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.

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 reasonable to think some aspects of human thought must be non-linguistic and equally clear that language shapes the thoughts themselves 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 restructuring. Several Uzbek and Kirghiz groups were studied, ranging from uneducated, illiterate peasants to collectivized somewhat-educated farm workers 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 concrete names to the shapes (e.g., it is a bracelet or watch or embroidery) and found it difficult to group similar shapes together because they represented discrete objects to them (1976:32, 33). Likewise, only the most educated subjects could group colors together. The less educated 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 substantiate 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 applications for modes of thought already available, hard-wired into the human brain (Cole 1976:xv). Thus, the social historical permutations of thought, language, and worldview are deeply intertwined with human physiology, environment, culture, and personal experience.

Language and Mission

While linguists, psychologists, anthropologists, neuroscientists, and other researchers sort through these complex relationships 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).

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).

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.

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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 Hegelian 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 “lighten” 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
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
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
arise from and, in turn, rein-
force cultural values of commu-
nity, consensus-building, giving
honor, and avoiding shame. Logic systems, encoded in lan-
guage patterns, can reveal deeply
held cultural values and pro-
vide glimpses into foundational
worldview assumptions.

Missionaries and
Logic Systems
Most missionaries, and oth-
ers 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. Immigra-
tion, easy travel, and the global
economy make many churches
around the world multi-cultural.
While church operations are gen-
erally 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 relation-
ships, 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 rela-
tionships, 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 as-
sumptions about appropriate
communication styles, effective
conflict resolution, and their pre-
ferred 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 (com-
ing 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 per-
ceived as a lack of respect for each
individual opinion, communicating
superficiality and an unwillingness
go through the process to get to
a conclusion. Through feedback at
many points over time, I finally un-
derstood 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!

Like Roembke, missionaries
have to identify the logic sys-
tem 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
multi-cultural team uses by de-

fault the language and communi-
cation 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 mission-

ary 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 Span-

ish language and logic system 

even if most team members are 

English-speaking and mission-

ary teams in China learn to use 

the Chinese language and logic 

system even if most team mem-

bers are Korean-speaking. Any 

time there is a mix of cultures on 

a team, the team ethos will inevi-
tably 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 catego-

ries 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 dis-
cern 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, en-
vironmental and social-historical 

factors that play a role in the 
development of descriptive lan-
guage, writing styles, and other 

abstract skills. Depictions of 

the preferred logic style of vari-

ous languages were offered and 

applications for cross-cultural 

communication suggested. Such 

broad generalizations about lan-
guages can be helpful for cross-
cultural workers who use them to 

better identify their own preferred 

style and to understand the pre-
ferred style of the language group 

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language, logic system, and com-
munication style of those they 

serve. By so doing, they will be 

following in the footsteps of the 

One whose story they seek to 

share.

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