents the physiological realities of such differences by photographing the eye movements of individuals from both types of cultures as they look at pictures. The eyes of those from high context cultures tend to focus on the background, the context, while the eyes of individuals from low context cultures tend to focus on specific objects (Chua, Boland, and Nisbett 2005). Likewise, binary (low context) logic systems attempt to isolate the truth from all extraneous data while contextual (high context) logic systems try to include as much data as possible in order to understand the complexity of the situation.

Many African logic systems reveal a similar concern with the context. Bantu is a family of languages found across sub-Saharan Africa from Kenya to Congo and south to South Africa. Bantu languages value the use of proverbs, stories, metaphors, and other illustrative techniques to discuss the issue at hand. When a community

5. Bantu—illustrative
6. Mediterranean—pictorial
comes together for a discussion each speaker contributes a story, explains what they saw happen, tells a proverb or illustrates their perspective through metaphors or allusions. After everyone has had an opportunity to speak, the chief will announce the solution to the problem based upon his perception of the group’s consensus. Like the petals of a flower, each contribution has provided another bit of information that only together makes something worthwhile and acceptable to the whole. This type of discussion is, of course, a time consuming process and to the outsider often seems like a waste of time. The group’s contributions appear unrelated and the chief’s conclusion arbitrary and authoritarian. In reality, when the process works well, it is radically democratic. The chief’s job is to listen carefully to what is said and discern from the context the will of the people. He then articulates for them the consensus of the group. Such a process reinforces the cohesion and cooperation needed in cultures that place a high value on community.

Contextual logic is also very common in Southern Europe. People paint a picture with their words. When they discuss, it’s a long discussion. They talk and talk and talk and talk. And a person who comes from a linear culture asks, “When will they get to the main point?”... The whole discussion is the answer to the question. At a certain time, they start to agree, they reach a consensus, and then they finally all agree, “Yes, Yes, now I see the whole picture” (2000:163).

Japanese, Bantu, and languages from the Mediterranean region, while very different from each other, all utilize contextual logic. Contextual logic systems found in Europe. A third group of languages, mostly in the Mediterranean region, emphasize contextual logic. Mediterranean languages value flowery and picturesque images that paint a picture of the issue. A topic is discussed with descriptive speech and wide gesticulations, often at some volume, and sometimes with several speaking at once. Time is required to flesh out the entire scenario. Kalevi Lehtinen, a Campus Crusade for Christ director in Europe, describes this process.

Japanese value a discussion around the issue without directly mentioning it. Explicit discussion is thought unnecessary and childish.
arise from and, in turn, reinforce cultural values of community, consensus-building, giving honor, and avoiding shame. Logic systems, encoded in language patterns, can reveal deeply held cultural values and provide glimpses into foundational worldview assumptions.

Missionaries and Logic Systems

Most missionaries, and others who serve cross-culturally, experience some frustration in intercultural or multi-cultural communications. Because of the international nature of the Seventh-day Adventist Church, missionary teams are usually made up of families from many different countries in addition to incorporating team members from the local culture. Immigration, easy travel, and the global economy make many churches around the world multi-cultural. While church operations are generally based upon American-style systems (e.g., Robert’s Rules of Order, Western accounting methods, etc.), the local culture, or mix of cultures, inevitably changes interpersonal relationships, church polity, decision-making, and conflict resolution. As a result, many missionary teams, church boards, and other church groups find deep communication, heart-to-heart understanding, and, ultimately, true fellowship difficult.

To build good working relationships, cross-cultural workers must endeavor to understand the cultural shaping of their team members. By seeking to discover the deeper layers of culture—beliefs, values, worldview—they can help bring to the surface differences in their implicit assumptions about appropriate communication styles, effective conflict resolution, and their preferred logic systems. Often, only by understanding and utilizing the logic of a team member can communication be improved and conflict avoided.

Lianne Roembke describes her difficulty accepting and then learning to use a different logic system.

Inwardly I fought the German pattern of dialectic thinking (coming from a culture that has linear logic) when the discussion seemed endless and rather heated to me. Cutting off the discussion process for my German colleagues, however, was a serious insult, and was perceived as a lack of respect for each individual opinion, communicating superficiality and an unwillingness to go through the process to get to a conclusion. Through feedback at many points over time, I finally understood this, but it still “felt” foreign to me and I “felt” that the tone of voice was very close to what “felt” like sin. Because of understanding the process and a conscious decision not to offend, I was able to participate in and endure this process long before I could appreciate it. Now I like it! (2000:81-82).

Like Roembke, missionaries have to identify the logic system of the culture before they can accept behaviors that “feel” wrong and before they can learn...
to appreciate and use that logic themselves. Unless cross-cultural workers perceive the internal logic of the various cultures they deal with, they will most likely judge communication behaviors by their own logic system, leading to misunderstanding, negative attribution, and often, conflict.

Sometimes differences in logic systems account for lifelong misunderstandings even within families. One American missionary in a training program learning about different types of logic exclaimed, “You’ve just described my father. He is an immigrant from Germany and always seems to debate me. I’ve asked him many times why we can’t have a simple conversation without an argument.” In a telephone call that evening this missionary found a new level of acceptance and understanding of her father that she had long desired.

Besides aiding interpersonal communication, understanding a culture’s preferred logic system helps missionaries shape their contributions. Missionary doctors will know that patients using contextual logic have to describe the context not just the specific symptoms and need to have contextual responses. Missionary administrators from high context cultures will understand why those members of their teams from low context cultures have difficulty unless decisions are spelled out. Missionary pastors will preach using their hearers’ preferred communication style and logic system. Missionary educators will reinforce the local logic system in their classes rather than insisting students use a different logic system in their assignments or will explicitly teach a different logic system if that is required. Members of multi-cultural teams will give allowances for the different logic systems in use and work together to shape a communication style acceptable to their team.

Determining what that communication style should be can be a thorny dilemma. Often a
A multi-cultural team uses by default the language and communication style of the majority of its members forcing local people and others in the minority to adopt a style foreign to both their home culture and the host culture. Roembke suggests that missionary teams need to work toward adopting the language and logic system of the country where they serve (Roembke 2002). Thus, missionary teams in Mexico work toward utilizing the Spanish language and logic system even if most team members are English-speaking and missionary teams in China learn to use the Chinese language and logic system even if most team members are Korean-speaking. Any time there is a mix of cultures on a team, the team ethos will inevitably become a unique bi-culture of its own. If, however, the team’s goal is mission the team culture must adopt, as much as possible, local cultural forms in order to incarnate the gospel in life, work, and witness for the people they seek to reach.

**Conclusion**

Every culture values good communication. The categories used to think, the way one speaks, what is considered logical are all defined by one’s culture. People in every culture can think in different ways but a certain logic system is taught and valued by each culture. Until they discern the underlying logic of the culture, cross-cultural workers can find themselves frustrated by the seeming illogical nature of the communication styles and conflict resolution patterns of the people with whom they work. A first step toward understanding can be discovering the culturally appropriate logic system found in language patterns.

This article began with a brief summary of the physiological, environmental and social-historical factors that play a role in the development of descriptive language, writing styles, and other abstract skills. Depictions of the preferred logic style of various languages were offered and applications for cross-cultural communication suggested. Such broad generalizations about languages can be helpful for cross-cultural workers who use them to better identify their own preferred style and to understand the preferred style of the language group they are serving.

Language logic systems are value neutral even if they “feel” uncomfortable or even “sinful” to an outsider. In order to communicate effectively and not give offense, cross-cultural teams need to identify and adopt the language, logic system, and communication style of those they serve. By so doing, they will be following in the footsteps of the One whose story they seek to share.

**Works Cited**


