

LANGUAGE, COGNITION AND THOUGHT

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Summary

The relationship between language and thought, including the possibility either that the relationship might be mediated by culture or that the relationship itself might mediate the relationship of either language or thought to culture, has provided a rich topic for anthropological, linguistic, and psychological investigation. Language, like culture, is a collectively defined and held system, but, unlike culture, is tightly structured. “Thought” refers in a general way to human mental activity and to the conceptual products of that activity; thought can be organized in systems that are shared, but the activity itself is individual. “Cognition” refers to particular systems of thought, where language can be seen as one such system. The relationship one sees between language and thought depends on whether one sees language as a special, autonomous mental system vs. as a particular product of general cognitive functioning (or as some mix of the two). In the former case the issue becomes the degree to which language directly shapes non-linguistic thought. In the latter case language forms only a subset of thought. Important issues concern the degree to which language is seen as innate vs. learned, the manner of its learning, the role of social construction and pragmatic experience in its learning. The scholars most responsible for our modern questions concerning the language/thought relationship are Whorf and Sapir; much research has flowed from the “Whorfian Hypothesis” that language shapes thought including our perceptions of “reality”. Impor-

tant research issues include the social nature of language, the degree to which language is understood as deeply embedded in the individual psyche vs. a more surface tool available for use as knowledge allows and the situation suggests, and what exactly can we deduce about the thought (including cultural or collective thought) of others from language.

1. Introduction and Basic Concepts

1.1. Language

Language is a system of communication common to all human societies and cultures and used by (almost) all humans, but not seen in anything like a complete form in any non-human species or society. Human language is a productive system for general purpose communication that children learn most of between the ages of three and six. Human language takes the form of a great variety of specific languages, most of which are mutually unintelligible, but which all seem composed of similar kinds of elements joined in similar ways—even if there is much debate concerning what these elements and ways are. There exists also considerable debate concerning what animals, if any, can learn how much of human language and/or what parts of it—which relates to arguments concerning how much of human language and/or which parts of it represent species specific human adaptations. Human use is of one or another specific language (vs. of language in general), and is split into speech production and speech understanding, and both sides operate in reference to the abstract system (regularities, rules, patterns, or whatever) of the given language—a distinction made early on by Saussure (the French/Swiss founder of modern linguistics) as the contrast between *parole* and *langue*. In Saussure’s system, the system of language is collective—that is, a collectively created, held, and managed entity, while speech is individual—in the sense that individual speakers use the resources of language individually to construct the specific speech acts which make up actual communication.

(Chomsky’s distinction between “competence” and “performance” is not unrelated to Saussure’s *Langue/Parole* contrast, but, on the one hand, Chomsky’s version builds in some strong views of linguistic structure that Saussure’s does not, while, on the other hand, Saussure’s *langue* is a social or collective entity where Chomsky’s competence seems clearly individual. Our more general distinction between “code” and “message” is also relevant, except that the language code is not defined overtly—even if it be now described by linguists and school teachers; language is learned without any reference to external definitions in any meta language. Learners have to infer the code directly from the patterning of messages they experience and from errors that more knowledgeable speakers catch them in; such learning is always to some degree imperfect (in the sense of learners exactly replicating their models), and so there always exists some variation within speech communities. Repeated patterns of imperfect learning represent a major vehicle for language change.)

The meaningful elements of language are composed of linked, mutually defining (in Saussure’s terms) “signifiers” (made up of “sound images”) and “signifieds” (made up of linguistic “concepts”), where linguistic concepts are distinguished from one another by contrasting sound images at the same time as contrasting sound images are distin-

guished by the different concepts that they signal. The relationship between specific signifiers and specific signifieds varies greatly from one language to the next, and the one is largely unpredictable from the other—and, hence, the relationship is spoken of as “arbitrary”. The minimal autonomous meaningful element of language is the word, the minimal meaningful element of any sort is called a “morpheme”, while the minimal sound unit that distinguishes one meaningful unit from another is called a phoneme. The phoneme (or sound image) is a mental construct—since different languages can group the same set of raw sounds into different sets of contrasting phonemes. The system of oppositions and privileges of co-occurrence of phonemes (however theoretically understood) is called “the phonological system” or “phonology”. The ways in which meaningful units can be combined into larger units and the classifications that underlie such combinations are spoken of as “the syntactic system” or “syntax” (or “grammar”), the subset of syntax that relates morphemes to words is called “morphology”. The system of language is normally considered to have phonological (sound system), syntactic (including morphological) (system of grammar including word structure), and semantic (meaning—both as opposition or contrast, and as reference) components. As Saussure (as well as Sapir and others) noted, language is a mental phenomenon—and quite distinct from the physical sounds that make up its signifiers or from the objects, actions, and so forth that are referenced by the concepts that form its signifieds. The system of language should also be distinguished from the pragmatic understandings that underlie its use and the speech acts via which it is not only applied but also colored and given different kinds of communicative force.

1.2. Thought

“Thought” is not typically considered to be a technical term. It refers in a general way to human mental activity and the conceptual products of that mental activity. Such mental activity has sometimes been taken to include emotion and “conation” (action, volition, striving—the will to do something) as well as cognition. In this sense of thought as mental activity, of course, language represents a particular system of thought—and so our comparison is really between language and other parts or kinds of thought. Thought *per se* seems necessarily and exclusively individual.

“Cognition” is (in the American Heritage Dictionary) “1. The mental process or faculty of knowing, including aspects such as awareness, perception, reasoning, and judgment. 2. That which comes to be known, as through perception, reasoning, or intuition; knowledge.”, which sounds a lot like “thought”. For present purposes we can leave “thought” as the general and general purpose non-technical term, and take “cognition” as a technical term referring to theoretically delineated (described, defined) systems of thought. Then, as described, language represents one cognitive system, and the relationship between language and thought resolves into either the relationship of language to other cognitive systems or the relationship of the specific system of language to more general cognitive properties that characterize cognition in general. Directly functioning cognitive systems exist in individual minds, and so are individual, but some of these individual systems can be understood in turn as individual copies or representations of presumed, putative, or posited collective systems (or “collective representations”). That is, while there exists no such thing as literally collective thought, there can exist individual understandings of what the individuals in question (in some important sense, or

course, incorrectly) perceive and understand as collective thought. (We do seem not uncommonly—in a kind of anthropomorphism—to see social collectivities as having thoughts, understandings, motives and goals.)

1.3. Language and Thought

The relationship between language and thought has been seen in a couple of alternative ways. One basic question concerns the degree to which language is a special, autonomous mental system vs. a particular product of general cognitive functioning. A separate but related question concerns whether or not (or the degree to which) language directly shapes non-linguistic thought. The two questions are linked because the latter (language-shaping-thought) view seems to presume some autonomous existence of language which is more basic than the kinds of thought involved. The latter (tool) view presumably can exist with either view of language. So, the question boils down to whether a) language is an independent mental entity (or “module”) that contributes to the actual forming of thought, or b) language constitutes a tool which speakers can (to varying degrees does) make use of in the process of thought and/or to convey thought. The latter view implies that, where there exists some reason, thought can take on a form or have some content that is inconsistent with the form or content of language, while the former does not.

In the language-forms-thought view language has to exist as some autonomous mental entity or module independent of the thought it helps form, while in the thought-uses-language-as-a-tool view language is free to be either an independent entity/module or a structured subset of thought.

In b) language (via its realization in speech) is seen as a tool—in particular, a social tool—for thinking and communicating about stuff (situations, actions, ideas, analyses, analytic methods, etc.), but not an intrinsic part of thinking and communicating apparatus. The tool can be and often is used for communication with oneself for purposes of memory, reasoning, or whatever, as in Vygotsky’s “inner speech”. But the tool remains most strongly constrained by its social role. The strongly structured and many ways autonomous nature of language is seen, here, as a consequence of its function and its social nature. As a general purpose communication medium (whether with others or with oneself via memory) that is basic to members of a community, language has to be easily learned (so little kids can quickly learn its basics and not take too much longer to learn its complexities) and productive (so that speakers can easily (quickly and with minimal self-conscious thought) apply existing linguistic resources to novel communications—in a way that hearers will equally easily understand—at least with some desired or needed degree of accuracy). The flexible and effective communication need implies a fairly tight, and tightly shared, organizational structure. Spoken language and its structure are in part constrained by its linear temporal form, while the signed languages of the deaf make use of spatial as temporal relations; but both kinds of language exclude the kinds of parallel or “polyphonous” structure, or gestalt imagery that can organize other kinds or modes of thought. Views of the status of apparent linguistic structure range from “innate” and distinct (a language-specific part of the human biological make-up) through “constructed” (something each person builds up on the basis of innate predispositions—whether the predispositions be general purpose cognitive ones or ones

specific to language) to “epiphenomenal” (not really a factor in human language processing, but only a summary by linguists of patterns that recur because of situational or learning similarities across events and people). Since in normal learning in most cultures over most of human history language (certainly its underlying structure [what enables its rich productivity])—as opposed to its surface forms) has not been overtly described or taught, but, rather, learned by kids (and adult immigrants) on the fly, the structure has to be of a sort that people are predisposed to pick up and that can be built up via the learner’s feedback with the speech community. Language thus seems—at least in part—to require a kind of “constructivist” approach.

As a socially constructed and maintained system of collective cognition (a “collective representation” in Durkheim’s earlier phrasing) language is a socially distributed system. In part language consists of what is shared across members of one or another speech community, but not totally—since not everyone knows everything. Human communities show some of the same “division of labor” that is seen (“elsewhere”—depending on how one sees the relationship between language and culture) in culture and society (including economics, politics, etc.). We see this especially with vocabulary—which relates a lot to the things people do and the other people they do them with—but also with the phonological and grammatical variations which characterize (and sometimes mark) different sub-communities. Language does not consist of what is any single person’s mind, and no single person possesses the total or complete system.

Even in a), one should note, it can only be the elements that are common across all human languages that are automatically or innately built into the language module. The rest—what it is that makes English different from Ojibwa or Finnish or ...—still has to be learned, and learned quickly. There exists no evidence of a biological/innate programming for one language (our “native language”, if you will) over any other—as the grandchildren of immigrants, conquerors, and traders the world over make too clear! That is, approaches based on innatism or modularity still have to wrestle with the sharing and learning problems.

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Biographical Sketch

David B. Kronenfeld is a Professor of Anthropology and Chair of the Interdisciplinary Program in Lin-

guistics at the University of California's Riverside campus. His research interests include kinship and social organization, the semantics of word meanings, and "cultural models". His current research focus is on the cultural forms and cognitive processes that enable culture to operate as a system of distributed cognition; the focus includes a concern with collectively created, constructed, held, and adapted systems of knowledge, with the groups in which such knowledge inheres, with the relationships among such groups including their overlapping membership, and with the relationship of individuals to these groups. His *Plastic Glasses and Church Fathers* (1995 Oxford University Press) presents his semantic work and describes his approach to collective knowledge. His research has been presented in articles in *Language*, *American Anthropologist*, *American Ethnologist*, *JRAI/Man*, *Anthropos*, *Journal of Pragmatics*, and *L'Homme*, among others.