

LINGUISTIC RELATIVITY AND SPATIAL LANGUAGE

Giovanni Bennardo

Department of Anthropology, Northern Illinois University, USA

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Summary

Rooted in the work of Boas, Sapir, and Whorf, the suggestion that the specificity (e.g., lexical, syntactic, and semantic) of the language one speaks influences the way in which one conceptualizes the world or one's thought goes under the name of linguistic relativity (LR). In the 1970s, LR was seriously undermined by a number of research findings that indicated how language was strongly constrained by mental processes associated with perception. Put to dust on the most remote shelf of scholarly discourse, LR studies found a new Renaissance in the 1990s. Mostly due to scholars investigating the domain of space and spatial relationships (among others) extraordinary cross-linguistic findings have generated an interest in LR in many disciplines including anthropology, linguistics, psychology, and cognitive science. The works on the acquisition of spatial language by Slobin and Bowerman, two psycholinguists, but especially that of Levinson, a cognitive anthropologist, on frames of reference as mentally and linguistically represented in a number of languages/cultures represent a few as well as the most representative examples. After discussing and also challenging some assumptions behind these proposals, an approach to cognition (radically intentional) is suggested that can explain the various findings without appealing to LR. This work intends to be a contribution to the fascinating discussion about linguistic variability, cultural diversity, and cognitive architecture especially initiated by and embodied in the work of Levinson.

1. Introduction

Space is an ontological universal, that is, conceptualizing and talking about spatial

relationships is a universal characteristic of human beings. Humans need to conceptualize the spatiality of their environment, that is, mentally represent their surroundings as a well defined space that contains a variety of objects standing in particular spatial relationships to one another. Without this capacity we would neither be able to move in our environment nor locate objects in it. It is also crucial for all humans to be able to communicate linguistically about this space and these spatial relationships. We all do this so efficiently and effortlessly that we are, most of the time, unaware of the complex mental and linguistic operations we use in this process.

However, there are specific occasions when we do become aware of the complexity of the task. One of these occasions is communicating long-distance within one language community. Either in writing or on the phone, for example, the whole process of talking about location or movement of objects in space requires our attention in a way that is not done when we talk in a face-to-face encounter. In long-distance communication we become aware, among other things, of perspective-taking. When reporting on the phone or in writing about the position of an object in a room, for instance a chair, we cannot simply state its location in relation to us because the addressee cannot see us. We must indicate a fixed point of reference. In our case it could be the room door. From there, further indications can be supplied to identify the position of the object. 'The chair is to the right of the door from which you enter the room' could be an example of an almost adequate description (ambiguity may still result because 'right' can be interpreted as that of the person looking at the door from inside the room or that of the person entering). All of us make, and still occasionally produce, descriptions of locations that are utterly confusing for our addressee. However, it usually does not take long to realize how inaccurate we were, and search for a more appropriate solution.

Other occasions in which we become aware of the complexity of the task are in cross-linguistic encounters. In these situations the difficulty lies in the fact that languages distribute spatial descriptions over different parts of speech. For example, where some languages rely mostly on prepositions, others use mostly nouns, while still others put most of the load on verbs. Habituation due to extensive use of the solution intrinsic to our native language complicates the linguistic encoding of our spatial descriptions (either about location or movement) in these situations.

Cross-linguistic occasions are a part of cross-cultural encounters. There are clear differences between the two types of differences these events generate. A linguistic difference may be described as distributional (spatial descriptions distributed differently over parts of speech), a cultural difference is the frequency, quality, and content of the spatial descriptions (not its linguistic form) used. When, how, and which spatial descriptions one decides to express (linguistically and otherwise) and use more frequently among the possible ones that are universally available is a cultural decision.

Evidence is being accumulated by research conducted in a variety of cross-linguistic and cross-cultural contexts all over the world about the peculiar preferences of some languages and cultures to express spatial relationships in habitual modalities. In other words, some speaking communities, culturally defined, show mental and linguistic preferences in describing spatial relationships. Congruent findings between these two representation modalities (mental and linguistic) have revitalized the proposal of a

possible role of language in the shaping of thought or cognition. This proposal goes under the name of linguistic relativity and is rooted in the work of Humboldt at the beginning of the 19th century and that of Boas, Sapir, and especially Whorf in the 20th century.

In this chapter the author first briefly outlines the genesis and history of the linguistic relativity (LR) paradigm. Then, he discusses some recent research projects on spatial language that make direct appeal to linguistic relativity in their conclusions. These projects span fields like anthropology, linguistics, psychology, and cognitive science. Finally, the author discusses the merit of such findings in the light of a different theoretical stand on the issue of the relationship between language and thought/cognition.

2. The Linguistic Relativity Paradigm: Genesis and Recent History

In the first half of the 20th century, Whorf introduced the expression “linguistic relativity principle” and defined it as the fact that speakers guided by the grammar of their languages make different types of observation of the world, thus arriving at different views of that same world. A student of Sapir and a Boas admirer, Whorf is standing tall on the shoulders of his teachers and the tradition—at least a century old—that they represent (going back minimally to Humboldt).

The close attention paid to Native American languages initiated by Boas at the beginning of the 20th century had resulted in a series of linguistic discoveries. Fundamentally different grammatical organizations were recorded and in a clear attempt to affirm their inner validity an excessive weight was put on the differences with the more familiar Indo-European languages. Sapir’s deep knowledge of a variety of languages led him to suggest the isomorphism between the ontology expressed in language and a ‘possible’ mental ontology. Language carves ‘a’ reality out of many possible ones. Linguistic practices affect thought and the construction of a world view. This, however, does not entail that language affects culture; vocabulary is the only part of language that indexes the culture of a people.

In line with Boas and Sapir, Whorf also distinguishes between “covert” and “overt” categories that characterize two different classificatory styles implicit in language. An ‘overt’ category is always explicitly marked in the language. For example, number is always expressed in English, either by a plural marker or by the form of the verb, or by the use of articles. A ‘covert’ category is not always expressed. For example, intransitivity of English verbs becomes transparent only when we realize that they cannot be used in certain specific forms, i.e. they lack the passive participle. The covert categories may interact with other mental activities and consequently contribute to the construction of different views of the world.

The unique interaction between covert and overt categories in a language provides an insight into a specific world view, a specific way of thinking about the world. The latter, for Whorf specifically, is also conducive to generate behavioral patterns. The type of thinking that he is addressing is summarized in the concept of “habitual thought.” That is, what an ordinary person carries with him/her that is not specifically linguistic, not

cultural, but a “thought world” that reflects the influence (“analogical and suggestive”) of language on thought.

The ideas outlined above came to be erroneously labeled as the ‘Sapir-Whorf hypothesis.’ In reality neither Sapir nor Whorf ever presented or discussed a distinct ‘hypothesis.’ Their ideas about the relationship between language, mind, and culture could be better characterized as a set of assumptions or axioms that may generate hypotheses. These could eventually be supported or not supported by a variety of investigations. It is for this reason that the author has decided to call their proposals the LR ‘paradigm’ in a Kuhnian sense.

The LR paradigm generated a number of research projects whose focus was (contrary to most of Sapir's and Whorf's own work) on lexical domains like color, ethnobotany, and folkbiology. The results of these projects, however, while supportive at the beginning, ended up undermining substantial tenets of the original assumptions. For example, one of the major findings of the world wide survey conducted by Berlin and Kay about color terminology was that the acquisition of new linguistic terms covering the color spectrum is heavily constrained by universal characteristics of the physiology of vision. Thus, it is not language (color terms) that affects thought, but language that is constrained by mental processes directly linked to perception—visual perception in this case.

Establishing a relationship between universal characteristics of human vision and language still leaves open the way to speculations about the psychological ‘space’ between these two realms. After all, Boas, Sapir, and Whorf assumed universal characteristics (including physiological processes) of the human mind and suggested that the form of that space is being influenced by language. The research on ethnobotany and folkbiology, are an attempt to understand and describe the nature of that psychological ‘space.’ All languages have a set of terms used to categorize the botanical world. Despite differences in the number of terms and types of environments in which languages are spoken, the taxonomic arrangement of these terms follows a universal pattern. Similarly in folkbiology a universal ‘underlying hidden nature’ is attributed to living things that separates them from technologically produced objects of any sort.

The LR paradigm seemed to have exhausted itself and scholars appeared to have shelved it to dust in the remotest room of their discourses. The work of Lucy on the cross-linguistic variation of the semantic of matter in English and Yucatec Maya resuscitated the whole paradigm and brought it back to the forefront of anthropology, linguistics, and cognitive science (a symposium of the Cognitive Science Meeting in Chicago in August 2004 was devoted to LR). Similar relevance in this process is to be assigned to the work of Levinson and his research group at the Max-Planck Institute in Nijmegen, The Netherlands. His research project is substantially contributing to the revival of Whorfian ideas in the contemporary scientific discourse, and it is doing so by focusing on space and spatial relationships. Ironically, Whorf himself had disregarded space as a category possibly “apprehended” differently by individuals speaking different languages

To these two champions of the current LR revival, need to be added a number of other

scholars from various disciplines. The author limits his discussion to only three authors, Slobin and Bowerman, two psycholinguists, and Levinson himself (a preliminary discussion of these authors appeared in another publication of mine). Their research is unified by a common theme: it is about space, spatial relationships, and spatial language. Besides, the bulk of their suggestions and contributions witness to the current revived discussion about the relationship between (spatial) language and thought.

3. The Linguistic Relativity Paradigm and Spatial Language

Before looking at the three scholars mentioned above, the present author wants to point out that within the LR paradigm a distinction is now made between a ‘strong’ relativism and a ‘weak’ one. Bold suggestions about language ‘straitjacketing’ thought and world view are no longer made (i.e., ‘strong’ relativism). However, carefully constructed studies are conducted in which forms of thought habituation are found to correlate with ontological choices expressed by linguistic systems (i.e., ‘weak’ relativism). One of the most investigated ontological domains is that of space, including spatial relationships, as it is realized in language. A variety of new findings have revitalized the LR paradigm.

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Biographical Sketch

Giovanni Bennardo is an associate professor of linguistic anthropology and cognitive science at Northern Illinois University. He earned his Ph.D. in anthropology (linguistic and cognitive) from the University of Illinois at Urbana-Champaign in 1996. His research and publications examine the relationship between language, culture, and the mind. Specifically, he is interested in cross-cultural semantics, spatial cognition, and cross-domain interactions. He has conducted research in the Kingdom of Tonga, Polynesia. Supported by a NSF grant, he is currently investigating a Tongan cultural model as instantiated in various conceptual realms such as kinship, social relationships, and political choices.