

On Linguocentrism

NICK J. ENFIELD
University of Melbourne

1. Introduction¹

In discussions of methodology in research on the hypothesized relationship between “language”, “thought”, and “culture”, one finds objections to the use of linguistic evidence in establishing the existence of cultural or cognitive patterns, whose relationship to linguistic structure is at issue. Lenneberg, for example, in a 1954 discussion of strategy of research on the so-called Whorfian hypothesis, warned against potential circularity, that one of the “greatest traps” would be to settle for “verbal responses” alone in comparing languages and cultures, leaving us with “no extralinguistic check” on the experiment (Hojjer 1954: 266-7). More recently, Lucy has used the term “lingua-centrism” (I will use linguocentrism)², criticizing anthropological linguistic tradition for typically “not provid[ing] clear evidence for a non-linguistic correlate with grammatical patterns” (Lucy 1996: 44). He argues that “(a)n adequate study of the relation between language and thought should, by contrast, provide clear evidence of a correlation of a language system with a pattern of non-linguistic belief and behavior – individual or institutional”. Lucy does not claim that evidence of “non-linguistic” thought or culture is not found in linguistic structure, but that “from a methodological point of view”, linguistic materials “cannot be persuasive by themselves in showing broader effects of language” (1996: 44).

In earlier work, Lucy noted that “lingua-centric” studies “typically *presuppose* a close linkage between language and thought” (1992a: 70, original emphasis), that “if [language and thought] are equated, then what is to be proven will have, in effect, been presupposed” (Lucy 1992a: 264). He therefore insists that the linguistic be separated from the nonlinguistic, in testing for “a linkage” between them. But as Lee points out, this “deliberate operational separation of language and thought in order to accommodate

theoretical preconditions for empirical investigation” (Lee 1996: 78) similarly requires a presupposition, namely that separation is possible at all. Hill and Mannheim (1992: 382) similarly describe as “problematic” the “separation of ‘language’ and ‘nonlanguage’ such that these can be then ‘related’ one to another [sic]”, adding that the “notion of the ‘linguistic’ versus the ‘nonlinguistic’ eludes contemporary cultural anthropologists”. One’s basic presuppositions must be argued for in either case.

In this essay, I will explore a range of perspectives from which linguocentrism seems inevitable. First, both the structure and practice of language play such a fundamental role in the phylogenesis and ontogenesis of human “mindedness”, that it is difficult, if not impossible, to isolate anything cognitive or cultural which is not already imbued with language at a profound level. Second, the achievement of culture involves semiotic processes which allow us to create and maintain the “shared-ness” of ideas and significances which culture entails. And language is overwhelmingly the dominant semiotic system for humans in the process of creation and maintenance of the social alignment of ideas which we call culture. Third – a methodological point – language provides our primary, and often only, means for explication and discussion of all matters linguistic, cultural, and cognitive, as entailed in any treatment of linguistic relativity.

Accordingly, a theory of language must incorporate culture, and vice versa (Keesing 1979). We may view empirical studies of language and culture as no longer concerned with (dis)confirming some hypothesis of relationship or interconnection, but rather as aimed at establishing the salient or dominant conceptual themes in any “culture-language complex” (Whorf and Trager 1996[1938]: 266), and the patterns by which these are distributed, on all sorts of levels, throughout the massively variegated sphere of a language/culture. While not at all downplaying the cautions that have been issued regarding the methodological dangers of linguocentrism, I argue that given the right level of care to avoid *monolingucentrism*, the linguocentrism “problem” may not be a problem at all. Rather, linguocentrism is inherent in the epistemology of culture and thought.

2. Current speculation on the evolution of language

The very idea that the phylogenesis of language can, or should, be described at all, is hotly contested, let alone the question of what such an account would look like. Nevertheless, it is useful and relevant in the present context to begin with a few points emerging from within current debate.

Some 5 to 7 million years ago, humans and chimpanzees diverged, separating the human line from the rest of the extant primates. The “crucial innovation” of our *Australopithecine* ancestors after that time was “that they were bipedal and stood upright” (Foley 1997: 51). Behaviorally, they were still fairly “ape-like”, but may have been already showing signs of hemispheric specialization and preferential right-handedness, known to be associated with linguistic ability. *Homo habilis* emerged around 2 million years ago, and had not only a significantly larger brain than its predecessor, but a brain which showed “a number of anatomical features we associate with the brains of modern humans” (Foley 1997: 53), especially those associated with language. One hypothesis is that a primitive kind of “proto-language” emerged with *Homo habilis*, essentially serving a “gossip” or social relationship maintenance function, relieving the excessive “time burden for grooming” that the expanding social group entailed (Dunbar 1993). There is clear evidence, based on patterns in tool production (Toth 1985), and findings regarding neural organization in the brain of *Homo habilis* (Tobias 1987), that preferential right-handedness had already emerged by the same time (see papers in Gibson and Ingold 1993). *Homo erectus* appeared about 1.8 million years ago, with a considerably larger brain and more human-like behavior (in a number of ways), probably showing increased linguistic sophistication (as suggested by greater range of tools, coordinated control of fire, migration, and so on). But the behavior (culture?) and technology of *Homo erectus* apparently remained static for about a million years (Noble and Davidson 1996: 173, Goody 1995a: 2), an apparently “unthinkable” situation for modern humans, indicating that *Homo erectus* “did not yet have the equivalent of our symbolic and linguistic abilities” (Foley 1997: 71).

Foley hypothesizes (1997: 73) that “language as we understand it... was born about 200,000 years ago”. Others, however, (e.g. Chase and Dibble 1987, Mellars 1989, cf. also Salzmann 1993: 94), regard the “human revolution”, an explosion of cultural and technological activity of some 40,000 years ago, as being closer to the time of “the first appearance of fully developed symbolic human language” (Foley 1997: 73).³ Foley acknowledges that this may have been the time of a profound event in the evolution of language, through which some functions of language “not... likely to have been as highlighted in its earliest role as social glue” emerge: “It may only be around this period of 40,000 years ago or so that the propositional [sic] bearing function of speech, as opposed to its social bonding one, really came into its own” (Foley 1997: 73). What emerged was “a semantic description of things”, “metalinguistic awareness”, and “the displacement function”, the basis of the peculiarly human trait of imagination, which may be employed “as a tool of cognitive reflection while talking to oneself” (Foley 1997: 73;

cf. also Hockett 1960, Noble and Davidson 1996: 46, 68, Salzmann 1993: Chapter 2). The implications of this level of linguistic organization are manifold, which leads us now to consider the position of Noble and Davidson (1996), for whom this displacement function is precisely what makes language language.

3. Semiotics, conceptualization, and culture

Noble and Davidson, in their (1996) book *Human Evolution, Language, and Mind* stress the significance of symbolic ability, and argue that human “mind-ness” is wholly based on the ability to symbolize, and that, in turn, this symbolic ability is both the definitive feature of language, and a language-constituted thing in itself.⁴ According to them, there is not only no language without symbolism, but also no symbolism without language. Further, they argue, symbolism (like language) is exclusively human: “The capacity to see that X stands for Y is not readily observed in nature” (Noble and Davidson 1996: 61). Even where there are cases of signification in nature (cf. Salzmann 1993: Chapter 2, Sebeok 1994 and references therein), Noble and Davidson argue that creatures involved “show no signs of seeing that those signs stand for... whatever they do stand for” (Noble and Davidson 1996: 61). Alluding to the kinds of conceptual representation that allow human imagination, conceptual “displacement”, and reflexive consciousness, they argue that “(t)he most critical ability required for code-making is that of manipulating things at a conceptual level” (Noble and Davidson 1996: 61).

While I do not doubt the qualitative distinction between human language and the “languages” of other creatures (see Deacon 1997 for a recent view), the arguments which Noble and Davidson put forward are not always clear. For example, they claim that “recognition” is a symbolic and exclusively human ability. But clearly, other creatures display “recognition” – identifying a token with a type or category – in discerning, say, prey from predator, edible from inedible, competitor from potential mate. This is evidently exploited in “iconic deception” and other features of zoosemiotics (Sebeok 1972, 1994: 30-1). Some would simply disagree with the strength of Noble and Davidson’s claims. Byrne (1995), for example, provides a review of arguments that various non-languaging primates show evidence of utilizing a range of conceptual representations, such as complex structural relationships (e.g. systems of kinship relatedness), the concept of self (as in mirror understanding) and concepts of “truth” versus “possible worlds” (as required for mimicry, deception, and intention-attribution). Byrne’s conclusion is that apes display the right kinds of conceptual abilities required for language, and that they

“understand and use true communication, even if they never double-embed a relative clause” (Byrne 1995: 51).⁵

Noble and Davidson argue for the primacy of “referential signs” (which they take to be essentially linguistic) in the realm of culture (Noble and Davidson 1996: 67, emphasis added):

Whatever the reason/s people imbue something with significance, they do so by telling stories which explain what that significance is. Nothing can be made an object of communal reverence without the prior establishment of communal reverence. *It is the shared use of signs for referential purposes that enables the social construction of everything else...* Our position is that *words as symbols enable construction of symbolic (including religious symbolic) universes.*

This applies even to “natural” or “evident” symbolism, prototypical icons, from rock art to Saussure’s “scales of justice” (where there was supposed to be a “natural” connection between the idea of ‘justice’, and the image of balanced scales). Noble and Davidson argue that even this “natural connection” “depends upon [Saussure’s] and his readers’ shared appreciation of the idea, *which can only be elaborated through deployment of linguistic signs, that ‘justice should be even-handed’...* Thus, what looks like an effortless perception is one built on the back of a lengthy history and education *reliant on the use of language* to explicate the various meanings that allow the link to be seen.” (Noble and Davidson 1996: 68-69, emphasis added.) So, an apparently “iconic” link is established in the first place primarily via language, and so it is at least *maintained*, and perhaps even *constituted*, by language. And since so many aspects of cultural knowledge and cultural life involve symbolism and symbolic understanding,⁶ Noble and Davidson’s arguments lead them to a view of culture in general as language-constituted.

Many have already made the claim that culture is a “semiotic system”, closely intertwined with language. Lamb (1984: 71), for example, “explores the hypothesis that the form and organization of linguistic information are to be found also in portions of the cultural information system not commonly considered as included within language”. Halliday (1978) similarly suggests that culture must be represented “in semiotic terms”. By Lucid’s (1977) account, the “semiotic modeling systems” which are the basis of religion, mythology, and other aspects of culture are ultimately signified by natural language, the “primary modeling system”, the underlying system upon which secondary systems are built (but cf. Sebeok 1994: 127 for a different view). According to Lucid (1977: 20), “(t)here could be no communication, no community, without signs. Culture could not organize the social sphere without signs”. From the view of structural anthropology, Leach assumes

“that *all* the various non-verbal dimensions of culture... incorporate coded information in a manner analogous to the sounds and words and sentences of a natural language” (Leach 1976: 10, original emphasis). Compare also Geertz’s (1973) view of culture as “public symbolism”, where “symbolism” extends to what are generally considered more semiotic phenomena – “anything... that is disengaged from its mere actuality and used to impose meaning upon experience” (Geertz 1973: 45; cf. also Firth 1973).

Here, I would like to underline an important point in current dialogue between various views of linguistics and anthropology, specifically, the views of cultural and linguistic practices as either inherently semiotic, inherently psychological, or inherently embedded in practices. (For the latter, see Bourdieu 1977, Foley 1997, Hanks 1996.) I would argue that there is no incompatibility whatsoever between cognitive, semiotic, and practice approaches to culture (cf. Strauss and Quinn 1997). People embody experiences, and this includes experience of all manner of practices which may be termed “cultural”. And what is embodied remains *represented* – not “mentally”, necessarily, but “privately”, nonetheless. While private representations may be constructed and maintained via “structural coupling” (Maturana and Varela 1987), entailing processes taking place beyond the confines of single individuals, yet having structural effect on individuals’ “mindedness”, it remains a fact that individuals *can* represent concepts and embodied experience to themselves (“in the mind”, or “in the body”, when, say, recalling an experience, a word, a method, a smell, a grip, or whatever). Even more importantly, people *must* be able to individually *store* and *transport* all of this “knowledge” (“background”, or what have you). This is entailed by the sheer fact of our individuality as spatially delimited entities (albeit in complete contrast to our social orientation as porous organisms in a system). Thus, an approach to culture as “public” is *entirely compatible* with an approach to culture as “private” (*pace* Geertz 1973), i.e. “represented”. There is no logical exclusion between “semiotic”, “cognitive”, and “practice” approaches to culture.

Now, does a private-public model of culture – i.e. one in which private representations and mediating semiotic/symbolic material interact in constituting culture – entail that cultural conceptualization is essentially linguistic in nature? Noble and Davidson’s arguments for “symbolism” as exclusively language-constituted might suggest this. But it is hard to sustain a strong version of this hypothesis in view of the kinds of (non-linguistic) conceptual representation involved in, for example, ostensive definitions, or the creation of visual-image “mental standards” for industrial design, and so on, as nicely discussed in Keller and Keller (1996). They argue on the basis of fieldwork with industrial designers that “[visual] imagery and sensorimotor representa-

tions... constitute distinct forms of conceptual thought”, which may be *integrated* with linguistic representations, but are not determined by them (Keller and Keller 1996: 119). But is this kind of sense-imagic representational thought – which would seem at first to be “non-linguistic” – *purely* non-linguistic? Consider Keller and Keller’s knife-smith and the “knife” he has *in mind* as he designs and creates. All the while, this image is associated with the linguistic expression *knife*, and presumably also to other linguistically expressible features (e.g. ‘the knife Jones ordered’, ‘a heavy knife with a trailing point that won’t break’; cf. Keller and Keller 1996: 124 and *passim*). While one may indeed conceptually (or proprioceptually) represent detailed visual-sensorimotor images without any linguistic articulation, private or public, something about these images must be *shared* if they are to qualify as *cultural*. And in accounting for the shared-ness of concepts, as Hutchins and Hazlehurst (1995) suggest, a “no telepathy assumption” must be adopted: “no individual can influence the internal processing of another except by putting mediating artifactual structure in the environment of the other” (Hutchins and Hazlehurst 1995: 64). With respect to language, this is a matter of minds being connected by sounds (Chafe, This volume). In other words, while thoughts or private events independent of semiotic/linguistic material are possible (and indeed abound), for them to serve as cultural background, they must be shared, and, further, be assumed to be shared. To achieve this recursively cognizant shared-ness, some material with semiotic potential must serve as a medium for individuals to use in aligning private representations. (For example, I say something to you, I physically demonstrate a technique, I produce something for you to look at.)

So, while there is strong support for the idea that “culture communicates” (Leach 1976: 2), one needn’t argue that *all* conceptual thought or cultural phenomena are linguistic in nature or basis to still make an important claim about the inherently linguocentric nature of culture (and thought) in general. A crucial and defining point about cultural phenomena is that the emicized representations of cultural categories and “rules” which people carry with them (whether or not they are extrapolated from embodied practice) must be *shared* among social associates, in order to enter into the assumed and counter-assumed mutual experiential/conceptual background which allows cultural practices to make sense and to be appropriate.⁸ Language plays a crucial role in transmitting cultural ideas, and maintaining their status as shared, and aligned, by means of constant *assertion* through linguistic semantics, and constant cooperative focus through repetitive mundane talk.

In sum, while Noble and Davidson overstate the role of what they call “symbolism”, and its putatively exclusive linguistic nature, their position that “mindedness in human terms is inseparable from language” (Noble and Da-

vidson 1996: 1) must still be taken seriously. This has important implications for an anti-linguocentric position which stipulates that non-linguistic aspects of thought and culture must be isolated before a connection between language, culture, and thought can be established.

4. Interactional intelligence and language

We may now consider further arguments for assuming a degree of inseparability between language, thought, and culture, which emerge from within recent work regarding the relation between language and the “interactional intelligence” (related to a special complexity in social relations) of higher primates, especially humans.

Higher primates such as chimpanzees are exceptionally intelligent, a fact which seeks explanation. Goody (1995a: 1-2) describes Humphrey’s position, as put forward in his seminal (1976) paper “The social function of intellect”:

(T)here is nothing in their life as foraging animals which demands such a level of intelligence... (I)t is inconceivable that a creature would develop skills that are seldom or never used... So what use is higher-order intelligence to anthropoid apes and stone-age man, if it doesn’t provide an advantage in dealing with the natural environment? Humphrey suggests that the most difficult problems facing chimpanzees are other chimpanzees; that it was in dealing with the social environment that creative intelligence evolved.

Reynolds (e.g. 1993) relates this, with specific reference to humans, to the emerging development of technology. Foley (1997: 68) describes his position on the essential social/interactional dimension of tool-using and artifact-making:

Actions between humans in doing these activities are complementary: each participant anticipates and coordinates with the actions of others in the activity... Other primates never do this... (T)his social coordination of activities and the serial, but hierarchical, structure of action tasks and language are closely related, emerging together, synergistically, during human evolution.

Foley goes on to cite Reynolds’ “complementation theory”; “a model of human evolution in which the ability mentally to represent reciprocal and complementary social relations is given equal status with the cognitive skills of causal inference and logical deduction, and with physical processes” (Reynolds 1993: 423).

Both Goody (1995a) and Levinson (1995a) go further, placing central importance on the mental modeling of social relations, and putting “the cognitive skills of causal inference and logical deduction” (at least as these terms are traditionally understood) in the background. Levinson (1995a, especially pp. 230-232) sees human logic as naturally “backwards”, in that we reason (against the syllogistic grain) from a situation to its cause, in our “attribution of intentions” behind actions and events (see below). Discussing the relevance of this model to language and linguistic cognition, Goody (1995a: 18) argues that shared meanings (definitive of language and culture) are necessarily constructed by more than one person, in the same way that “cooperatively planned and executed social action” is, since mutual monitoring and confirmation of common understanding is required for participants to successfully take part. This leads us again to an image of language (especially language use) and thought as inextricably interwoven.

Now consider the use to which Levinson puts this notion of “Anticipatory Interactive Planning” (“AIP”, Goody 1995b: 206), or “interactional intelligence” as he terms it (Levinson 1995a). He argues for an all-pervasive psychological process of “intention-attribution”, such that we view others’ contributions to interaction, and specifically their linguistic utterances, as “puzzles” to be solved. (There is a cultural corollary to this, in religion and cosmology, where intentions are ascribed to symbolized deities and/or features of the natural world, a process of positing an intentional “someone” behind natural or accidental events, which may otherwise be inexplicable.) In discussing models of coordination and communication (e.g. Grice 1957, 1989, Schelling 1960), Levinson notes that these rely on “the recognition of intentions”, i.e. “the need to compute not only from intention to action (as in a logic of action or planning) but also in reverse as it were, from behavior to the intention that lies behind it” (Levinson 1995a: 231). He then points out the “overwhelming problem” with the logic implied, namely that there is “no determinate way of inferring premises from conclusions” (1995a: 231). There is no “logical” explanation to successful communication, Levinson argues, and so he posits the need for “heuristics” (essentially a catalogue of safe/reliable assumptions as to what people “must mean”, according to “normal” communication and “normal” cultural scenarios) (Levinson 1995a: 238, original emphases):

Inferring what is meant in conversation is much more like solving a slot in a crossword puzzle: such inferences have the rather special property of having been *designed* to be solved and the clues have been designed to be just sufficient to yield such a determinate solution. We might dub this central feature of lan-

guage understanding the *whatdoyoucallit* property of language, in honor of the magical efficacy of that phrase.

Levinson refers here to his argument that the common fact of effective communication using terms like *whatdoyoucallit* or *thing-a-me-jig* renders the traditional model of encoded meaning “absurd” (1995a: 232). (This overstated conclusion will be discussed further, below; cf. Enfield 1999) He continues (1995a: 238):

Linguistic communication is fundamentally parasitic on the kind of reasoning about others’ intentions that Schelling and Grice have drawn attention to... (T)he study of linguistic pragmatics reveals that there are detailed ways in which [the specificity and detail of ordinary communicated contents] can be suggested — by relying on some simple heuristics about the ‘normal way of putting things’ on the one hand, and the feedback potential and sequential constraints of conversational exchange on the other.

The reported findings apply to speaking as much as to thinking, in the same way, and to the same profound extent. As Levinson puts it, “linguistic mechanisms are deeply interpenetrated by interactive thinking” (1995a: 233). Language and thought synergistically crystallize in step with the demands and rewards of developing recursively interactional social organization. Again, this carries a strong implication that linguocentrism is not a methodological “problem” to be avoided, but rather a psychological fact to be acknowledged.

Many of the claims made by Goody and Levinson, discussed above, parallel those made earlier this century, for example by Whorf (1956), and Vygotsky (1934). (These scholars were more concerned with the ontogenetic relationship between language and sociocultural organization.) Whorf’s position, as Lee (1996: 29) puts it, was that

phylogenetically the extension of human communicative activity into language has been the factor that gave human cognition itself the impetus which set it apart from that of other species. Ontogenetically... it is the acquisition of language in childhood which mediates the emergence of higher intellectual functioning in human beings through the incorporation of linguistic processes in cognition in the course of socialization.

With direct relevance to the present question of linguocentrism, and the anti-linguocentrist’s assumption of methodological separability of language, thought, and culture, Lee describes the implications of Whorf’s insistence on the “intrinsically linguistic” character of thought (Lee 1996: xiv):

[Human thought] is a product of socialization — of linguistic enculturation. In the realm of linguistic thinking there is little point in arguing about whether language influences thought or thought influences language for the two are functionally entwined to such a degree in the course of individual development that they form a highly complex, but nevertheless systematically coherent, mode of cognitive activity which is not usefully described in conventionally dichotomizing terms as either ‘thought’ or ‘language’.

Sapir similarly regarded language as “a prepared road or groove” for thinking (1921: 15), and “against the trend of his times, [he] moved increasingly away from viewing language, culture, and personality as autonomous systems” (Hill and Mannheim 1992: 385). Foley (1997: 198) puts it thus: “For Sapir, it is only in language that the full potential of thought is unfolded; true conceptual thinking is impossible without language because it is symbolically mediated and not a simple mapping of sensible experience, a position remarkably prescient of Geertz (1973: 76)”⁹ (cf. also Noble and Davidson’s position, above).¹⁰

According to views described in this section, language has played, and plays, a crucial role in both the phylogenesis and ontogenesis of human intelligence, and is central to the kinds of thinking we incessantly engage in. If these views are correct, then a linguocentric account is a natural one. Let us now turn to further arguments in defense of linguocentrism, this time from a purely synchronic perspective.

5. The inescapability of (meta-)language: Wierzbicka’s position

In the introduction to her (1992) book *Semantics, Culture, and Cognition*, Wierzbicka draws from the work of Boas, Herder, Humboldt, Leibniz, Locke, Sapir, and Whorf, in arguing for principles, both theoretical and pragmatic, behind her “Natural Semantic Metalanguage” (NSM) approach to semantic and cultural description (cf. Wierzbicka 1996 and references therein). She adopts a straightforward position with regard to the relationship between language and culture (1992: 22):

Languages are the best mirror of the human mind (Leibniz 1949[1765]: 368), and it is through them, I believe, that we can identify the ‘alphabet of human thoughts’, that is, the basic conceptual framework with which human beings operate. At the same time, languages are the best mirror of human cultures, and it is through the vocabulary of human languages that we can discover and identify the

culture-specific conceptual configurations characteristic of different peoples of the world.

Wierzbicka's combination of universalism and relativism amounts to a passionate stance against monolingualism, but a position of equal conviction in defense of the legitimacy of linguocentric methodology. Crucial to her approach is the notion that language provides us not only with the most reliable window on human culture and thought, but the only reliable one. (Cf. Whorf's (1956[1941]: 252) comment that "thinking is most mysterious, and by far the greatest light upon it that we have is thrown by the study of language".) A common rejoinder (cf. Lenneberg and Lucy, above) is that this approach merely *assumes* that language reveals cognitive and cultural categories, but does not *demonstrate* this in language-independent terms (precisely the basis of the general criticism of linguocentrism this essay began with). Wierzbicka's reply is that there is no way to approach the description of linguistic meaning, conceptual structure, or culture, which does not rely on the use of language. Adequate description of cultural practices, symbolic behavior, ritual, belief, and so on, is only possible in linguistic terms. Exactly the same is true when one attempts to describe aspects of cognition, such as the elucidation and description of our perceptual capacities (for example, recognition of visual or spatial distinctions), experimental testing of our abilities to manipulate logical categories or perform categorization tasks, facts about neurological architecture, and so on. Wierzbicka's position holds that the usual treatment of these matters remains dependent on language (and, in practice, excessively dependent on *a* language – usually English).

Even the most "obvious" universals of experience, namely biological and environmental phenomena, do not provide a language-free yardstick or "etic grid", which may serve as a calibrating *tertium comparationis*. Fearing (1954: 57) notes Murdock's (1945: 137) position that

certain recurrent stimulus patterns... are universally experienced and may be associated with cultural responses. There are in nearly all cultures, [Murdock] says, beliefs about, and responses to, items such as 'the sun and the moon, darkness, rain, thunder, the ocean, mountains, streams, blood, hair, the heart, the genitals, sneezing, breathing, menstruation', and many similar phenomena.

However, this misses a crucial distinction between actual *things* in the world (*reference*), on the one hand, and *concepts* denoted by words in languages, on the other (*sense*). *Sun* and *moon*, to pick two of Murdock's examples, are *English* words, denoting *concepts in the minds of English speakers*, not actual "environmental phenomena". It is not the case that all

languages have words which mean the same (i.e. denote the same concepts) as *sun* and *moon*, not to mention *darkness*, *rain*, *thunder*, and so on (cf. Nida and Taber 1969, Wierzbicka 1992: 7-8).

Wierzbicka's position, accepting our "confinement" to language, might suggest an overly extreme form of relativism. Given the vast mutual unintelligibility of languages, if we truly were "confined" to our individual languages, "drawn in" by the "circle" of language, as Humboldt put it (1903-36[1841-52], v7: 60, quoted in Wierzbicka 1992: 3), then we could never know or understand the world of our fellow humans. But for Wierzbicka it is not "languages" (e.g. Russian, Lao, or English) which ultimately constitute the bedrock of our linguistic/conceptual/cultural capacity, but the universal base of "language", i.e. that which is common to all languages, and independent of any particular one. She argues categorically against the strong relative position, such as that of Grace, who "claims that... the worlds of meaning associated with different language-culture systems are incommensurable because there is no 'common measure' (Grace 1987: 7)" (Wierzbicka 1992: 21). While Wierzbicka asserts that lexicons of the world's languages are indeed "full of" concepts which are "utterly alien to our own" (1992: 20), she strongly defends the existence of a common measure, maintaining (a) that there is a minimal subset of natural language which is truly universal, and (b) that all concepts in natural language can be expressed and translated at this level (i.e. in paraphrase) in every language. Thus, Wierzbicka's relativism is fully consonant with a Boasian commitment to the "psychic unity of humanity".

In her own words (Wierzbicka 1992: 20, original emphasis):

Anyone who has undertaken [a rigorous comparison of conceptual systems embodied in the lexicons of different languages]... must conclude, I think, that the lexicons of different languages do indeed suggest different conceptual universes, and that not everything that can be said in one language can be said (without additions and subtractions) in another, and that it is not just a matter of certain things' being *easier* to say in one language than in another. On the other hand, there are good reasons to believe that every language has words available for the basic human concepts, and that everything that can be expressed at all can be expressed by combining those basic concepts in the right way. In this sense — but only in this sense — anything that can be said in one language can be translated, without a change of meaning, into other languages.^{11,12}

Thus, "thought" for Wierzbicka is conceptualization. Conceptualization is embodied in terms of semantic primes, which are not imaginary or arbitrary, but universally lexicalized and empirically verifiable. The inseparability of language and conceptual thought is inherent, if not axiomatic, in the model.

In more specific terms, Wierzbicka's approach can be sketched as follows. Some (60 or so) of the concepts that lexemes and other linguistic categories represent are semantically simple, and self-explanatory. They are presumed innate, since they are both universal and irreducible. All languages lexicalize these concepts, and allow a certain common range of combinatorial possibilities, so that at this level precise translation between languages is possible if unidiomatic. This is argued to be the level at which semantic and conceptual structure is universal (for empirical work in this area, cf. Goddard and Wierzbicka 1994, Forthcoming). The overwhelming majority of concepts named in languages, however, are not simple, but are complex configurations of the simple concepts. There is no reason to expect that any particular configuration of simple elements which is formally signified (i.e. lexicalized or grammaticalized) in one language will find direct signification in another. Further, it is hypothesized that the specific configurations that *are* found (especially where certain semantic themes are ubiquitous and/or highly elaborated in a language) are very often those that reflect the cultural preoccupations of a speech community.

Focusing now more on the relationship between language and culture, we may now consider Wierzbicka's theory of "cultural scripts" (Wierzbicka 1994a, b, cf. also Goddard 1997a). Her claim is that "[d]ifferent ways of speaking, different communicative styles, can be explained and made sense of, in terms of independently established different cultural values and cultural priorities" (Wierzbicka 1994b: 69). Her Natural Semantic Metalanguage is meant to serve as a "language-independent 'culture notation', suitable for representing the 'cultural unconscious'... (T)he use of this metalanguage can clarify differences between cultures, including those most directly affecting communicative styles" (Wierzbicka 1994b: 71).¹³ The scripts are not necessarily embodied in any lexical material (although they are often found in the semantic structure of "cultural keywords", cf. Wierzbicka 1997), but can be extrapolated on the basis of evidence from lexical and grammatical semantics in a language, structures of communicative practice in a language community, and other sources of ethnographic evidence.

Compare proposed scripts for Anglo-American and Japanese culture, which are excellent examples of starkly contrasting principles in the "grammars" of these cultures, namely Anglo-American "individualism" and "tolerance" versus Japanese "harmony" and "non-confrontation" (see Wierzbicka 1994b: 72-3 and *passim* for discussion):

Anglo-American:

- a. it is good to say to someone what I think
- b. if someone says to me something like this: "I think this"
I can say something like this to this person: "I don't think the same"

Japanese:

- a. if someone says something to me about something
I can't say something like this to this person: "I don't think the same"
- b. ...it is good to say something like this to this person: "I would say the same"

The principles embodied in these scripts account for a range of phenomena, including well-known difficulties of cross-cultural communication. Wierzbicka summarizes thus (1994b: 83):

(E)very society has a shared set of cultural norms, norms which appear to be quite specific and which can be stated in the form of explicit cultural scripts.

Cultural scripts are above all concerned with things that one can or cannot say, things that one can or cannot do, and also things that "it is good" to say or do. They constitute a society's unspoken 'cultural grammar' (whose parts can surface, at times, in open discourse, in the form of proverbs, common sayings, popular wisdom, common socialization routines, and so on).

Importantly, Wierzbicka does not simply see the scripts as merely convenient descriptive devices (1994b: 83):

The remarkably good match between scripts written in lexical universals and generalizations emerging from ethnographic and linguistic data suggests that scripts of this kind may not only be useful theoretical constructs but also have genuine psychological reality.

Also note with respect to cultural scripts, that they are not confined to representation of norms of discourse, but may also describe "common knowledge" ('people do this', 'people (don't) want things like this to happen', 'this can happen if you do that', and so on), and especially "values" and "virtues" (i.e. what kinds of actions, events, and thoughts are 'good' or 'bad'). Positing a set of "scripts" does not imply that members of a cultural group are necessarily committed personally to the said values, or that they necessarily abide by the said norms. But it does entail that members of a culture are aware that these scripts represent the *default* set of representations a representative member most reliably assumes (and, in turn, one must

assume others assume, and, further still, one must assume others assume that one assumes oneself (cf. D'Andrade 1987).

An important linguocentric aspect to ethnographic evidence is the level of cultural knowledge embodied in the structure of the lexicon. Wierzbicka assigns a great deal of "folk knowledge" to the semantics of concrete lexical structure (but while maintaining a clear boundary between dictionary versus encyclopedic information; Wierzbicka 1996: Chapter 11, cf. Haiman 1980, Langacker 1987). According to Apresjan, "(t)he task of a lexicographer [...] consists of discovering the naïve picture of the world hidden in lexical meanings and presenting it in a system of definitions" (Apresjan 1992, cited in Wierzbicka 1996: 338). Similarly, Keesing (1979) points out that "knowledge of the world" or "cultural heritage" does not reside in the "residual wilderness" where many linguists tend to relegate them, but rather may be found in the lexicon, a rich resource of cultural knowledge. Consider, for example the Lao expression *khaw-niaw* 'glutinous rice', which encodes not only the meaning of 'glutinous rice' (as opposed to 'non-glutinous rice'), but also, among other things, that it is prepared by steaming, that it is eaten with bare hands, and that as a staple food it is definitively Lao. To be unaware of these aspects of glutinous rice as it is used in Laos is to be unaware of the full meaning encoded in the expression *khaw-niaw*.

The outcome of Wierzbicka's overall approach is that the study and comparison of culture and conceptualization cannot be anything *but* linguocentric. According to her arguments, linguistic evidence, based (crucially) on explications done exclusively in terms of lexical and semantic universals (thus ensuring against monolingualism), is the most reliable, verifiable, and persuasive evidence for empirical studies into linguistic anthropology in general, and linguistic relativity in particular.

Not surprisingly, then, Wierzbicka calls for urgent priority to be given to establishing the universal primitive metalanguage (the "universal grammar and lexicon"), and using it to explicate complex concepts in languages (1992: 10):

I believe that the final identification of the universal set of semantic primitives (that is, of the 'alphabet of human thoughts') is an urgent task of linguistic semantics, with vital consequences not only for linguistics but also for cognitive science and for cultural anthropology, as a universal and 'culture-free' analytical framework is indispensable for a rigorous analysis and comparison of meanings encoded and conveyed in language.

In closing this section, it is worth digressing on the unusual place of Wierzbicka's work in the field of research on linguistic relativity and other

areas of linguistic anthropology. Her work represents surely the most extensive and broad-reaching individual contribution of empirical research into issues related directly to linguistic relativity (especially the task of seriously attempting to establish a system of semantic/conceptual universals which may be used to calibrate languages for comparison), with a prolific output of work including over ten books and many dozens of articles, over more than thirty years (cf. Wierzbicka 1992, 1996, 1997, and copious references therein). Wierzbicka has consistently placed her work in the context of pioneers of the field, such as Boas, Herder, Humboldt, Sapir, and Whorf. It is thus extraordinary that among some of the most authoritative recent texts on this topic (Gumperz and Levinson 1996, Lee 1996, Lucy 1992a, b), Wierzbicka is not credited with a single bibliographical reference, nor a mention in an index. Foley (1997), a recent comprehensive survey of the field of Anthropological Linguistics, does mention her work in a number of contexts, but in over 75 pages devoted to the subject of relativism in particular, no reference to her work appears.¹⁴ If Whorf was unjustly “misread, unread, and superficially treated” (Lee 1996: 14), Wierzbicka has been unjustly ignored by many. A classic example may be found in a section of Levinson (1996) entitled “Language universals and semantic and conceptual structure”, which aims to set a general context on “the relevant traditions of research” under the said rubric. It is extraordinary that Wierzbicka’s work (let alone that of her students and colleagues) is so glaringly ignored, despite her having conducted thirty years of intensive and extensive research on this precise topic.

6. The separation (or not) of the study of “language” and “culture”

The strongest version of an anti-linguocentric view would rule out altogether the use of linguistic evidence in ethnographic work. To be sure, the objection to linguocentric methodology (e.g. Lucy 1996: 44, 1992a: 70) has been raised within the specific context of empirical investigation into linguistic relativity and related issues, but nonetheless the claim has the logical consequence that evidence from language is illegitimate in ethnography in general (since if it cannot be admissible in this context, why would it be admissible elsewhere?). This seems not only counterintuitive to the average anthropologist, but it also runs against the wisdom of many of the pioneering and historically preeminent scholars in linguistics and anthropology. It is intuitively clear to many that language and culture show too much overlap to be neatly separable for any purposes. Indeed, to suggest that features of one might not

embody features of the other would seem much more far-fetched than to regard as axiomatic their relatedness.

Many have commented on the co-dependence of the research concerns of linguistics and anthropology (cf. Bickel Forthcoming). The essential thread of this methodologically significant observation is that the idea of studying either language or culture to the exclusion of the other is doomed to failure, and that not only does each inform the other, but they are quite embedded in one another. This accords with the linguocentric view of culture (and culture-centric view of language) being explored here.

Pioneering anthropologists recognized the interdependence of linguistic and cultural description, for example Malinowski when he said that "(l)inguistics without ethnography would fare as badly as ethnography without the light thrown on it by language" (Malinowski 1920: 78, quoted in Henson 1971: 3). Similarly, Sapir, in considering "the value of linguistics for anthropology and culture history", is reported by Landar (1966: 22) to have "criticized attempts to 'master a primitive culture' without knowledge of its language as 'amateurish'".

This echoed the earlier view of Boas, who argued that "language seems to be one of the most instructive fields of inquiry in an investigation of the formulation of the fundamental ethnic ideas" (Boas 1974[1911]: 28). Boas strongly criticized the then apparently standard practice – things have fortunately changed since then – of engaging in ethnographic fieldwork without knowledge of the subjects' language (Boas 1974[1911]: 20):

A student of Mohammedan life in Arabia or Turkey would hardly be considered a serious investigator if all his knowledge had to be derived from second-hand accounts. The ethnologist, on the other hand, undertakes in the majority of cases to elucidate the innermost thoughts and feelings of a people without so much as a smattering of knowledge of their language.

Instead, he pointed to the crucial importance of linguistic knowledge and linguistic description within the work of cultural description (Boas 1974 [1911]: 30-31, emphasis added):

(F)rom practical, as well as from theoretical, points of view, the study of language must be considered as one of the most important branches of ethnological study, because, on the one hand, a thorough insight into ethnology can not be gained without practical knowledge of language, and, on the other hand, *the fundamental concepts illustrated by human languages are not distinct in kind from ethnological phenomena.*

Boas thus explicitly placed the study of language squarely within the study of culture (Boas 1974[1911]: 23):

If ethnology is understood as the science dealing with the mental phenomena of the life of the peoples of the world, human language, one of the most important manifestations of mental life, would seem to belong naturally to the field of work of ethnology...

Hill and Mannheim (1992: 385) note that the work of Boas, and especially that of Sapir and Whorf after him, was interpreted somewhat differently by a “scholarly folklore” which emerged after World War II, treating “language, thought, and meaning as three discrete, identifiable, and orthogonal phenomena”. They argue that this three-way separation “rests on a category error that identifies language, thought, and culture with the institutional fields of linguistics, psychology, and anthropology respectively. Such an error does considerable violence to the integrative thrust of the program Sapir and Whorf shared with Boas as they worked with him to create the modern disciplines of anthropology and linguistics” (Hill and Mannheim 1992: 385).

Since then, Keesing, in a discussion of “linguistic knowledge and cultural knowledge”, has warned against factoring out “culture” from an adequate description of linguistic structure (Keesing 1979: 15):

(A)ttempts by linguists to distinguish native speakers’ knowledge of their language from their “knowledge of the world”... obscure the nature of cultural “knowledge of the world” in treating it as residual and unstructured; and that in doing so they render opaque some of the very linguistic facts that are supposed to be rendered manageable. The illusion that linguistic knowledge can be analyzed as a separate formal system can be sustained most easily if the linguist analyzes a European language: the linguist takes most of the same things for granted as the users of that language, and hence need not render them explicit. And the illusion is most effectively dispelled by examining a language spoken in a very different kind of world.

Thus, for Keesing, language and culture are alike in epistemological terms (Keesing 1979: 15, original emphases):

“a culture” is... a system of *knowledge*, a composite of the cognitive systems more or less shared by members of a society.¹⁵ It is not, in this view, a way of life; it is not a system of behavior. Linguistic knowledge is thus *part of*, and on the same epistemological plane as, cultural knowledge.

Thus, Keesing argues for complementarity of linguistic and cultural description, anticipating that “ethnographies of cultural knowledge and linguistic grammars will increasingly emerge as complementary sides of a single enterprise” (Keesing 1979: 34).¹⁶

More recently, Penny Lee (personal communication) has advocated use of the term “reciprocal engagement” (rather than “influence”) to describe the relationship between the grammatical structuring of meaning, on the one hand, and the cultural preoccupations of the speakers of a language, on the other. For her, there couldn’t possibly *not* be a “relationship” (Penny Lee, personal correspondence):

(C)hildren are born into languaging environments and... they become enculturated over time. For them cultural preoccupations are significantly *revealed* through various language practices ranging from ritual procedures, highly symbolic key terms as centers of conceptual and explanatory focus, and explicit explanation of cultural meanings, to day to day unconscious use of language patterns that manifest, communicate, and maintain cultural preoccupations, teaching them implicitly in the course of ordinary speaking and thinking.

This enculturation through “languaging” makes language a “condition of culture”, as Lévi-Strauss put it, “because it is mostly through the language that we learn about our own culture” (Lévi-Strauss 1963: 68). Consider also Quinn’s claim, arising from work on the American cultural model of marriage and the “scenario words” which people use to organize their knowledge of such models, that “cultural understanding comes to be shared... through learning to speak a common language” (Quinn 1985: 292, cited in Keller and Keller 1996: 126).

In sum, the comments discussed in this section support the claim that language and culture are not only tightly bound, but inextricably interrelated. It is little wonder that so many linguistic and anthropological studies have failed to maintain a tight distinction between “language”, “thought”, and/or “culture”.

7. Implications for theory of language, culture, and thought, and for research on linguistic relativity

Discussion in preceding sections suggests that it is unrealistic to expect to be able to divorce “culture” and “thought” from “language”, in any attempt to independently determine whether or not there is a relationship between them. Rather, these distinctly human phenomena are apparently not neatly separa-

ble, and since language is the primary mode of transmitting culture and facilitating conceptual thought, then linguocentrism is natural and inevitable. As Hoijer has noted, a great difficulty of “stating these problems and in finding means of solving them” is “the fact that we must talk about questions involving language in a particular language” (Hoijer 1954: 279). Indeed, there is no getting away from “language” in the transmission, discussion, and/or consideration of concepts and ideas, nor is there any escape from the fact that concepts and ideas are habitually transmitted, discussed and/or considered in particular cultural contexts. What is most important, and certainly most urgent, in empirical work on linguistic relativity and related issues, is that monolingualism – a form of ethnocentrism – can and must be avoided, since it is this which has the potential to confound anthropological studies, and truly obfuscate any attempt at understanding linguistic relativity. We are obliged to use concepts signified by words when we describe and elucidate languages and cultures, but we can do our best to avoid using words which signify non-universal concepts, which would, ipso facto, bias the analysis from the start, wrongly attributing concepts to other languages and cultures.

The criticisms we began with, above, fault linguocentric methodology for its *assumption* of the relatedness of language, thought, and culture. This very stance can be criticized in turn for *its* assumption that the three can be isolated from each other at all. Lee (1996) goes to some length to stress this point, and is especially concerned about what she sees as a common flawed reading of the so-called Whorfian “hypothesis”, as methodologically dependent on the separation of language and thought, in order to test for influence between them. In the context of Sapir’s notion of “language and thought as interpenetrative at least, if not one and the same function in cognition”, she argues that “[s]imple causal statements about influences... become problematic in such contexts” (Lee 1996: 69). According to Lee, “Whorf operated from a notion of *language in cognition* rather than the more conventional assumption that language and thought in all important respects are separate human functions” (1996: 65, original emphasis). For Whorf, she says, “language and thought are not always or necessarily separable phenomena” (1996: 30), and “what is conceptual is inseparable from what is linguistic” (1996: xv).

A corollary of this general point is that a theory of language must therefore incorporate a theory of culture (cf. Keesing 1979, also Bickel Forthcoming). This is attainable by the approaches of both Levinson (whose interpretative/inferential heuristics I would consider at the same time both linguistic and cultural), and Wierzbicka (with cultural scripts – represented in

linguistic terms – forming a crucial component of the native speaker’s repertoire).

Let us consider Levinson’s rather strong position on the role of inference in successful linguistic communication (Levinson 1995a: 232-233, original emphasis):

I can’t say what I mean in some absolute sense: I have to take into account what you will think I mean by it. One can’t *encode* a proposition; all one can do is sketch the outlines, hoping the recipient will know how to turn the sketch into something more precise (if something more precise was intended).

This is only partly true, depending on how one defines “proposition” here. Levinson cannot mean that nothing at all is encoded. Elsewhere, he has rightly supported maintenance of the distinction between “sentence-meaning” (encoded) and “utterance-meaning” (encoded plus inferred in context) (Levinson 1983, 1995b). His own example of *whatdoyoucallit* (1995a: 232) serves as a nice illustration:

- A: Where the hell’s the whatdjacallit?
B: Behind the desk.

As readers, out of context, we have no idea what the referent of *whatdoyoucallit* is, but we assume that A assumes it is obvious to B. In fact, A only gets away with saying *whatdoyoucallit*, because s/he figures B knows what s/he must be thinking about. Levinson likens the word to a “blank” in a crossword puzzle, the answer to which is inferred purely by “intention-attributing heuristics” (discussed above). But unlike a blank, the word *whatdoyoucallit* does have specifiable semantic content, along the following lines:

- whatdoyoucallit*
a. something
b. I can’t say the word for this thing now, because I can’t think of it
c. I say: *whatdoyoucallit*
d. I think you know what I’m thinking about

Even in a *whatdoyoucallit* expression, there *is* encoded meaning, *as well as* some inferential process leading to successful communication (i.e. the addressee determining reference in this case). This is further supported by the contrasting distribution of similarly “vacuous” expressions like, say, *you-know-what* (see Enfield 1999).

Levinson's "heuristics" are kindred to Wierzbicka's "cultural scripts". These may be collectively referred to as (*cultural*) *premises*, instrumental in the ever-present inferential sense-making process of *cultural logic*. Levinson's speculations on culture and cross-cultural (mis-)understanding are revealing (Levinson 1995a: 240-241).

(W)hat else is Culture, one might ask, other than a set of heuristics for intention-attribution? That clearly encompasses language usage, social roles..., and a host of heuristics for the interpretation of mundane and artistic productions. And why else do we feel so at sea in an alien culture? We may understand the coded content of verbal interaction and fail to understand the import, observe behavior but fail to comprehend its wellsprings, see mumbo-jumbo where we know there must be sense, and so on.

Levinson views what is encoded in "sentence-meaning" as minimal and underdetermined, which allows him to make this claim that we may "understand the coded content" of a foreign language, and yet "feel at sea" as we miss the real "import" of some expression. But a view which acknowledges a richer encoded semantics (along with the vast "content" imported by millions of non-linguistic signs which always accompany linguistic utterances) challenges the assumption (in the above quote) that the "coded content" is actually fully understood at all, and would instead attribute this "at sea" feeling to an *imperfect* and/or *incomplete* understanding of the coded content itself.

Consider again the example of Lao *khaw-niaw* 'glutinous rice'. The rich semantics of this term are reflected elsewhere in the language, both in lexical semantics, and in common contextual inferences. The verb *pan* 'to mold with the hands' may also mean 'eat', via a metonymy associated with the default Lao eating scenario, namely the action of 'molding' glutinous rice into manageable sized lumps before eating each mouthful. Thus, one may be asked (usually as a greeting) *pan khaw lèw bòò* [mold rice finish Q?] 'Have you eaten yet?' (literally, 'Have you already molded rice?'). More of the complex idea behind the term *khaw-niaw* 'glutinous rice' emerges from a wealth of associations between *khaw-niaw* and "being Lao", whereby in Lao society one constantly hears theories attributing various alleged traits of Lao people (from "Lao people are fit and strong" to "Lao people are of small stature" to "Lao people are sleepy and lazy") to the effects of the staple diet. Certain minorities dwelling in Northeast Thailand and Southwest China are considered "*really* Lao" by virtue of their habit of eating glutinous rice as a staple. The import of such folk theories would be obscured if one did not understand that *khaw-niaw* as a staple diet is held to be uniquely and definitively "Lao". Thus, the uninitiated diner who attempts to use cutlery to eat glutin-

nous rice will certainly attract some laughs, and their failure to understand the import of their hosts' mirth would be due not to their ignorance of the physical referent, the substance 'glutinous rice', but to their ignorance of important aspects of the *idea* encoded in the Lao expression *khaw-niaw*. In this case, this "at sea" person simply *does not* fully grasp the "coded content" of the expression.

In relation to "utterance-meaning", Levinson argues for a "set of principles" for communication, in accordance with his long-standing interest in the Gricean program. This is a promising area where the methodological insights of Wierzbicka's approach could contribute to a more rigorous formulation of Gricean "utterance-type" heuristics (Levinson 1995a: 233). Indeed, this represents another level of linguistic structure which may be the focus of research into linguistic relativity, with the question of what is universal (i.e. what "conversational maxims" are found in every language), and what is language/culture-specific (i.e. what "maxims" turn out to be specific only to certain languages and cultures, approximating Wierzbicka's "cultural scripts"). (Cf. Gumperz and Levinson 1996: 8.) In other words, we may distinguish between inference-guiding premises which are catalogued (personally, by individuals) universally, and those which are catalogued non-universally (i.e. cultural premises, restricted to particular groups).

Thus, I propose a model of linguistic and cultural meaning based on individually embodied premises (concepts/knowledges/ideas/meanings) conventionalised by common social focus on mediating semiotic structures, and consisting in part of the following descriptive/analytic components:

- (a) Universal encoded semantics
(semantically simple lexical and grammatical universals);
- (b) Non-universal encoded semantics
(complex semantic structures, non-universal);
- (c) Universal premises for contextualised inference
(akin to "conversational maxims");
- (d) Non-universal premises for contextualised inference
cultural premises.

Points (a) and (b) refer to signs with effectively fixed semantics, and the concepts these signs signify. (Explication of the meanings of cultural forms such as rituals and artifacts would come under [b].) Points (c) and (d) refer to reliable commonly assumed premises for interpreting these signs in con-

text. While the culture-specific knowledge contained in cultural premises (i.e. in [d]) accounts for a range of crucial defining features of “a culture”, recall that there is also a huge amount of culture-specific knowledge and information encoded in the lexicon, particularly in the concrete vocabulary (i.e. within [b], and feeding into [d]). Theoretically, (a) provides a “common measure” or system of calibration for explication and comparison of (b-d) across languages and cultures. A unified framework consisting of the complementary and interlocking levels (a-d) would enable us to describe the grammar of both language *and* culture, balancing the co-dependent components of public (social/semiotic) phenomena and the private (physiological/psychological) sphere.¹⁷

8. Conclusion

Evidence and arguments from a range of perspectives conspire to significantly weaken the claim that linguocentric methodology is inherently inadequate or flawed, or that it cannot provide reliable or persuasive results in empirical work in linguistic anthropology, and in particular on linguistic relativity and related issues. It is unrealistic to demand that studies concerned with the language-culture-thought relationship should seek exclusively to demonstrate “correlation of a language system with a pattern of non-linguistic belief and behavior” (Lucy 1996: 44), since there are many reasons to believe that the “language system” on the one hand, and “belief and behavior” on the other, cannot be separated in any principled way. Firstly, recent work suggests that the language faculty has evolved synergistically with our general cognitive capacities for (and the demands of) complex and interactive social organization, strongly suggesting that language and thought are mutually interconstituted (both phylo- and ontogenetically). Secondly, culture crucially involves a great deal of semiotic phenomena, and language is the dominant human semiotic system. The establishment of shared-ness of the ideas and significances which make up culture are heavily dependent on language in socialization, and in ongoing daily maintenance. A third point is methodological: Whatever the psychological reality of thought and culture in relation to language, it is only in terms of language and linguistic categories that these can be discussed, analyzed and compared by researchers. The methodological consequence of this is that monolingualism is the flawed approach to be avoided. And this can be most effectively achieved (at least in formal description) via a metalanguage based on semantic and conceptual universals (or at least maximally near universals).

I have argued in this essay that linguocentrism is a fact of life. But it must be stressed that licensing linguocentric methodology does not imply that we may be lazy or complacent in our research into this necessarily sensitive topic. The cultural and/or cognitive import of linguistic evidence can only be assessed on the basis of well-justified semantic explication, done in clear and simple, non-monolinguo-centric, and therefore non-ethnocentric terms. (And naturally, circularity in argumentation – not entailed by linguocentrism – must be avoided.) In the same spirit as Lucy and Lenneberg's cautions in the name of rigor and well-justified argumentation, I urge that it is *monolinguo-*centrism which must be urgently and heartily eradicated.

In doing research on linguistic relativity, once we acknowledge the intrinsic linguocentricity of cultural and cognitive phenomena, and most importantly of their description and analysis, there is less interest in proving *that* there is a relationship (of "influence" or whatever) between language, thought and culture, but rather in uncovering and mapping out the dominant and/or recurring conceptual themes that populate the conceptual/symbolic systems of various culture-language complexes. This overall patterning of prevalent ideas in a system may be revealed not only by speakers' practices, but also by their habitual fashions of speaking – their idioms, metaphors, lexicalization patterns, and grammatical fixtures. The conceptual themes we find elaborated are at the same time, and equally, linguistic *and* cultural.

Notes

1. This essay was written in part while on a National Visiting Scholarship at the Research School of Pacific and Asian Studies, ANU, Canberra, which support is gratefully acknowledged. I would also like to acknowledge extensive and invaluable comments made by Cliff Goddard and Penny Lee throughout the development of this work. I have also gratefully received valuable comments from Bill Foley, Helen Fraser, Colin Harrison, Andy Pawley, Alan Rumsey, and Anna Wierzbicka. Naturally, none of them may be blamed for shortcomings of this work.
2. An expression *x-centrism* may be interpreted as either: "bias due to arbitrarily privileging *x*, as opposed to what is not *x*" (as in *anthropocentrism*); or "bias due to arbitrarily privileging some (kind of) *x*, as opposed to other (kinds of) *x*'s" (as in *ethnocentrism*). The term "linguocentrism" fits the first pattern, denoting bias due to privileging language (as opposed to what is not language). (The term *glottocentrism* has a standard use in semiotics, referring to treatment of language as the central or fundamental semiotic system, with zoological, biological and other non-linguistic semiotic phenomena treated as secondary; cf. Deely 1990, Sebeok 1975.) It is useful to also have a term corresponding to the second pattern, denoting bias due to privileging some language (e.g. English), as opposed to other languages (as in *Anglocentrism*). For this meaning, I will use the term *monolinguo-centrism*.

3. There is by no means a consensus on this claim (cf., for example, Pawley 1994).
4. Noble and Davidson are clearly using the term "symbol" in a different way to, say, Sebeok, for whom "animals undoubtedly do have symbols" (1994: 36). For Sebeok, however, it is the *arbitrariness* of signs in animal discourse that qualifies them as "symbols" (cf. Sebeok 1975: 90). Noble and Davidson would not consider Sebeok's example of "tail work in dogs, cats, and horses" (1994: 36), as "symbolic" since, for one thing, signifiers here are not understood to be freely substitutable. There is of course a danger of circularity in a view of symbols as crucially involving language, namely that if symbolism is taken to be the defining property of language, one must take care not to then define "symbol" via language. (One would also be in danger of committing the sin of "glottocentrism": Sebeok 1975: 90.)
5. Deacon, however, conceding that chimps, at least, have displayed behavior that is "clearly symbolic" (Deacon 1997: 84), supports an argument that human language is unique by pointing to the interesting fact that there are no "simple languages" — i.e. like human language but with simple grammar and simple vocabulary — among animal communicative systems (1997: 39ff).
6. I am not only referring to symbolism as in aspects of more stereotyped elaborate rituals in culture, but also (and more importantly) to the conventionalized import of more subtle rituals in everyday interaction (Goffman 1967, 1971), as well as the potent meanings of "cultural keywords" in languages (Wierzbicka 1997). Much is significant, in even our most mundane everyday practices.
7. Thanks to Cliff Goddard for directing my attention to this quote.
8. It is sometimes claimed — at least in personal discussion among anthropological linguists — that there cannot be "rules" to culture, and even that it is impossible to posit conceptual representations akin to rules. Upon reading sources of such assertions, however (e.g. Taylor 1993), the claim is clearly not that rules (i.e. as conceptual representations) "cannot exist", but rather that it is possible to behave according to "unarticulated background" (Taylor 1993), that is, "knowledge" embodied through practice but never articulated, and therefore never brought into the realm of conscious "representation". The existence of "unarticulated background" in no way contradicts the assertion of conceptual or other representations which serve effectively as cultural "rules". As Leach (1976: 10) put it, "it is just as meaningful to talk about the grammatical rules which govern the wearing of clothes as it is to talk about the grammatical rules which govern speech utterances".
9. There remain, however, conflicting interpretations regarding Sapir's precise position as to whether "thought" and "language" are separable/separate or not (cf. Lee 1996: 80-1, Lucy 1992a: 17-24).
10. In the context of this discussion of the relation between "thought" and language", a certain point is worth clarifying. Often an assumption is made, as for example by Keller and Keller (1996), that "linguistic determinism" is necessarily relativist, entailing that "all thought is verbal or governed by patterns codified *in the language one speaks*" (Keller and Keller 1996: 115, emphasis added). But if we can establish patterns of linguistic codification which are *universal* (i.e. semantically isomorphic across languages — codified in *everybody's* language), then there can very well be patterns of thought or conceptualization which are constituted by linguistic structure, but *not* tied to structures exclusive to "the language one speaks" — linguistic determinism of a universal nature.

11. Although Wierzbicka specifically mentions "lexicons" of different languages here, her comments extend to all semantic structures, including the meanings encoded in grammatical morphemes and complex syntactic constructions (Wierzbicka 1988). Cf. Hopper (1998), who questions any inflexible distinction between putatively separate spheres of lexicon and grammar (see also Goddard 1997b).
12. Wierzbicka's claim that exact translation is possible is a far cry from the likes of Jackendoff's glib statement that "pretty much anything we can say in one language can be translated into any other" (Jackendoff 1994: 185). See Chafe (This volume) for criticism and discussion of the latter.
13. "Language-independent" here means "independent of any particular language", rather than "independent of language".
14. This can presumably be accounted for by the nature of "theory groups", and the practices of mutual reference and ritual citation associated with the clustering and social cohesion of researchers (cf. Murray 1994). While this is perhaps unsurprising, given that "science" is (merely?) a cultural practice, with its own fashions, sub-cultures, and in/out-group dynamics, it is certainly unfortunate.
15. While it is important to acknowledge the currently popular position that the idea of "a culture" as a "monolithic" or "coherent" whole is problematic, it does not entail the extreme position of, say Bickel (Forthcoming), for whom "any notion of 'THE culture of x' is suspicious if at all viable". The anthropologist's notion of "a culture" with "members" need not (often can not, and indeed usually *should* not) coincide with political categories like "Lao" or "Australian", but the idea of coherent groups (whether within multiethnic, creole, or supposedly "pure" cultural situations) united by specific intersubjective cultural assumptions and counter-assumptions can certainly be fruitfully explored.
16. I have argued elsewhere that cultural background is indispensable even for syntax, in that culture-specific background knowledge may guide and/or constrain the assembly of syntactic constructions, and the behavior of certain grammatical combinations (Enfield 1998; cf. Bruce 1988, Durie 1996).
17. The idea of a "grammar of culture" is not necessarily meant here in the same way as it has been used elsewhere (cf. Foley's (1997: 92) description of Lévi-Strauss' "grammar" of culture as "a formal code consisting of symbols and their logical relationships"; also D'Andrade 1995: 249).

References

- Apresjan, Jurij D. 1992. *Lexical Semantics: User's Guide to Contemporary Russian Vocabulary*. Ann Arbor: Karoma. [English version of Apresjan 1974. *Leksiceskaja semantika*. Moscow: Nauka.]
- Bickel, Balthasar. Forthcoming. "Grammar and social practice: on the role of culture in linguistic relativity". In S. Niemeier and R. Dirven (eds), *Explorations in Linguistic Relativity*. Amsterdam and Philadelphia: John Benjamins.
- Boas, Franz. 1974[1911]. "Introduction to the Handbook of American Indian Languages". (Excerpts.) In B. G. Blount (ed.), *Language, Culture, and Society: A Book of Readings*. Cambridge, Mass.: Winthrop, 12-31.

- Bourdieu, P. 1977. *Outline of a Theory of Practice*. Cambridge: Cambridge University Press.
- Bruce, Les. 1988. "Serialization: from syntax to lexicon". *Studies in Language* 12,1: 19-49.
- Byrne, Richard W. 1995. "The ape legacy: the evolution of Machiavellian intelligence and anticipatory interactive planning". In Goody (ed.), *Social Intelligence and Interaction: Expressions and Implications of the Social Bias in Human Intelligence*. Cambridge: Cambridge University Press, 37-52.
- Chafe, Wallace. This volume. "Loci of Diversity and Convergence in Thought and Language".
- Chase, P. G. and Dibble, H. L. 1987. "Middle Paleolithic symbolism". *Journal of Anthropological Archaeology* 6: 263-296.
- D'Andrade, Roy D. 1987. A folk model of the mind. In D. Holland and N. Quinn (eds), *Cultural Models in Language and Thought*. Cambridge: Cambridge University Press, 112-150.
- 1995. *The Development of Cognitive Anthropology*. Cambridge: Cambridge University Press.
- Deacon, Terrence W. 1997. *The Symbolic Species*. New York: Norton.
- Deely, John. 1990. *Basics of Semiotics*. Bloomington and Indianapolis: Indiana University Press.
- Dunbar, Robin. 1993. "Coevolution of neocortical size, group size and language in humans". *Behavioural and Brain Sciences* 16,4: 681-735.
- Durie, Mark. 1997. "Grammatical structures in verb serialization". In A. Alsina, J. Bresnan, and P. Sells (eds), *Complex Predicates*. Stanford: CSLI Publications, 289-354.
- Enfield, Nick J. 1998. "Event typicality and culture-related constraints on serial verb constructions: how syntax is constrained by cultural logic in the grammar of posture in Lao". Paper presented at *Ethnosyntax* workshop, Australian Linguistic Institute, University of Queensland, July 11, 1998.
- 1999. "On the indispensability of semantics: defining the "vacuous"". In J. L. Mey and A. Boguslawski (eds), *'E Pluribus Una' The One in the Many. Festschrift for Anna Wierzbicka*. Rask, Vol. 9/10 March 1999. Odense: Odense University Press, 285-304.
- Fearing, Franklin. 1954. "An examination of the conceptions of Benjamin Whorf in the light of theories of perception and cognition". In H. Hoijer (ed.), *Language in Culture*. Proceedings of the Conference on the interrelations of language and culture. Chicago: University of Chicago Press, 47-81.
- Firth, Raymond. 1973. *Symbols Public and Private*. London: Allen and Unwin.
- Foley, William A. 1997. *Anthropological Linguistics: An Introduction*. London: Basil Blackwell.
- Geertz, Clifford. 1973. *The Interpretation of Cultures*. New York: Basic Books.
- Gibson, Kathleen R. and Ingold, Tim. (eds). 1993. *Tools, Language and Cognition in Human Evolution*. Cambridge: Cambridge University Press.

- Goddard, Cliff. 1997a. "Cultural values and 'cultural scripts' of Malay (Bahasa Melayu)". *Journal of Pragmatics*. 27: 183-201.
- 1997b. "Semantic primes and grammatical categories". *Australian Journal of Linguistics*. 17,1: 1-42.
- Goddard, Cliff, and Wierzbicka, Anna (eds). 1994. *Semantic and Lexical Universals*. Amsterdam and Philadelphia: John Benjamins.
- Forthcoming. *Meaning and Universal Grammar*.
- Goffman, Erving. 1967. *Interaction Ritual*. London: Penguin.
- 1971. *Relations in Public*. New York: Basic books.
- Goody, Esther. 1995a. "Introduction: some implications of a social origin of intelligence". In E. Goody (ed.), *Social Intelligence and Interaction: Expressions and Implications of the Social Bias in Human Intelligence*. Cambridge: Cambridge University Press, 1-33.
- 1995b. "Social intelligence and prayer as dialogue". In E. Goody (ed.), *Social Intelligence and Interaction: Expressions and Implications of the Social Bias in Human Intelligence*. Cambridge: Cambridge University Press, 206-220.
- Goody, Esther (ed.). 1995. *Social Intelligence and Interaction: Expressions and Implications of the Social Bias in Human Intelligence*. Cambridge: Cambridge University Press.
- Grace, George W. 1987. *The Linguistic Construction of Reality*. London: Croom Helm.
- Grice, H.P. 1957. "Meaning". *Philosophical Review*. 66: 377-88.
- 1989. *Ways With Words*. Cambridge, Mass.
- Gumperz, John J. and Levinson, Stephen C. 1996. "Introduction: linguistic relativity re-examined". In Gumperz and Levinson (eds), *Rethinking Linguistic Relativity*. Cambridge: Cambridge University Press, 1-18.
- Gumperz, John J., and Levinson, Stephen C. (eds) 1996. *Rethinking Linguistic Relativity*. Cambridge: Cambridge University Press.
- Haiman, John. 1980. "Dictionaries and encyclopedias". *Lingua*. 50: 329-57.
- Halliday, M.A.K. 1978. *Language as Social Semiotic*. London: Edward Arnold.
- Hanks, William F. 1996. *Language and Communicative Practices*. Colorado: Westview Press.
- Henson, Hilary. 1971. "Early British anthropologists and language". In E. Ardener (ed.), *Social Anthropology and Language*. London: Tavistock, 3-32.
- Hill, Jane H. and Mannheim, Bruce. 1992. "Language and world view". *Annual Review of Anthropology*. 21: 381-406.
- Hockett, Charles F. 1960. "The origin of speech". *Scientific American*. 203,9: 89-96.
- Hoijer, Harry (ed.). 1954. *Language in Culture*. Proceedings of the Conference on the interrelations of language and culture. Chicago: University of Chicago Press.
- Hopper, Paul J. 1998. *Verbs and Their Whorfian Ways: The View from Discourse*. LAUD Series A: General and Theoretical Papers, No. 439. Essen: LAUD.

- House, Juliane. This volume. "Linguistic relativity and translation".
- Humboldt, Carl Wilhelm von. 1903-36[1841-52]. *Wilhelm von Humboldts Werke*. (Edited by Albert Leitzmann.) 17 vols. Berlin: B. Behr.
- Humphrey, N.K. 1976. "The social function of intellect". In P. P. G. Bateson and R. A. Hinds (eds), *Growing Points in Ethology*. Cambridge. Reprinted in R. W. Byrne and A. Whiten (eds), *Machiavellian Intelligence: Social Expertise and the Evolution of Intellect in Monkeys, Apes, and Humans*. Oxford, 1988.
- Hutchins, Edwin, and Hazlehurst, Brian. 1995. "How to invent a shared lexicon: the emergence of shared form-meaning mappings in interaction". In E. Goody (ed.), *Social Intelligence and Interaction: Expressions and Implications of the Social Bias in Human Intelligence*. Cambridge: Cambridge University Press, 53-67.
- Jackendoff, Ray. 1994. *Patterns in the Mind: Language and Human Nature*. New York: Basic Books.
- Keesing, Roger M. 1979. "Linguistic knowledge and cultural knowledge: some doubts and speculations". *American Anthropologist*. 81: 14-36.
- Keller, Charles M, and Keller, Janet Dixon. 1996. "Imaging in iron, or thought is not inner speech". In J. J. Gumperz and S. C. Levinson (eds), *Rethinking Linguistic Relativity*. Cambridge: Cambridge University Press, 115-129.
- Lamb, Sydney M. 1984. "Semiotics of language and culture: a relational approach". In R. P. Fawcett, M. A. K. Halliday, S. M. Lamb and A. Makkai (eds), *The Semiotics of Language and Culture*. London and Dover: Frances Pinter, Vol. 2: 71-100.
- Landar, Herbert. 1966. *Language and Culture*. New York: Oxford University Press.
- Langacker, Ronald W. 1987. *Foundations of Cognitive Grammar*. (Vol. 1 *Theoretical Prerequisites*.) Stanford: Stanford University Press.
- Leach, Edmund. 1976. *Culture and Communication: The Logic by which Symbols are Connected*. Cambridge: Cambridge University Press.
- Lee, Penny. 1996. *The Whorf Theory Complex*. Amsterdam: John Benjamins.
- Lee, Penny. This volume. "When is 'linguistic relativity' Whorf's linguistic relativity?"
- Leibniz, Gottfried Wilhelm. 1949[1765]. *New Essays Concerning Human Understanding*. (Translated by A.G. Langley.) LaSalle, Ill.: The Open Court Company.
- Levinson, Stephen C. 1983. *Pragmatics*. Cambridge: Cambridge University Press.
- 1995a. "Interactional biases in human thinking". In E. Goody (ed.), *Social Intelligence and Interaction: Expressions and Implications of the Social Bias in Human Intelligence*. Cambridge: Cambridge University Press, 221-260.
- 1995b. Three levels of meaning. In Frank R. Palmer, (ed.), *Grammar and Meaning: Essays in Honor of Sir John Lyons*. Cambridge: Cambridge University Press, 90-115.

- 1996. Introduction to Part II. In J. J. Gumperz and S. C. Levinson (eds), *Rethinking Linguistic Relativity*. Cambridge: Cambridge University Press, 133-144.
- Lévi-Strauss, Claude. 1963. *Structural Anthropology*. England: Penguin.
- Lucid, Daniel P. 1977. "Introduction". In D. P. Lucid (ed.), *Soviet Semiotics*. Baltimore and London: The John Hopkins University Press, 1-23.
- Lucy, John. 1992a. *Language Diversity and Thought: A Reformulation of the Linguistic Relativity Hypothesis*. Cambridge: Cambridge University Press.
- 1992b. *Grammatical Categories and Cognition: A Case Study of the Linguistic Relativity Hypothesis*. Cambridge: Cambridge University Press.
- 1996. "The scope of linguistic relativity: An analysis and review of empirical research". In J. J. Gumperz and S. C. Levinson (eds), *Rethinking Linguistic Relativity*. Cambridge: Cambridge University Press, 37-69.
- Malinowski, Bronislaw. 1920. "Classificatory Particles in the language of Kiriwina". *Bulletin of the School of Oriental Studies* 1(4): 33-78.
- Maturana, H. and Varela, F. 1987. *The Tree of Knowledge: The Biological Roots of Human Understanding*. Boston: New Science Library.
- Mellars, P. 1989. "Major issues in the emergence of modern humans". *Current Anthropology* 30: 349-85.
- Murdock, George P. 1945. The common denominator in cultures. In R. Linton (ed.), *The Science of Man in the World Crisis*. New York: Columbia University Press, 123-42.
- Murray, Stephen O. 1994. *Theory Groups and the Study of Language in North America: A Social History*. Amsterdam and Philadelphia: John Benjamins.
- Nida, Eugene A., and Taber, C. R. 1969. *The Theory and Practice of Translation*. Leiden: E.J. Brill.
- Noble, William and Davidson, Iain. 1996. *Human Evolution, Language, and Mind: A Psychological and Archeological Inquiry*. Cambridge: Cambridge University Press.
- Pawley, Andrew. 1994. "On the antiquity of human language". *Australian Language Matters*, 12-14.
- Quinn, Naomi. 1985. "'Commitment' in American marriage: A cultural analysis". In J. W. D. Dougherty (ed.), *Directions in Cognitive Anthropology*. Urbana-Champaign: University of Illinois Press, 291-320.
- Reynolds, P. C. 1993. "The complementation theory of language and tool use". In K. R. Gibson and T. Ingold (eds), *Tools, Language and Cognition in Human Evolution*. Cambridge: Cambridge University Press, 407-428.
- Salzmann, Zdenek. 1993. *Language, Culture, and Society: An Introduction to Linguistic Anthropology*. Colorado: Westview Press.
- Sapir, Edward. 1921. *Language*. Harcourt Brace & World.
- Schelling, T. 1960. *The Strategy of Conflict*. Cambridge, Mass.
- Sebeok, Thomas A. 1972. *Perspectives in Zoosemiotics*. The Hague: Mouton.

- 1975. "Zoosemiotics: at the intersection of nature and culture". In T. A. Sebeok (ed.), *The Tell-tale Sign: A Survey of Semiotics*. Lisse: Peter de Ridder, 85-95.
- 1994. *An Introduction to Semiotics*. London: Pinter.
- Strauss, Claudia and Quinn, Naomi. 1997. *A Cognitive Theory of Cultural Meaning*. Cambridge: Cambridge University Press.
- Taylor, Charles. 1993. "To follow a rule..." In C. Calhoun, E. LiPuma and M. Postone (eds), *Bourdieu: Critical perspectives*. Chicago: University of Chicago Press, 45-60.
- Tobias, P. 1987. "The brain of *Homo habilis*: a new level of organization in cerebral evolution". *Journal of Human Evolution*. 16: 741-61.
- Toth, N. 1985. "Archaeological evidence for preferential right-handedness in the lower and middle Pleistocene, and its possible implications". *Journal of Human Evolution*. 14: 607-614.
- Vygotsky, Lev S. 1934. *Thought and Language*. (Edited by Alex Kozulin, 1986.) Cambridge, MA: MIT Press.
- Whorf, Benjamin Lee. 1956. *Language, Thought, and Reality: Selected Writings of Benjamin Lee Whorf*. Cambridge, Mass.: The MIT Press.
- Whorf, Benjamin Lee, and Trager, G. L. 1996 [1938]. "The 'Yale Report'". Appendix to Lee 1996, 251-280.
- Wierzbicka, Anna. 1988. *The Semantics of Grammar*. Amsterdam: John Benjamins.
- 1992. *Semantics, Culture, and Cognition*. New York: Oxford University Press.
- 1994a. "'Cultural scripts': A semantic approach to cultural analysis and cross-cultural communication". In L. Bouton and Y. Kachru (eds), *Pragmatics and Language Learning* (Monograph series, Vol. 5). Urbana-Champaign, Ill.: University of Illinois, 1-24.
- 1994b. "'Cultural scripts': A new approach to the study of cross-cultural communication." In M. Pütz (ed.), *Language Contact and Language Conflict*. Amsterdam and Philadelphia: John Benjamins, 67-87.
- 1996. *Semantics: Primes and Universals*. New York: Oxford University Press.
- 1997. *Understanding Cultures Through their Keywords: English, Russian, Polish, German, and Japanese*. New York/Oxford: Oxford University Press.