

A Need to Review the Influences of Language, Culture and Thought on Communication.

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INTRODUCTION

The quality of the communication between nations over trade disputes, between communities over issues such as the placement of military installations and nuclear power plants, and within families and schools over such issues as bullying and health procedures will determine how well we live in the future.

Human communication is involved in all levels of human activity from the global to the intrapersonal. However, among the many influences on communication, the significance of the different roles and influences of language, culture and thought, have remained unclear and inconclusive. The most problematic area is the least observable—thought. Recent findings on the influence of language and culture on cognitive development indicate that a review of the interaction between language, culture and thought is needed. This in turn has significant implications for our understanding of the process of communication, from interpersonal to intercultural—indeed especially for intercultural.

LANGUAGE, CULTURE AND THOUGHT

For the better part of this century, a great deal of discussion has taken place around the relationships between language, culture and thought and subsequently their effect on communication (Valdes, 1986). Some aspects of the discussion reflect the classic Nature vs Nurture debate. Fortunately, there is a very accessible summary of this discussion in relation to second language learning in Brown (1980, 1987), and indeed it is instructive to notice the completely different treatment Brown gives the subject in the two editions of this work. In the earlier edition, Brown clearly favors the view that espouses the universality of language and by extrapolation, the universality of cognitive and affective experience as well (1980). He quotes Guiora and Wardhaugh to support this view against the earlier view of Whorf which claimed that culture and language play a significant role in shaping thought.

In the second edition, Brown all but reverses this position. He offers evidence of the

Whorfian view being misinterpreted, and quotes criticism of Guiora's distorted and unjustified attacks on Whorf. He notes that language teachers today tend to favor the Whorfian hypothesis, though in a more moderate form and attributes this to the intuitive evidence of the interaction of language and culture. The claims for universal language have disappeared, and instead Brown acknowledges that indeed it is possible for aspects of language to create certain cognitive mind sets (1987).

However, even this appears to understate the real situation. Current thinking tends to see all three entities as distinct and yet inseparable, and perhaps best displayed in a circular continuum where each entity mutually influences the other two (Valdes, 1986). The changes described above represent a modest change in terms of new knowledge, but a dramatic change in terms of the direction that theorists are now pursuing. By downplaying the possibility that there is such a thing as universal language, theorists are admitting that they are beginning to accept a somewhat relativist view of thinking processes. The effects of this change on the direction that communication research will be obliged to take as a result, are quite far reaching as will be shown later.

Much of the discussion around the influence of language, culture and thought has been applied to the foreign language learning and teaching context, and this provides a useful backdrop for presenting the issues here as it can be shown how each entity develops.

In order to learn a foreign language, one must also learn about the context, or culture, in which it is used to be able to make much sense of how and why it is used in ways which differ from one's native language. Language and culture both influence one's thoughts on the new language and culture.

However, although they mutually influence each other, and cannot realistically be separated, these three entities; language, culture and thought bring entirely different challenges to the second or foreign language learner. Learning a new language involves moving from a place where the new language is entirely unintelligible, to where it is eventually completely, or nearly completely understandable. Thus, although the learner knows one language already, and knows what a language is, he or she must start with no understanding of the new language at all (apart from cognates if the languages should share any).

This is not the case with culture. A lot more of culture can be intuited from one's own culture. Through the advances made in mass- and multi-media, many people have already become more aware of other cultures and may experience them, albeit passively and vicariously, prior to direct contact leaving little or no "shock" at all when visiting such host cultures. Many modern Western cultures have many more similarities than differences. Geography is becoming less important as a criteria for categorizing cultures as can be seen over Japan's ambiguous identity as both an Asian and a Western country.

Thought has been seen as quite different from both of the above. The ability to think is a universal human trait. Although it may be influenced by language and culture, thinking has, until now, not been seen as essentially differing from culture to culture. Learning a new language involves learning a new code for essentially very similar human ideas, and learning

a new culture involves learning about the values and interests of the people who speak this new language. Learning a new language and its attendant culture does entail learning a new world view and a new way of perceiving reality, yet one does not have to learn how to think all over again. Thus the contents of the thoughts may be new, and their relative value and importance may be novel, yet the thinking process itself has been seen as more or less the same. Even Brown (1980, 1987) in his revised edition repeats his earlier comments and alludes to some sort of universal thinking process when he states that being able to think in the new language may require virtually native-like command of a completely different language, but there does not seem to be an attendant need to master a completely new set of mental processes.

For a person to develop his or her cognitive abilities, language and culture are indispensable—yet current thinking still seems to suggest that all human languages and cultures more or less serve this purpose in very similar ways, with more or less the same results. While certain cultures and languages may lend themselves more to certain ideas and processes than others, these differences are not seen as producing marked differences in cognitive abilities.

RESEARCH IN COGNITIVE DEVELOPMENT

Many of the ideas in the discussion that support the view that there is some sort of universal cognitive development process and product can be traced back to the groundbreaking work of Piaget (1954, 1963). In his highly influential theory of cognitive development, there are four stages; sensorimotor, preoperational, concrete operational and formal operational. However, while many scientists agree that children go through the kinds of changes he describes, they are less confident now that there are four distinct stages (Gelman & Baillargeon, 1983). Children do not in fact display the kinds of consistency in problem solving techniques that a stage model would suggest. For example, an expert 9-year-old chess player may think abstractly about chess moves, while a novice 20-year-old player may have to resort to more concrete strategies to plan and remember moves (Siegler, 1991). Thus, the stages that Piaget outlined are not necessarily natural for all children, even if they belong to the same cultural group. It has been shown that indeed these stages reflect to some extent the expectations and activities of the children's culture (Laboratory of Comparative Human Cognition, 1983).

It is quite possible that children in Western cultures master scientific thinking and formal operations because this is the kind of thinking required in Western schools as even basic Piagetian-type concrete operations such as classification may not be as basic to people of other cultures. For example, when African subjects from among the Kpelle people were asked to sort 20 objects, they created groups that made sense to them. They put a hoe with a potato, and a knife with an orange. The experimenter tried, but could not get the Kpelle to change their categories. They said this is how a wise person would do it. Eventually, in frustration, the experimenter asked, "Well, how would a fool do it?" Immediately the subjects created the four neat classification piles the experimenter had expected—food, tools and so on (Rogoff & Morelli, 1989).

Other researchers have shown that cultures which value cooperation and sharing teach these skills early, whereas cultures that encourage competition nurture these abilities in their children (Bakerman et al., 1990; Childs & Greenfield, 1982).

As the rigidity of Piaget's theory comes more and more into question, other more ambitious studies have sought to discover cultural differences in the ways that individuals typically process information—their preferred cognitive style of learning. For example, results from some research suggest that Mexican Americans tend to be field dependent, preferring holistic, concrete, social approaches to learning. Because being field independent is related to achievement in mathematics, the tendency to be field dependent may interfere with their performance in mathematics if it is taught in the usual abstract analytical style (Buenning & Tollefson, 1987). Other researchers have suggested that Hispanic-American students are more oriented towards family and group loyalty and are less individualistic. This may mean that Hispanic-American students prefer cooperative activities and dislike being made to compete with fellow students (Garcia, 1992; Vasquez, 1990).

Bennet (1995) summarizes research that suggests the learning styles of African Americans may be inconsistent with teaching approaches in most American schools. Some of the characteristics of this learning style are a visual/global rather than a verbal/analytic approach; a preference for reasoning by inference rather than formal logic; a focus on people and relationships; a preference for energetic involvement in several activities simultaneously rather than routine, step-by-step learning; and a greater dependence on nonverbal communication.

Native Americans also appear to have a more global, visual style of learning. For example, Navajo students prefer hearing a story all the way through to the end before discussing parts of the story. Teachers who stop to ask questions seem odd to these students and interrupt the learning process (Tharp, 1989). Also, these students sometimes show strong preferences for learning privately, through trial and error, rather than having their mistakes made public (Vasquez, 1990).

While some of these studies have been questioned over issues of validity, their findings have not been reversed. Obviously it would be unwise to generalize these findings indiscriminately to each and every member of their particular cultural group, and some differences between cultural groups could be expected to be overshadowed by differences between individuals within the same cultural groups. However, taken together, the evidence indicates that culture influences cognitive development to a far greater extent than previously believed possible.

The existence of some sort of universal human cognitive development is also the basic assumption made by Acton & de Felix (1986) where they draw direct parallels between three models of cognitive development and the process of acculturation. They suggest the existence of a four stage process of acculturation, based upon the work of several other theorists. The four stages are Tourist, Survivor, Immigrant and Citizen. They argue that there is a direct parallel between each stage of acculturation and the stages of development of three models of cognitive development as outlined in the table below:

<i>Model</i>	<i>Tourist (1)</i>	<i>Survivor (2)</i>	<i>Immigrant (3)</i>	<i>Citizen (4)</i>
Cummins	BICS	BICS	CALPS	CALPS
Wong-Fillmore	Novice	Advanced beginner	Competent	Proficient
Ausubel	Exploration	Manipulation	Acquisition of knowledge	Ego enhancement

Diagram 1 Three Key Models of Cognitive Development. [From William R. Acton and Judith W. de Felix, *Acculturation and Mind*, in J. M. Valdes (Ed.), *Culture bound*. Cambridge: Cambridge University Press, 1986, p.25.]

Although each of these models of cognitive development differs in detail from the Piagetian model, the one thing they all share is the implied belief that they each represent, in their own way, a universal phenomenon. Each view tends to see the individual constructing an understanding of the world according to some kind of innate plan or program that is shared by all humans.

This view was challenged many years ago by a young Russian psychologist, Vygotsky (1978, 1986), who suggested that cognitive development depends much more on the people in the child's world. He believed that children's knowledge, ideas, attitudes, and values develop through interaction with others, and thus that culture and language play very important roles in cognitive development.

For Vygotsky, one example of how language plays an important role in the development of the child can be seen in the way they use private language—speaking to themselves. Whereas Piaget saw this in a negative light as evidence of immaturity, Vygotsky saw this as representing externalized thinking that aids in the development of problem solving abilities and general cognitive development. Vygotsky placed a great deal of emphasis on the importance of language in cognitive development and reasoned that humans use language to mediate the relationship between human experience and mental activity.

Research supports Vygotsky's ideas (Bivens & Berk, 1990; Kohlberg, Yaeger & Hjertholm, 1969). When children are confused or having difficulties or making mistakes, they tend to use more private speech, spoken out loud to themselves. And inner speech not only helps with solving problems, it also allows for a greater ability to regulate behavior. As children get older, they tend to whisper the words to themselves, and finally internalize them as thoughts (Bee, 1992). These findings have resulted in several developments in education. Perhaps the most obvious is the development of cognitive self-instruction where students are taught to use self-talk to guide learning (Meichenbaum, 1977).

Based on Vygotsky's ideas researchers have shown that language also plays a very important part in the child's cognitive development as a medium for interaction with more capable members of the child's culture (Wood, Bruner & Ross, 1976). These people serve as guides and teachers, providing the information and support necessary for the child to grow intellectually. This has been called scaffolding or assisted learning. Social interaction and

assistance are seen not only as teaching methods, but also as the origins of higher mental processes such as problem solving.

Assisted learning also suggests that there is an optimal “space” around the child where the child is able to grow and learn best. Trying to demonstrate knowledge or skill too far away from the child’s present capabilities results in less than optimal learning. This has come to be known as the zone of proximal development where the child is unable to solve a problem alone, but can be successful under adult guidance or in collaboration with a more advanced peer (Wertsch, 1991).

The evidence demonstrates that language and culture directly influence and shape cognitive development. In Western cultures, culture influences thought largely through language. However, in some cultures, observing a skilled performance, not talking about it, guides the child’s learning (Rogoff, 1990). Even the relative influence of culture and language on thought is culturally relative!

CONCLUSION

What all these findings illustrate is that although cognitive development is a universal phenomenon in itself, it is much more influenced from without through language and culture than previously thought, resulting in greater differences in cognitive processing than previously thought. It now makes sense to start looking for and identifying cognitive processes according to their cultural/linguistic grouping. While interaction in all cultures and in all languages fosters cognitive development, the different cognitive processes that are developed have been shown to be significantly varied. If cognitive development closely followed the kind of inherent plan that Piagetian-type thinking suggests, then people from all kinds of cultural backgrounds, speaking different languages would still share very similar thinking processes. However, research shows that this is not the case. The new evidence shows some of the differences in such thinking processes within different language/culture groups, and how such thinking processes are shaped by the local language and culture.

Previously it was thought that cognitive differences were sufficiently insignificant to warrant widespread use of models of cognitive processes developed in the West. Now, however, it is clear that such confidence is misplaced. What remains unknown, is just how misplaced this confidence is. Obviously all humans share the ability for cognitive processing, and obviously there is a great deal of overlap between cultures and languages in cognitive processes—yet the question remains: How much? How much are we similar? How much are we different?

One view that is reinforced—indeed even developed—by the new evidence is the notion that language, culture, and thought are inextricably intertwined to the point that they serve to define one another. However, it must also be acknowledged that their collective and separate influence on the communication process is now far more complex.

While practitioners in the past have sought to find the solutions to miscommunication

within the entities of language and culture, it now appears that the area of thought deserves more attention than it has previously received. Communication assumes a common ground upon which mutual understanding can take place. Although it only makes limited sense to separate one of the three entities from the three-way continuum, it can be instructive for our purposes here to do so. Of the three—language, culture and thought—the latter has by default played the role of the assumed common ground on the basis of the prevailing belief that regardless of the different routes taken, we all end up with rather similar cognitive faculties.

Obviously this has not been shown to be completely false. People from different cultures, speaking different languages do share a great deal of communication and understanding. What has been shown, is that the bases for this shared communication are not as similar as was once thought. While the extent of the differences that exist are not yet known, when doubts are raised about just how much we can assume people from different cultural/linguistic groups to share similar cognitive and affective experiences, we must also necessarily raise fundamental questions about the most basic assumptions of the entire communication process—questions about the extent of the existence of a common experience that makes mutual understanding possible.

On the one hand this can be discouraging as the elements and issues surrounding communication—especially intercultural communication—are now much more complex, perhaps making it even more difficult for practitioners to deal effectively with such an array of variables. On the other hand, this can be encouraging as it sheds more light on why some communication in the international arena that appears to allow for differences in culture and language, breaks down in puzzling miscommunication. Two sides may appear to understand each other because the communication makes sense to each of them, when in fact what it is that makes sense to one side may not make sense in the same way to the other side. What was once thought of as the common ground for universal understanding, now needs to be negotiated and allowed for as well.

REFERENCES

- Acton, W. R., & J. W. de Felix. (1986). Acculturation and mind. In J. M. Valdes (Ed.), *Culture bound*. Cambridge: Cambridge University Press.
- Bakerman, R., L. B. Adamson, M. Koner, & R. G. Barr. (1990). !Kung infancy: The social context of object exploration. *Child Development*, 61, 794-809.
- Bee, H. (1992). *The developing child* (6th ed.). New York: Harper and Row.
- Bennet, C. I. (1995). *Comprehensive multicultural education: Theory and practice* (3rd ed.). Boston: Allyn and Bacon.
- Bivens, J. A., & L. E. Berk. (1990). A longitudinal study of elementary school children's private speech. *Merrill-Palmer Quarterly*, 36, 443-463.
- Brown, H. D. (1980). *Principles of language learning and teaching*. Englewood Cliffs: Prentice-Hall, Inc.
- Brown, H. D. (1987). *Principles of language learning and teaching* (2nd ed.). Englewood Cliffs: Prentice-Hall, Inc.
- Buenning, M., & N. Tollefson. (1987). The cultural gap hypothesis as an explanation for the achievement

- patterns of Mexican-Americans. *Psychology in the Schools*, 14, 264-271.
- Childs, C. P., & P. M. Greenfield. (1982). Informal modes of learning and teaching. In N. Warren (Ed.), *Advances in cross-cultural psychology* (pp. 269-316). London: Academic Press.
- Garcia, E. E. (1992). "Hispanic" children: Theoretical, empirical, and related policy issues. *Educational Psychology Review*, 4, 69-94.
- Gelman, R., & R. Baillargeon. (1983). A review of some Piagetian concepts. In P. Mussen (Ed.), *Carmichael's manual of child psychology*. New York: Wiley.
- Kohlberg, L., J. Yaeger, & E. Hjertholm. (1969). Private speech: Four studies and a review of theories. *Child Development*, 39, 691-736.
- Laboratory of Comparative Human Cognition (1983). Culture and cognitive development. In E. Kessen (Ed.), *Handbook of child psychology, Vol. 1. History, theory, and methods* (4th ed., pp 295-356). New York: Wiley.
- Meichenbaum, D. (1977). *Cognitive behavior modification: An integral approach*. New York: Plenum.
- Piaget, J. (1954). *The construction of reality in the child* (M. Cook, Trans.). New York: Basic Books.
- Piaget, J. (1963). *Origins of intelligence in children*. New York: Norton.
- Rogoff, B. (1990). *Apprenticeship in thinking: Cognitive development in social context*. New York: Oxford University Press.
- Rogoff, B. & G. Morelli. (1989). Perspectives on children's development from cultural psychology. *American Psychologist*, 44, 343-348.
- Siegler, R. S. (1991). *Children's thinking* (2nd ed.). Englewood Cliffs: Prentice-Hall.
- Tharp, R. G. (1989). Psychocultural variables and constants: Effects on teaching and learning in schools. *American Psychologist*, 44, 349-359.
- Valdes, J. M. (Ed.). (1986). *Culture Bound—Bridging the cultural gap in language teaching*. Cambridge: Cambridge University Press.
- Vasquez (1990). Teaching to the distinctive traits of minority students. *The Clearing House*, 63, 299-304.
- Vygotsky, L. S. (1978). *Mind in society: The development of higher mental processes*. Cambridge, MA: Harvard University Press.
- Vygotsky, L. S. (1986). *Thought and language*. Cambridge, MA: MIT Press.
- Wertsch, J. V. (1991). *Voices of the mind: A sociocultural approach to mediated action*. Cambridge, MA: Harvard University Press.
- Wood, D., J. Bruner, & S. Ross. (1976). The role of tutoring in problem solving. *British Journal of Psychology*, 66, 181-191.

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