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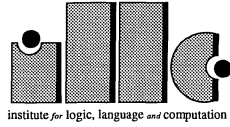
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# Metaphor and Literacy

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## Abstract

The frequent occurrence of apparently metaphorical utterances in nonliterate societies poses interesting problems for modern theories of metaphor: The view of metaphor as a violation of semantic rules or as an exploitation of pragmatic principles runs counter to the fact that nonliterate do not think of such utterances as odd or deviant in context, and hardly base their judgments on abstract, decontextualized principles. Lakoff's theory of cognitive semantics at first sight seems to offer an alternative, but it turns out to share a number of crucial assumptions with the approaches that it rejects. It also ignores sociocultural variables such as literacy and schooling. An alternative approach, based on Vygotsky's notion of complex concepts, is then outlined.

Ethnographic descriptions often report metaphorical utterances that appear as bizarre as they sound poetical; to the peoples uttering them, however, they do not seem to be very odd or deviant. The widespread occurrence of such metaphors, and their lack of perceived oddity, present difficulties to many existing theories of metaphor, most of which view metaphor as derivative from literal language, and as based on the inappropriateness of the utterance in its literal interpretation. They have also led some romantically inclined authors like Rousseau and Vico to view 'primitive man' as a poet, and to think of metaphor rather than literal language as lying at the origin of language in general. A modern adherent of such a view is perhaps George Lakoff, who thinks of linguistic metaphor as a manifestation of a basic cognitive capacity to 'see one things in terms of another'. But a notion of metaphor as involving a mapping from one conceptual domain to another already seems to presuppose a literal domain practically by definition, so it is not immediately clear how such a romantic view could be coherently formulated. Here, I would therefore like to look at the status of metaphor in such supposedly primitive societies, and especially at its relation to classification and literal meaning.

Let me start with some examples, to begin with what is probably the most famous metaphor in anthropology: the remark 'we are parrots' of the Brazilian Bororo Indians. This sentence is uttered in rituals where Bororo males adorn themselves with feathers of the bird in question. Even there, it is asserted only of males; outside of this specific context, the Bororo seem far less inclined to assent to it, let alone utter it spontaneously (Crocker 1985: 38). To Karl von den Steinen, the ethnologist who first noted this usage, and to e.g. Durkheim & Mauss (1960), it suggested that the 'primitive' Bororo could not distinguish between men and animals, and more in general had difficulties in categorizing the world around them. It seems rather implausible, however, to conclude that some people do not at all impose any ordering on the world around them. More specifically, the utterance 'We are parrots' in context correctly applies to men only, and it involves a tensed copula form which suggests the present time

rather than a permanent state of being (Turner 1991: 136). It would seem more adequate, then, to treat this utterance as a figure of speech rather than as a false categorial statement or an indication of the absence of classification. Subsequent research has largely focused on the question of precisely which figure of speech the utterance involves,<sup>1</sup> but the most salient fact to be noted here is that the Bororo do not appear to consider it false, deviant or inappropriate given the linguistic, extralinguistic, and actional context of the ritual.

Rosaldo (1972) presents other examples of such 'primitive' metaphor among the Ilongots, a loosely structured and unstratified society of hunters and swidden agriculturalists in the Philippines. She found that the Ilongots have as many as 13 different names, indicative of body parts, for orchids used in magical spells for curing people. Used as category names to indicate specific kinds of orchids, these names were used quite inconsistently by different speakers, and even by single speakers on different occasions; instead, specific names 'appeared as descriptive titles, designating sets of plants as appropriate to a certain context or kind of spell' (1972: 86). Thus, a single kind of flower may be called *ge-lawagide*, 'their fingers', or *qudungde*, 'their thighs', both on the basis of some perceived similarity with the named body part; to distinguish among closely related plants, Ilongots may also employ color terms or the adjectives 'male' or 'female'. The plants used in spells are generally taken from places inhabited by a specific spirit, and steamed so that the spirit's body enters that of the patient; the plant name is then used to threaten the spirit:

Here are your fingers, spirit; I steam your fingers, spirit.  
They will be knotted, spirit.  
Make him well now (1972: 85)

Body-part names thus appear to be used metaphorically to order an otherwise unstructured domain of orchids, not so much on the basis of specific similarities as of a 'contextually relevant equivalence' (1972: 94). In other words, the specific purpose of the spell rather than the properties inherent in the plant determine the use of one name rather than another. The Ilongots, then, classify orchids, not on the basis of shared abstract features or properties, but rather as the occasion arises and for specific contextually determined purposes.

The apparent appropriateness of such metaphors in context, paired with a rather unsystematic, highly situated way of categorizing objects, seems to pose a problem for the various recent theories that treat metaphor as a violation of linguistic rules or norms, or as an exploitation of general principles of rational communication (e.g. Grice 1989, Searle 1979).<sup>2</sup> A common assumption in these theories is that at the level of literal meaning, metaphors are 'defective' in one way or another, which again presupposes a notion of a relatively stable and context-free 'literal meaning'. This notion has been attacked on independent grounds (see e.g. Bartsch 1994), but I would like to focus on another, related assumption here: metaphors are often believed to involve a category mistake on

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<sup>1</sup>Crocker (1985) argues for its metaphorical character; Turner (1991) holds that it is partly metaphor, partly metonymy, and partly synecdoche.

<sup>2</sup>Grice (1989: 34) holds that metaphors in their literal interpretation 'characteristically involve categorial falsehood', and seems to believe that this criterion in general warrants a metaphorical interpretation. Searle (1979: 114) maintains a weaker notion of defectiveness of the sentence when taken literally: 'obvious falsehood, semantic nonsense, violations of the rules of speech acts, or violations of conversational principles of communication'.

the level of literal meaning, and this categorial falsehood is held to warrant the figurative interpretation of the utterance. Thus, the language user is supposed to possess a number of more or less fixed semantic or conceptual categories; but this does not seem to square well with the way the above-quoted metaphors function in their natural habitat.

Surprisingly perhaps, this assumption of relatively stable and context-free categories appears to be largely shared by Lakoff and Johnson's cognitive semantics, an approach to metaphor which otherwise claims to find little to agree with in its predecessors. This approach sees metaphor as not just a linguistic phenomenon, but as a reflection of our general cognitive ability to see one thing in terms of another. Thus, Lakoff (1987) mounts a full-scale attack against 'objectivist' semantics (comprising, roughly, theories that try to capture meaning in terms of truth conditions and reference to an extramental and extralinguistic world), which he believes is represented by the work of Grice, Searle, and Davidson. As an alternative, he outlines an 'experientialist' theory that defines meaning in terms of 'embodied understanding': for him, conceptual structure is 'embodied' as it arises from preconceptual experience which is itself 'directly meaningful' (1987: 267). 'Preconceptual' experiences are structured in terms of *basic-level categories* 'characterized by gestalt perception, mental imagery, and motor movements' (roughly corresponding to what Rosch 1978 called 'protoypes') and *image schemas* (i.e., 'relatively simple' structures and orientations that 'constantly recur in our everyday experience', such as CONTAINERS, PATHS, FORCES, UP-DOWN, PART-WHOLE, etc.). Abstract conceptual structure is indirectly meaningful in that it arises from basic-level and image-schema structure by metaphorical projection (e.g. by conceptualizing theories as containers) or projection to superordinate or subordinate categories.

Although Lakoff at times speaks of embodiment in terms of physical *and social* experiences (1987: 267), he seems to assume for the most part that preconceptual experience is purely physical interaction with objects in virtue of our biologically determined buildup and sensori-motor capacities, and thus is common to all human beings. Significantly, he repeatedly speaks of basic-level gestalt perception in terms of physical experience, and of image schemas as emerging from our 'constant bodily functioning' (e.g. 1987: 269, 278). On this view, all humans share a preconceptual structuring of experiences in virtue of their biological constitution. We may then perhaps ascribe to Lakoff a moderate cognitive relativism: while the actual metaphorical mappings from the domain of basic-level experiences to 'abstract' conceptual domains may vary between and within cultures and languages (e.g. love may be conceptualized as a journey, a collective labor, a heavy burden, etc.), the categorization principles of basic-level domains and mappings are essentially the same for all human beings.

This model may sound attractive as an alternative to an 'objectivist' semantic theory, but it faces a number of difficulties of its own. To begin with, Lakoff holds that the image schemas involved in metaphorical mappings are 'relatively simple'; but they are nonetheless abstract and context-independent. Schemas like CONTAINER are a kind of abstract conceptual structure in terms of which to structure both concrete and abstract 'first-order' categories such as *cup* and *theory*, and thus involve in a way a further abstraction from those first-order concepts. However, it is not clear where such 'superordinate' metaphorical concepts themselves come from, if not through abstraction or some other cognitive operation upon the various first-order concepts involved; but Lakoff claims that they precisely make the classification of first-order abstract

experiences possible. In other words, cognitive semantics *presupposes* that abstract image structures are logically prior to the understanding of first-order concepts; but it seems rather counterintuitive to treat the more abstract as making the more concrete possible, especially for a theory that claims to give an account of what actually goes on in people's heads.

Likewise, the assumption that basic-level categories are preconceptual and result from our biological constitution seems too strong. Kinship terms, for example, not only are as 'basic' as any other category from direct experience, as obviously children are usually surrounded by their kin right from the start; these terms are also among the most widely used bases for metaphorical expression (cf. Leach 1982: 138-9); but obviously, kinship as linguistically expressed is not a biologically determined domain of experience: it allows for wide cross-cultural variations. It is also difficult to see how such 'basic-level' categories as *boy*, *mother*, or *table* can be wholly prior to their linguistic expression. Obviously, these notions do not emerge from the physical interaction between individual and environment, but require an intermediate level of socially organized experience. In short, the treatment of image schemas and basic-level categories, which are largely culture- and language-dependent, as entirely preconceptual or biologically determined seems problematic as well.<sup>1</sup>

A final difficulty is that cognitive semantics presupposes the domains of 'concrete' (physical) and 'abstract' experience as distinct, even disjunct, classes. This requires the language user to realize that these cognitive domains are distinct from each other before she can even begin to conceptualize such abstract domains metaphorically; for if there is no strict distinction between the domains to begin with, there will not be in any clear sense a transfer *between* domains: if there is no categorial boundary between the source and target domains of e.g. physical heat and anger, the interpretation of 'he was red hot with rage' can hardly be said to involve any mapping from the one domain to the other. The language user need perhaps not be *aware* of different categorial domains being involved, but the postulated cognitive operations themselves do require such distinctions. In other words, cognitive semantics presupposes precisely what it should explain: the ability to create and structure *distinct* domains by metaphorical mappings. The assumption of distinct and context-free conceptual domains also seems at odds with the suggestion that objects are not rigorously and systematically classified in nonliterate societies, which appeared from the metaphors quoted above. In all, cognitive semantics shares with its 'objectivist' predecessors an emphasis on individual, presumably universal, cognitive operations abstracted from particular contexts of use, and a lack of attention to sociocultural variables and their influence on the process of concept formation.

Let us have a look at theories that *do* take such sociocultural factors seriously. A good starting point is perhaps to look at anthropological theories of 'primitive' classification and categorization. What are the category distinctions that individuals in 'primitive' (that is, nonliterate and non-urbanized) societies impose on the external world, and how, if at all, does metaphorical language involve a violation of, or a transfer between, such categorial distinctions? The seminal work in this context is Durkheim & Mauss (1963 [1903]), which claims

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<sup>1</sup>As an aside, it may also be remarked that there is no clear reason why everyday experiences such as emotions or argumentation (both of which, according to Lakoff & Johnson, are metaphorically structured) should be any less basic than experiences arising from the human organism interacting with the physical objects around it.

that systems of primitive classification reflect the organization of the societies in which they occur rather than abstract logical principles. The least evolved societies, they hold, do not distinguish at all between animals, people and inanimate things (1963: 6). It is only when a society becomes more evolved and differentiated into moieties ('halves'), clans, and the like, that subdivisions come to be made among the objects in the world; but these subdivisions reflect the social order rather than any inherently cognitive processes. Thus, they argue that the Australian Wakelbura Aborigines, who are divided into two moieties and four marriage classes, can classify humans, animals, and plants in the same 'categories' held by links involving (for us at least) metaphor or metonymy: objects associated with the same moiety or marriage class are also 'conceptually' placed together (1963: 13). Durkheim & Mauss stress that these associations are not seen as figurative by the native speakers: 'whereas for us [the expressions referring to social and other ties] are hardly more than metaphors, originally they meant what they said... Logical relations are thus, in a sense, domestic relations.' (1963: 84). In other words, the grouping of objects under the same category is not perceived as involving any kind of figurative transfer; application of a term belonging associated with one 'category' to an object associated with another would be considered a social rather than a cognitive transgression.

As noted, this would seem to imply that in the least differentiated societies, few or no category distinctions are made at all, so that there would be hardly any distinction between different applications of the same lexical item. But this does not seem a plausible conclusion: if an expression can be made to mean anything, it means nothing. Durkheim & Mauss also appear to overemphasize the phenomenon of 'social thinking', and consequently do not sufficiently allow for variation and change originating from individual contributions (Goody 1977: 23); their rigid social determinism would make individual variations in language use, for example as occurring in occasional metaphorical utterances, extremely difficult to account for. It suggests that, in a way, novel classifications *cannot be thought* in the absence of a corresponding change in social structure.

Goody (1977: ch. 4) further made the interesting objection that Durkheim and Mauss reduce a nonliterate society's classifications to the graphic (i.e., literate) form of a table, and thus impose an order on 'primitive thought' which it may not possess in itself. Classification in oral societies, Goody argues, is not as systematic, exhaustive, and decontextualized as in literate ones, so the attempt to force a more or less coherent, fixed system based on essentially graphic representations onto these processes already involves a certain ethnocentric bias. The 'contextual flexibility' that Goody attributes to nonliterate language users is also indicated by the Ilongot orchid metaphors, and by e.g. the fact that in many languages, basic vocabulary items such as kinship terms like *father* or *mother* may be used to indicate different relations in different contexts, without any sense being 'primary' (Leach 1982: 138-9). In short, Durkheim & Mauss pose a number of important suggestions regarding the social basis of classification, but their claim of social factors as actually *causing* classifications, and their downplaying of individual variation and its potential for change seem mistaken.

A quite original theory of concepts, which was in part inspired by Durkheim's work on 'primitive classification', was outlined by the Russian psychologist Lev Vygotsky (1986). The essentials of a Vygotskian approach to concept formation are the idea that concept development is essentially *mediated* through signs: speech and thinking run separate courses during the first stages of children's development, but from roughly age two, they merge and develop in mutual



interaction. Vygotsky thus assigns a crucial role to language and other social factors in the process of concept formation. But also later on, the *kinds* of concepts the growing child employs undergo radical changes; parallel to this change in concepts, words also change their meaning in the developmental process (Vygotsky 1986: ch. 7; cf. Luria 1976: 91-2).

On the basis of experimental studies, Vygotsky found three basic stages in concept formation.<sup>1</sup> First, children group objects together without any stable basis: the bonds linking the different objects are still subjective and highly unstable. Vygotsky calls such concepts 'heaps'. In the second stage, 'complexes' are formed: objects are grouped together on the basis of actually existing relations, but these relations may differ from context to context.<sup>2</sup> Moreover, objects are still grouped together on the basis of concrete, factual bonds rather than abstract logical ones. The final substage of this stage involves thinking in 'pseudoconcepts', which are phenotypically like adult concepts, but differ from them operationally in that they are based on a (single) *perceptual* bond. In the third stage, 'potential concepts' are formed, much like adult concepts, on the basis of single abstracted attributes, but more as a matter of habit than of conscious reflection. As soon as such a potential concept is consciously operated upon, however, mature scientific concepts start to take shape: 'a [theoretical] concept emerges only when the abstracted traits are synthesized anew and the resulting abstract synthesis becomes the main instrument of thought' (1986: 139). That is, mature concepts not only involve abstracted features, but also their being explicitly recognized and consciously employed in grouping objects.

It should be stressed that mere observation of linguistic behavior does not suffice to distinguish these phases in conceptual development: the objects grouped together may be the same in the various stages, but the bases on which they are grouped become clear only in experimental situations. Complexes are already 'functionally equivalent' with real concepts, that is, children will apply the same expressions to objects as adults would: the extensions of adult and children's expressions already coincide at a relatively early stage. The *reasons* for these coinciding classifications are quite distinct, however: they are based on concrete and factual bonds, and on consciously employed abstract features, respectively. Children will only learn to classify objects in a rigorous, abstract manner in a prolonged process of schooling during adolescence. Thus, the development of full-blown, 'scientific' concepts based on abstract and context-invariant features is essentially related to literacy and formal education. But even schooled adults employ complexes and pseudoconcepts rather than scientific concepts for solving daily problems (1986: 140). In other words, although scientific concepts may constitute an ideal or norm of 'proper' conceptual thinking, most people will employ the less organized forms of thinking if they can get along with it.

This 'cultural-historical approach' to concept development naturally lends itself to other terrains than the ontogenetic development of the child, although it need not imply a view of ontogenesis as merely recapitulating phylogenesis. Vygotsky specifically addresses the phenomenon of 'primitive thought', in

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<sup>1</sup>Vygotsky made further subdistinctions within these respective stages, but these are not essential to the present argument.

<sup>2</sup>The notion of complex thus involves something like what Wittgenstein called 'family resemblances': while any two objects headed under the concept may share some attributes, the group as a whole does not have any single attribute that is common to all its members.

particular the apparently illogical Bororo utterance quoted above. He warns against approaching nonliterate societies in terms of our own most developed scientific concepts: 'primitive people think in complexes, and consequently the word in their languages does not function as a carrier of the concept, but rather as a family name for a group of concrete objects belonging together, not logically, but factually' (1986: 129).<sup>1</sup> Once we realize that nonliteral peoples think in complexes rather than in systematic scientific concepts, he argues, much of the 'illogical' or 'prelogical' character of 'primitive thought' as originally noted by authors like Lévy-Bruhl and Durkheim simply disappears. He takes Lévy-Bruhl to task for analyzing the Bororo utterance 'we are parrots' in terms of his own logic involving identity assertions and the like, whereas the Bororo expression for 'parrot' is a word for a complex that includes parrots and (male) Bororo themselves: 'it does not imply identity any more than a family name shared by two related individuals implies that they are one and the same person' (1986: 130). I agree with these remarks as far as they go, but they do not yet completely describe what happens in the Bororo ritual. I would add that, in the ritual and for the purposes of the ritual only, the male Bororo become parrots by dressing up with feathers and assuming other parrot attributes, that is, by becoming factually related to parrots in the (to us) stricter sense. The Bororo do not seem to feel a need for a decontextualized classification of parrots in abstraction from specific situations, ritual or other.

The Vygotskian line of thought was taken up by the British anthropologist Jack Goody, who specifically concentrated on the role of writing in cognitive processes. At first, he suggested that literacy accounts for a difference in the mechanics of communication rather than in cognitive styles (Goody 1977: 12); in later work, however (e.g. Goody 1987), he argued that differences in means of communication also lead to qualitative cognitive differences. The basis for his argument is the role that early forms of writing seem to play. Goody notes that *lists* are prominent among the earliest written texts such as Sumerian clay tablets, - indeed surprisingly prominent, as they form a kind of language use quite remote from spoken communication, and cannot be seen as in any way continuous with oral discourse. The Sumerian lists were of various kinds, such as inventories, lists of traded goods, and household statistics. Goody holds that such lists, which constitute an essentially graphic mode of representation, force a greater systematization of the language on the speakers, as they require unequivocal decisions whether or not some item belongs to a certain class or category. Writing thus makes language more decontextualized and more discontinuous, as it establishes the need for stricter categorial boundaries in abstraction from particular contexts. In such a perspective, writing is a precondition for the systematic, consistent codification of words and their meanings, and thus for the recognition of 'deviant' usages as such. This suggests that literacy is also an essential precondition for the ability to distinguish between the literal and figurative use of expressions. In other words, nonliterate individuals would hardly consider a particular - contextually appropriate - utterance like 'we are parrots' as figurative or otherwise odd at all.

It would be good to see if such broad claims are corroborated by ethnographic findings. Fortunately, there have been several empirical investigations along the lines of Vygotsky's and Goody's work. In the early 1930s, the Russian

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<sup>1</sup>For obvious reasons, the term 'primitive' would nowadays be replaced by a less pejorative one; I think that 'nonliterate' would be a good contextual synonym in this case.

psychologist Alexander Luria, set out to test Vygotsky's hypotheses in extensive field investigations among illiterate peasants in Uzbekistan. He wanted to find out whether the profound socioeconomic and cultural changes following the Soviet Revolution had any cognitive consequences, as a materialistic theory of psychology would predict. For this purpose, he conducted various experiments among people with different degrees of exposure to the new and quickly modernizing social situation: illiterate peasants from remote villages, collective-farm activists, and subjects with a larger amount of education (Luria 1976). At the time, however, Vygotsky's theories were considered insufficiently Marxist in character, while Luria's field investigations were criticized for an alleged bias against national minorities (see Kozulin's introduction to Vygotsky 1986: xli, xliii). Consequently, Luria only published his findings in the late 1960s.

Luria specifically tested for the effects of literacy and schooling on classification, and his findings were spectacular indeed. In one experiment, several unschooled and illiterate peasants were presented with pictures of a hammer, a saw, a log, and a hatchet, and asked which one did not belong there; later, the same question was put to subjects with more schooling. Among the peasants, the response was practically unanimous. To quote a typical case:

"They all fit there! The saw has to saw the log, the hammer has to hammer it, and the hatchet has to chop it. ... You can't take any of these things away. There isn't any you don't need!"

**But one fellow told me the log didn't belong here.**

"Why'd he say that? If we say the log isn't like the other things and put it off to one side, we'd be making a mistake. All these things are needed for the log."

**Look, you can use one word -tools- for these but not for the log.**

"What sense does it make to use one word for them all if they're not going to work together?"

**What word could you use for these things?**

"The words people use: saw, hammer, hatchet. You can't use one word for them all!"

**Could you call them tools?**

"Yes, you could, except a log isn't a tool. Still, the way we look at it, the log has to be there. Otherwise, what good are the others?" (Luria 1976: 58-59)

The last remark is particularly revealing: even when explicitly presented with an appropriate abstract categorial term, illiterate peasants would typically reject it as false or irrelevant. Their classifications appeared to be of a functional rather than a taxonomic character. One might surmise that the same persons would feel equally comfortable in classifying a log of wood together with, say, a stove, a furnace, and a fireplace,- items that belong together functionally, though not categorially. Literate subjects presented a totally different behavior: even those with merely one or two years of schooling grouped objects in terms of abstract categories like 'tools' without hesitating. Luria also investigated processes of syllogistic reasoning, imagination, and perception among subjects with varying amounts of schooling. The results were uniform throughout: by and large, illiterate subjects were unable, or unwilling, to abstract from their own immediate experience, concrete situations, and concrete goals.<sup>1</sup> This strongly

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<sup>1</sup>Luria also argues that Gestalt experiences depend on cultural conditions like level of education; his experiments involving optical illusions, for example, yielded rather divergent responses among the various investigated groups (Luria 1976: 31-47). This idea contradicts e.g. Lakoff's view that Gestalts are somehow basic to human experience, but unfortunately, for as far as I am aware, there have been no further investigations to test Luria's preliminary and somewhat impressionistic findings.

suggests that illiterate agents employ a situational kind of thinking directed towards concrete goals, rather than classifying objects in terms of abstract, context-free principles such as similarity or shared features.

At the same time, illiterate language users appeared to have no qualms about the figurative application of words. Ichkari women, for example, freely used object names like 'spoiled cotton' or 'decayed teeth' to indicate color hues for which their color term vocabulary was inadequate; at the same time, they had great difficulties in dividing different colors into groups (1976: 24-7). This suggests that they did indeed have no difficulty in extending expressions to new cases on the basis of some factual or perceptual relation, while being unable or unwilling to classify objects or linguistic items according to abstract principles in isolation from immediate experiences and purposes.

But a nagging question remains: did Luria really establish that literacy, rather than some concomitant factor such as formal schooling or urbanization, determines the presumed changes in cognitive style? Research carried out by Sylvia Scribner and Michael Cole (1981) among the Vai in Liberia presents evidence against such a sweeping conclusion. The Vai are rather distinct in having their own syllabary script, which is learned outside institutional settings, alongside the Arabic and Latin alphabets which are learned in Qur'anic schools in the villages and in the state schools where English is taught, respectively. Some members of the community are literate in the native script; others are literate in Arabic or in English, and yet others are completely illiterate. Scribner and Cole also took factors like age and socioeconomic background (e.g., an urban, trade-related lifestyle versus an agricultural, 'traditional' one) into account; this allowed them to isolate literacy as a variable, and to test for its influence on cognitive capacities. The results of their investigations contradict the broader claims that literacy leads to a change in general cognitive abilities. Rather, specific kinds of literacy lead to an improvement in specific skills; literacy in Arabic, for example, which is largely involves the memorization of verses from the Qur'an, yielded an increase in the ability for literal verbal recall, but not in classification abilities. The other kinds of literacy also led to small changes, but not to qualitative leaps that Goody and Luria had argued for: in itself, literacy is no substitute for schooling as a way of forming general cognitive skills. In the light of these findings, Scribner & Cole prefer to see literacy as a practice, that is, a 'recurrent, goal-directed sequence of activities using a particular technology and particular systems of knowledge' (1981: 237). Different kinds of literate practice, that is, tend to enhance specific abilities.

In short, Scribner & Cole (1981: 116-133) found that literacy *in itself* does not lead to any major changes in conceptual processes like classification. The only factors that did seem to enhance the ability to classify objects in terms of abstract superordinate categories and to give a general verbal explanation for doing so (e.g., the classification of eggplants and kola-nuts as food, and motivating this choice by saying something like 'both are food items') were schooling at secondary level and urban, trade-related living. But even these increases were not as dramatic as one would expect. Apparently, the acquisition of these skills requires a prolonged and deliberate effort. Rather than concluding that illiterates are almost equally good in context-free classification and explanation as literates, one might thus hold that most literates performed almost as poorly as illiterates. Theoretic concepts, in other words, appear to be a limit case rather than the most obvious way of classifying objects.

Other experiments, however, especially those testing the ability to reason with syllogisms abstracted from particular contexts and personal experience, did show significant differences between schooled and unschooled subjects (though less between literate and illiterate ones). Scribner & Cole also found confirmation for Luria's idea that the ability to define expressions in terms of abstract class membership varies with the kind of concept expressed: 'academic concepts' such as *government* or *name*, which belong to organized bodies of knowledge typically transmitted through schooling, were more readily defined in abstract terms than 'mundane' concepts concerning common objects from everyday experience (1981: 150; cf. Luria 1976: 85-6). So Scribner & Cole's findings moderate Luria's to some extent, but they are not completely at odds with them. Specifically, they do not run counter to the suggestion made above that mundane concepts of nonliterate, and to a lesser extent of literate, are to be seen as complexes rather than as 'scientific concepts', that is, organized in terms of abstract features.

What does the above imply for the notion of metaphor in nonliterate societies? Unfortunately, this question has - for as far as I am aware - not been investigated empirically, but some tentative conceptual conclusions may be drawn. One may assume that, in nonliterate societies at least, literal words meanings, abstract categories and conceptual domains play a less prominent role than they are assigned in most modern theories of metaphor. The strict distinction between literal and metaphorical language usage presupposes an awareness of abstract features and categorial boundaries like 'living', 'nonliving', 'human', etc., which we saw to emerge at a relative late stage in concept formation only. Moreover, the employment of such abstract features as the main basis for classification crucially involves cultural variables like literacy and schooling. In other words, the idea of metaphor as a deviation from literal language, to be treated in terms of category mistakes or mappings between conceptual domains, can no longer be considered as universal or culture-independent.

The findings reported by Luria and Rosaldo indeed suggest that illiterate subjects are unlikely to reject 'figurative' sentences as deviant, ungrammatical, or as 'category mistakes' on the basis of which they will reconstruct the speaker's intended meaning. Rather, what counts is whether a sentence, whether literal or metaphorical, is *situationally appropriate*, that is, whether it is somehow applicable in its context of utterance. Recognition of an utterance figurative language use as such seems to be relatively independent of, and in any case posterior to, the correct interpretation of an utterance, as it depends on formal education and explicit knowledge of linguistic norms. The interpretation of the Bororo utterance 'We are parrots', and, I would suggest, of many of the everyday metaphors that literate individuals encounter and interpret with little difficulty or conscious deliberation, involves complexes rather than scientific concepts. Rather than starting from some categorial boundaries which are perceived as given, and violated by the utterance, the hearer relies on some contextually present or relevant feature in virtue of which, say, Bororo males and parrots may be grouped together (the Bororo would probably look for feathers and parrot-like behavior). This contextual feature need not be consciously employed as the basis for the metaphor, as it would be if a scientific concept were involved: for complex thinking, it suffices that there be some factual or perceptual basis for the grouping together of humans and parrots under the same label.

How, then, do individuals in illiterate societies handle metaphorical language? I would suggest: much like literal language. In context, a sentence which literates would rank as deviant or figurative on the basis of some categorial anomaly may be just as acceptable to individuals in an oral society as ones we would consider fully literal. No real or apparent category mistake at the level of literal meaning is involved, because there are no fixed and stable literal meanings and categories to begin with. This is not, of course, to deny the existence of linguistic norms of correctness in oral societies: somebody calling a parrot a dog would not normally meet with approval. Rather, such norms of correctness are just of a different kind than those in literate societies: they are not explicit or codified, but flexible and highly context-bound. In the Bororo ritual, the actants *actually* become parrots in a sense; for us, this contextual sense may be at odds with the 'literal' sense indicating a biological species, but for the Bororo there is no such decontextualized literal sense to begin with: use in a figurative sense involves no violation of rules for literal language. In other words, the very distinction between literal and figurative would be meaningless for an illiterate language user.

The upshot of all this is that in nonliterate societies, classification does not appear to be as strict and systematic as in societies where writing allows the listing and codification of linguistic expressions. Classifications seem to be related to personal experience, the actual context of use, and the language user's more immediate situational interests, goals and needs. A nonliterate individual may adhere to a classification without realizing it, and in context may assent to 'deviant' uses of expressions without being aware of any violation. When nonliterate individuals *have* to, they may well be able to make a categorial distinction or sorting among objects, although perhaps not to state in abstract, general terms *why* they do so. In everyday communication, however, such abstract and decontextualized criteria of classification may not be of much relevance to them. As already remarked, this position does not commit us to the claim, defended by e.g. Lévy-Bruhl, that illiterates have a 'pre-logical' mode of thought where, for example, the law of noncontradiction does not hold. When confronted with two contradictory sentences in a single context, an illiterate individual may be assumed to try to maintain consistency by discarding one of them, or to reconcile them by e.g. restricting their ranges of application, much as a literate person would. Rather, in the absence of codified norms and means of registration, utterances largely remain tied to their specific context, which makes them relatively difficult to compare with each other, e.g. in order to check their mutual consistency. When utterances are written down, such comparison becomes much easier.

In short, the romantic claim that preliterate individuals speak in metaphors seems to be accurate up to a certain degree only, and rests on a measure of ethnocentrism in that it assumes the notion of metaphor to be a given, culture-independent notion, which it is not. By the same token, the notion of literal meaning is not unproblematic or culture-independent; a crucial cultural prerequisite for an awareness of literal and figurative meaning, and of a distinction between the two, is writing, which allows members of the language community to list or spell out the current or 'literal' uses of an expression.<sup>1</sup>

The realization that 'scientific', abstract concepts and literal meanings are culturally determined ideal cases rather than universal or given notions should

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<sup>1</sup>The prime locus where such listing of 'literal meanings' is performed is, of course, the dictionary.

make their employment in a general theory of metaphor less self-evident. In other words, the above findings about language understanding and classification in nonliterate societies may have important consequences for a theory of metaphor in literate societies as well. They suggest a picture in which the context of utterance, rather than abstract categories or mappings between conceptual domains, plays a primary role in interpretation, both literal and metaphorical. A theory of direct contextual interpretation along the lines of Bartsch (1994) could account for this rather straightforwardly. Considerations of space preclude a fuller outline, but a theory of interpretation that systematically takes contextual factors into account would square well with what has been argued here.

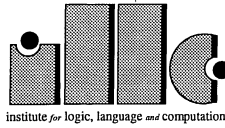
On such an approach, metaphor does not quite play the same role in language understanding and concept formation that e.g. Lakoff (1987) assigns it. Even for literate language users, 'abstract', theoretic concepts are not mere metaphorical extensions of 'concrete' complexes related to everyday biological or cultural experience: they involve a qualitative change in the cognitive processes involved. Sociocultural factors such as literacy and formal education play an essential role in bringing about this change. Further, it may very well be that adult literate language users rely on complex thinking rather than on scientific concepts in interpreting everyday occurrences of metaphor: what counts in such cases is contextual appropriateness rather than context-free categorical or conceptual boundaries. An adequate theory of metaphor, and by extension an adequate theory of literal word meaning, would do well to take such contextual influences on conceptual processes into account, rather than taking a literacy-based ideal of stable, abstract concepts as its starting point.

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