

## LEXICAL AND GRAMMATICAL UNIVERSALS AS A KEY TO CONCEPTUAL STRUCTURES

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**Abstract:** This paper reports on the latest empirical findings in lexico-grammatical universals, providing a full list of (linguistically encoded) universal human concepts, which can be used as a "common measure" in conceptual analysis and in language description and comparison. The metalanguage proposed here is based on a highly reduced and standardized natural language trimmed to the bare essentials: a few dozen basic words, and a limited number of fairly simple grammatical structures.

**Keywords:** language, cognition, metalanguage, semantics, syntax.

### 1. INTRODUCTION

According to Leibniz (1981[1703]:333), "languages are the best mirror of the human mind. and (...) a precise analysis of the significations of words would tell us more than anything else, about the operations of the understanding". Over the centuries, and especially in this century, many students of mind have repeated Leibniz's observation, often, however, changing his plural form ("languages") to the singular ("language"). But in fact the profundity of Leibniz's insight lay precisely in that plural.

"Language" in the singular (a particular language) is not a good mirror of "the human mind" in general: for languages are diverse and each language reflects the features of the culture associated with it. This is why attention to "language" (in the singular) as a guide to "human cognition" has often led various scholars astray, resulting in the absolutization of the conceptual distinctions and patterns suggested to them by their native language.

Language in the singular — English, French or Japanese — is, as Sapir (1949) said, a guide to social reality, a guide to culture. (Like many others, I have tried to show this myself in my recent book "Understanding Cultures through their Key Words" Oxford University Press, 1997.) It is also a guide to the human psyche as culturally constituted, that is, as shaped not only by innate and universal features of "human nature" but also by the particular features of historically transmitted "local" cultures (Cf. Shweder 1990). It is only "languages" in the plural which allow us to see and appreciate both the diversity of cultures and what Franz Boas and others have called "the psychic unity of mankind".

To study the universal aspects of human cognition we need to pay attention to linguistic universals: it is the shared rather than idiosyncratic features of languages which provide a guide to the workings of the generic human mind.

## 2. THE NEED FOR A METALANGUAGE

We cannot adequately study and describe human cognition without an appropriate metalanguage. All attempts to describe aspects of human cognition in ordinary language — for example, in ordinary English — lead inevitably to ethnocentric distortions. For every natural language embodies its own "naive picture of the world" (Apresjan 1974/1992), or its own "Weltanschauung" (Weisgerber, 1939), and this includes its own ethnopsychology. If we do not, at the outset, give serious consideration to the question of an appropriate metalanguage, we get trapped in words such as, for example, *mind*, *emotion*, *self*, and so on — words which are continuously used in the literature as if they were culture-free analytical tools, whereas in fact they are cultural artefacts of one particular language and the intellectual tradition associated with it. It hardly needs to be explained to this audience that, for example, the English *mind* does not mean the same as the French *esprit* or the German *Geist*, or that the English *emotion* does not mean the same as the French *sentiment* or the German *Gefühl* (not to mention, for example, Descartes' *les passions de l'âme* or Wilhelm Wundt's *Gemütsbewegungen*). To recall one striking example, pointed out by the psychiatrist Bruno Bettelheim (1983), important aspects of Freud's doctrine were misunderstood in America, despite his tremendous success and popularity there, simply because his key word *Seele* was rendered in the English translations of his writings as *mind*.

(Not that there was a better word to translate *Seele*; but this does not change the fact that the substitution of the English word *mind* for the German word *Seele* in the English version of Freud's writings led to distortion of his ideas).

As a second example of this kind of distortion I would like to quote from a book by the distinguished American psychologist Ernest Becker (1962: 39), entitled "The birth and death of meaning":

The question "What fact is the most basic to an understanding of human motivation?" can be answered with just one word: anxiety. Anxiety is a prime mover of human behaviour, and man will do anything to avoid it. (...) In fact, one is tempted to coin still another definition, and call man "the anxiety-avoiding animal. (...) Freud, who spent a lifetime trying to uncover the mainsprings of motivation, devoted an entire work to the problem of anxiety. But they are. Freud, who spent a lifetime trying to uncover the mainsprings of motivation, devoted an entire work to the problem of anxiety."

What is most striking about this passage is Becker's substitution of the English word anxiety for the German word *Angst* employed by Freud. Clearly, Becker believed that he was in full agreement with Freud, and indeed that he was only developing Freud's ideas. But in fact, he was talking about something else: anxiety, not *Angst* (and the two don't mean the same, as I have tried to show in a recent paper entitled *Angst* in 'Cultural Psychology'). As a result, Becker's theory of human motivation and human nature misrepresented Freud.

There are few things quite so misleading as to talk about "human nature" or "human cognition" (or "human emotion") simply in English (or in French or in German), without addressing the central issue of a suitable — non-ethnocentric — metalanguage. To quote a comment made recently by Harré and Gillett (1994: 6) concerning what they see as mainstream psychology: "Mainstream psychologists, with their narrow training and cultural isolation, have not generally been aware of how local their common sense systems are". Since

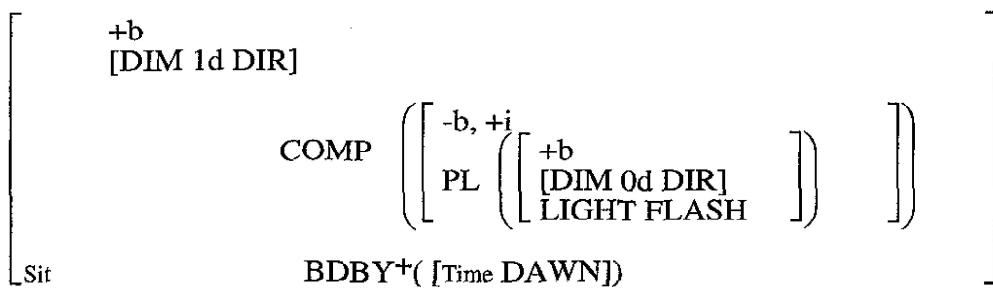
"common sense" interpretive systems are linked with "local languages", the use of any "local" language as an informal metalanguage is bound to lead to ethnocentric bias.

### 3. WHY ARTIFICIAL FORMALISMS CANNOT ELUCIDATE MEANING

But if an ordinary language such as English, in all its culture-specific richness, is not suitable as a metalanguage for studying conceptual structures, neither are artificial languages, which are necessarily incomprehensible until they are translated into some natural language. The only satisfactory solution that I see is the use of a metalanguage based on a highly reduced and standardized natural language — not a full-blown natural language such as ordinary English, or French, which is necessarily culture-specific, and not some artificial technical language, which is necessarily incomprehensible (until translated into some natural language), but a natural language trimmed down to its bare essentials: to a few dozen basic words, and a limited number of fairly simple grammatical constructions.

As I will discuss shortly, Ray Jackendoff's theoretical position is closer to mine than that of many other well-known theoreticians, for he, too, believes in universal conceptual primitives and conceptual grammar. Since, nonetheless, Jackendoff's position differs from mine in some important aspects, I will use some examples from his writings to explain what is specific about my own creed. Consider, for example, Jackendoff's (1991:41) semantic representation of the sentence "The light flashed until dawn", which uses symbols like -b, +i, 1d, DIM or BDBY+.

The light flashed until dawn =



In my view, a semantic representation of this kind -which relies on artificial symbols- is not very illuminating; and explanations which tell us that "b" stands for "bounded", "i", for "individual", "DIR" for "direction" and "DIM" for "dimensionality", does not make it much clearer. In earlier work, for example in his 1990 book "Semantic Structures", Jackendoff employed a semantic representation closer to natural language; in effect something half-way between artificial notation and "quasi-English". Unfortunately, in his more recent work he has shifted to a more abstract feature-based system (as illustrated above), weakening in the process the comprehensibility and verifiability of his analyses. Only by translating formulae of this kind into natural language can one make them comprehensible, to any extent; and until they are comprehensible they are also unverifiable. Commenting recently on the link between the incomprehensibility of artificial semantic formulae and their unverifiability, my colleague Cliff Goddard (In press) recalled for this purpose the famous analysis of kill "as "cause to die", proposed in the 1970s by James McCawley and George Lakoff (kill = X CAUSE [Y die]). When many linguists and philosophers objected to this analysis, pointing out that one can cause someone's death without actually killing them, McCawley (1973) proposed that there were two "abstract" semantic components CAUSE<sub>1</sub> and CAUSE<sub>2</sub>, neither of which could be identified with the English word cause. Goddard (In press, 3-13) comments, as follows:

... this manoeuvre makes the analysis completely unverifiable. Whenever a counter-example is pointed out, the analyst can just say 'Oh, I didn't mean that. That component is abstract, you see. It doesn't mean the same as any English word'.

On this point, too, I find myself in full agreement with Rom Harré and Grant Gillett (1994: 77-78), who in their recent book *The Discursive Mind* insist that in the study of human thought priority must be given to natural language:

Another important consequence of the second cognitive revolution is the priority that must be given to ordinary languages in defining what are the phenomena for a scientific psychology. We will endeavor as far as possible to present and understand cognition in terms of the ordinary languages through which we think, rather than looking for abstract representations of them. That is radical because it resists the idea that a new, formal calculus must be devised to represent thought. Such calculi lie at the heart of the artificial intelligence project, the methodological principles of Chomsky and the transformational grammarians, and the assumption of formalists of all kinds.

I have been arguing for the priority of natural languages for three decades, in direct opposition to transformational grammarians and their descendants, and the whole "NSM" approach to the study of language and thought is based on it: "NSM" stands for a "Natural Semantic Metalanguage", that is to say a metalanguage based directly on natural language.

#### 4. CONCEPTUAL PRIMITIVES

As Leibniz said in the passage quoted at the outset, the operations of the human mind are reflected particularly clearly in the meaning of words. But to be able to understand the meaning of words — and the workings of the human mind reflected in them — we must also take note of Leibniz's observation that not everything can be explained, and that the value of our explanations depends crucially on how self-explanatory our basic concepts are — our primitives, that is to say, those concepts that we are not going to try to explain.

If nothing could be comprehended in itself nothing at all could ever be comprehended. Because what can only be comprehended via something else can be comprehended only to the extent to which that other thing can be comprehended, and so on; accordingly, we can say that we have understood something only when we have broken it down into parts which can be understood in themselves. (Leibniz, 1903/1961:430; my translation)

Semantics can have an explanatory value only if it manages to "define" (or explicate) complex and obscure meanings in terms of simple and self-explanatory ones. If we can understand any utterances at all it is only because these utterances are built, so to speak, out of simple elements which can be understood by themselves.

This basic point, which modern linguistics has largely lost sight of, was made repeatedly in the writings on language by the great French thinkers of the seventeenth century such as Descartes, Pascal, and Arnauld. For example, Descartes wrote:

... I declare that there are certain things which we render more obscure by trying to define them, because, since they are very simple and clear, we cannot know and perceive them better than by themselves. Nay, we must place in the number of those chief errors that can be committed in the sciences, the mistakes committed by those who would try to define what ought only to be conceived, and who cannot distinguish the clear from the obscure, nor discriminate between what, in order to be known, requires and deserves to be defined, from what can be best known by itself. (1931[1701]:324)

In my 1996 book "Semantics: Primes and Universals" I illustrated this point with a recent discussion of the acquisition by children of the concept IF:

Two prominent researchers into child language and the authors of a study on the acquisition of meaning, (...) start their discussion of the concept if by saying: "it is difficult to provide a precise definition of the word if". Then, after some discussion, they conclude: "The fundamental meaning of if, in both logic and ordinary language, is one of implication".

As I pointed out commenting on this statement, it reflects two common assumptions: first, that it is possible to define all words — including if — and second, that if a word seems difficult to define, one had better reach for a scientific-sounding word of Latin origin (such as implication). In my view, these assumptions are not only false, but jointly constitute a stumbling block for semantic analysis. One cannot define all words, because the very idea of 'defining' implies that there is not only something to be defined (a *definiendum*) but also something to define it with (a *definiens*, or rather, a set of "definienses").

As I have argued for three decades (following Leibniz, Descartes, and others), the elements which can be used to define the meaning of words (or any other meanings) cannot be defined themselves; rather, they must be accepted as "indefinibilia", that is, as semantic primes, in terms of which all complex meanings can be coherently represented. A definition which attempts to explain the simple word if via the complex word implication flies in the face of the basic principle of sound semantic analysis put forward more than two millennia ago by Aristotle (1937:141<sup>a</sup>):

First of all, see if he [the analyst] has failed to make the definition through terms that are prior and more intelligible. For the reason why the definition is rendered is to make known the term stated, and we make things known by taking not any random terms, but such as are prior and more intelligible... accordingly, it is clear that a man who does not define through terms of this kind has not defined at all.

The same applies, in my view, to concepts such as "+Bounded", "+Individual", or "+Dimensionality". It is not clear how the use of such "abstract primitives" of this kind can advance our understanding of the meaning of words or of the operations of the human mind. On the other hand, if we assume that concepts such as IF and BECAUSE, or SOMEONE and SOMETHING, are indeed basic and indefinable, we can build our understanding of other, more complex ideas on this basis. And if someone does not want to accept that notions like IF or SOMETHING are indeed self-explanatory, I hope it will be agreed, at least, that they are more self-explanatory than, for example, "implication" or "boundedness".

I am not saying this in order to criticize Ray Jackendoff, because, as mentioned earlier, in many ways his vision of language and its relation to thought is similar to my own. For

Jackendoff, too, argues that there must be stored "in our heads a finite number of 'pieces of thought or simple concepts' plus a set of patterns for putting them together into more and more complex thoughts"; and he, too, calls these simple concepts "conceptual primitives" and the patterns that combine them "conceptual grammar" (Jackendoff 1993:188). Rather, I am seeking to highlight a specific feature of the program pursued by myself and my colleagues (see in particular Goddard, 1989; 1994; and In press), a feature which to us is quite crucial: for us, "conceptual primitives" have to be "hooked on" to intuitively comprehensible words in natural languages; and postulated "conceptual structures" have to be "hooked on" to intuitively comprehensible sentences in ordinary language.

## 5. THE SHARED CORE OF ALL LANGUAGES AS A BASIS FOR A SEMANTIC METALANGUAGE

Conceptual analysis needs a semantic metalanguage which can be understood directly via natural language, because only formulae written in some version of natural language can be intuitively comprehensible and therefore testable. As Keith Allan (1986: 268) put it, any abstract metalanguage is just "a degenerate form of a natural language". To understand the formula we have to mentally undo the "deformation" and go back to ordinary language. At the same time, it has to be a carefully chosen version of natural language — one stripped of all its culture-specific richness and reduced to those essentials which make it isomorphic to all other natural languages.

The point is essential to my argument and so it needs to be explained in some detail. To start with the vocabulary, most words in any given language are specific to this particular language or to a group of languages, and are not universal. For example, neither English nor French has a word with a meaning corresponding exactly to the meaning of the German word *Angst*. At the same time, evidence suggests that all languages have words with meanings corresponding exactly to the meanings of the English words *good* and *bad*, or *big* and *small*. This suggests that the concepts of '*good*' and '*bad*' (or '*big*' and '*small*') can be regarded as universal, and can, therefore, be used as elements of a culture-independent semantic metalanguage.

Proceeding on this assumption, we can still write such words in capital letters, (à la McCawley), as **GOOD** and **BAD** or **BON** and **MAUVAIS**, to indicate that we are using them as elements of a special semantic metalanguage. At the same time (unlike McCawley) we can identify them with the meanings of ordinary English and French words (good and bad, bon and mauvais), and require that semantic formulae including these words be testable via natural language.

Since the words of ordinary language are often polysemous, we will identify the meanings in question by means of certain "canonical" sentences such as, for example, "I did something bad" (*j'ai fait quelque chose de mauvais*) or "something good happened to me" (*quelque chose de bon m'est arrivé*). Proceeding in this way, we can overcome both the incomprehensibility and unverifiability of technical semantic formulae of the kind used, for example, by both McCawley and Jackendoff, and the ethnocentrism of semantic descriptions using a full-blown natural language such as ordinary English or French.

Whether or not all languages do share a minimum of basic concepts and basic syntactic patterns, is an empirical question, and one which my colleagues and I have been pursuing on an empirical basis for many years. The results of these investigations have been reported in our two collective volumes "Semantic and lexical universals — theory and empirical findings" (Goddard and Wierzbicka, eds. 1994) and "Meaning and universal grammar: theory and empirical findings" (Goddard and Wierzbicka, eds. Forthcoming).

These results tend to confirm the thrust of the centuries of philosophical postulates about "innate ideas" (Descartes), "the alphabet of human thoughts" (Leibniz), the "mid-point around which all languages revolve" (Humboldt 1903-36, v.4:21-23) and the "psychic unity of mankind" (Boas). Our main conclusion is that all languages do indeed appear to share a

common core, both in their lexical repertoire and in their grammar, and that this common core can be used as a basis for a non-arbitrary, and non-ethnocentric metalanguage for the description of languages and for the study of human cognition and emotion.

This shared lexical core of all languages, as it emerges from empirical investigations, can be summarized in the form of the following table:

TABLE OF CONCEPTUAL PRIMITIVES AND LEXICAL UNIVERSALS

Substantives	I, YOU, SOMEONE, SOMETHING(THING), PEOPLE, BODY
Determiners	THIS, THE SAME, OTHER
Quantifiers	ONE, TWO, SOME, MANY/MUCH, ALL
Attributes	GOOD, BAD, BIG, SMALL
Mental predicates	THINK, KNOW, WANT, FEEL, SEE, HEAR
Speech	SAY, WORD, TRUE
Actions, events, movements	DO, HAPPEN, MOVE
Existence and possession	THERE IS, HAVE
Life and death	LIVE, DIE
Logical concepts	NOT, MAYBE, CAN, BECAUSE, IF, IF ... WOULD (counterfactual)
Time	WHEN(TIME), NOW, AFTER, BEFORE, A LONG TIME, A SHORT TIME, FOR SOME TIME
Space	WHERE(PLACE), HERE, ABOVE, BELOW, FAR, NEAR; SIDE, INSIDE
Intensifier, Augmentor	VERY, MORE
Taxonomy, partonomy	KIND OF, PART OF
Similarity	LIKE

FRENCH VERSION (cf. PEETERS 1994):

Substantives	moi, toi, quelqu'un (personne), quelque chose(chose); les gens (les hommes); corps
Determiners	celui, le même, autre
Quantifiers	un, deux, quelque, beaucoup, tous
Attributes	bon, mauvais, grand, petit
Mental predicates	penser, savoir, vouloir, sentir (éprouver), voir, entendre
Speech	dire, mot, vrai
Actions, events, and movements	faire, arriver(se passer), bouger
Existence and possession	il y a, avoir
Life and death	vivre, mourir
Logical concepts	non(ne pas), peut être, pouvoir, à cause de, si, si + plus-que-parfait (counterfactual)
Time	quand(moment), maintenant, après, avant, longtemps, quelque temps, peu de temps
Space	du(endroit), ici, sous, au-dessus; loin, près, à coté, dedans (dans)
Intensifier, augmentor	très(beaucoup), plus(davantage)
Taxonomy, partonomy	espèce, partie
Similarity	comme

This is, then, — I would argue — what the "alphabet of human thoughts" looks like. All complex meanings, in all conceptual domains, can be represented and explained as

configurations of these sixty or so fundamental conceptual building blocks. A fuller discussion and justification of this set is given in my 1996 book "Semantics: Primes and Universals", and in the 1994 collective volume edited by Goddard and myself.

The importance of empirical cross-linguistic investigations for establishing the "true" (non-arbitrary) conceptual primitives cannot be over-emphasized. Leibniz's theory of an "alphabet of human thoughts" (1903/1961:435) could be dismissed as utopian because he never proposed anything like a complete list of hypothetical primitives. As one modern commentator wrote, having pointed out the difficulties involved in the proposed search:

In these circumstances it is understandable that Leibniz should consistently avoid the obvious question as to the number and type of fundamental concepts. The approach would be more convincing if one could at least gain some clue as to what the table of fundamental concepts might look like. (Martin, 1964:25).

The best clues as to what the table of fundamental concepts might look like come from the study of languages. It is precisely the breadth of empirical cross-linguistic data currently available which makes it possible for contemporary linguistics to succeed where philosophical speculation has failed.

## 6. UNIVERSAL GRAMMAR

What applies to the universal "lexicon ("alphabet") of human thoughts" applies also to the universal "grammar of human thoughts" manifested in universal syntactic patterns. Empirical evidence suggests that despite the colossal variation in language structures, there is also a common core of "human understanding" relying not only on some shared or matching lexical items but also on some shared or matching grammatical patterns in which shared lexical items can be used. Arguably, this common core defines a set of "basic sentences" which can be said in any language, and which can be matched across language boundaries, and the grammar of these basic sentences consists in the possible distribution patterns of the "atomic elements" (that is, the lexical indefinables). To discover those patterns we have to look at the lexical indefinables themselves, to see what their possibilities of co-occurrence are. Therefore, in searching for universal grammatical patterns, we are looking not for universals of form, but rather for universals of combinability.

For example, the indefinable word happen makes sense only if it is put in a certain syntactic frame, such as "something (good/bad) happened", "something (good/bad) happened to me", "something happened in this place" or "What happened here?"; and the indefinable word do makes sense only if it is put in some frame such as "someone did something", or "someone did something to someone else". Frames of this kind constitute universal "valency options" of the primitives in question. In positing the elements HAPPEN and DO as innate and universal conceptual primitives, I am also positing certain innate and universal rules of syntax — not in the sense of some intuitively unverifiable formal syntax à la Chomsky, but in the sense of intuitively verifiable patterns of possible combinations of primitive concepts.

For instance, the meaning of the sentences "I did something" or "something happened to me" is intuitively clear to any native speaker of English, and cannot be made any clearer by explanations, or by abstract elaborations. In particular, no explanations in terms of "agents", "actors", "volition", "action", "deixis", "self-reference", "subjects", "predicates", "objects", "deletions", or any other technical terms and theoretical constructs can bring anyone a millimetre closer to understanding these sentences. On the contrary, it is our understanding of technical terms and theoretical constructs (such as, in particular, "agency") which has to rest, ultimately, on our intuitive understanding of simple sentences such as "I did this". And what applies to English, applies also to any other language.

In his influential recent book "The Rediscovery of the Mind" John Searle (1994:242) challenges the idea of universal grammar, pointing out that: "the alleged rules of universal grammar" (as conceived by Chomsky and his followers) are not accessible to consciousness, and consequently are not verifiable. I agree with Searle on this point; but this is precisely where the NSM approach to universal grammar differs from the Chomskyan approach. Searle notes that when challenged on this point, Chomsky and Chomskyans tend to "invoke that most powerful of philosophical arguments: 'What else could it be?' 'How else could it work?' Deep unconscious rules satisfy our urge for meaning, and besides, what other theory is there? Any theory is better than none at all" (p 246).

I submit that the NSM approach to universal grammar does provide an alternative theory. This theory does not postulate any "deep unconscious rules" governing conceptual structures, for it sees conceptual structures as expressible in natural language (any natural language) and thus accessible to consciousness. For example, the rule of universal grammar which allows the construction of the NSM sentence "something bad happened to me" is in principle accessible to consciousness and intuitively verifiable (for it is no different from the universally attestable pattern itself).

In this context, I would like to quote the following eloquent passage from George Steiner's (1975) famous book "After Babel":

There is room, I submit, for an approach whose bias of interest focuses on languages rather than Language; whose evidence will derive from semantics (with all the implicit stress on meaning) rather than from 'pure syntax'; and which will begin with words, difficult as these are to define, rather than with imaginary strings or 'pro-verbs' of which there can never be any direct presentation. Investigation has shown that even the most formal rules of grammar must take into account these aspects of semantics and performance which Chomsky would exclude.

## 7. IS A NON-ETHNOCENTRIC PERSPECTIVE ON LANGUAGE, CULTURE AND COGNITION POSSIBLE?

In conjuring up an imaginary opponent of linguistic and cultural universals, Jackendoff (1993:207) writes:

Anyway, what gives you the idea that you can study other cultures systematically? Any description of another culture is unavoidably ethnocentric, an imposition of your own cultural and theoretical prejudices.

And he replies:

But what about language? Any description of another language is unavoidably ethnocentric too, an imposition of our own linguistic and theoretical prejudices. So what? Any description of anything is inevitably tainted by the point of view of the describer.

To me, this appears unnecessarily relativist. I agree that any description of anything is inevitably coloured by the point of view of the describer. I do not think, however, that this is a sufficient reason to abandon the attempt at eliminating - or at least reducing - ethnocentrism. We must acknowledge the dangers of ethnocentrism, but in confronting these

dangers we need more than just good will and, as Jackendoff puts it, "sensitivity and an awareness of our own fallibility" (p.208). We need a method. The use of a metalanguage based on empirically attested universals provides such a method.

Jackendoff urges that "in dealing with another language and culture it is important to respect the point of view of those we are observing and analyzing" (p.208), that is, of "native speakers who have been trained as linguists" (p.207). But this admonition lacks conviction, since it is accompanied by an admission that there is no methodology to combat the researcher's inevitable ethnocentric bias. If the alternative to being ethnocentric in a crude and unconscious way is being ethnocentric in a sensitive and aware way, then to my mind this is not much of a choice.

But I believe that we can do better than that: analysts from any cultural background can learn to look at their languages from the point of view of universals, and to discern within the meaning systems of these languages, language-specific configurations of universal human concepts.

Ethnocentrism cannot be overcome without an empirical search for linguistic universals. Franz Boas remarked at the beginning of this century that whatever we postulate as universal may be refuted by the very next language we happen to turn our attention to. And this remark is still valid — not in the sense that there are no true universals but in the sense that true universals can only be found on an empirical basis, not postulated a priori.

On this point I must part company with Harré and Gillett (1994: 159). The authors quote with approval Catherine Lutz's work on emotion concepts in the Ifaluk language of Micronesia (as I did in Wierzbicka 1992a) and agree with her (as I also did) that English emotion terms such as anger, fear, and sadness represent cognitive artefacts of Anglo culture rather than universal human concepts. They note (as I also did) with reference to Lutz's work, that these English words do not correspond in meaning to the Ifaluk words song (roughly, 'reproach/anger'), metagu (roughly, 'fear/shame') or fago (roughly, 'love/sadness'). Nonetheless, they conclude, we can still understand the emotional lives of the Ifaluk people on the basis of common human ideas such as dignity and honour. They write: "The common human themes through which the world of Ifaluk is made intelligible to us are such matters as social differentiation, honour, and dignity."

But the concepts 'dignity' and 'honour' are also highly culture-specific, no less so than 'anger', 'sadness', and 'fear' or the Ifaluk concepts 'song', 'fago', and 'metagu'. In fact, we can no more understand the Ifaluk people via such European concepts as 'dignity' and 'honour' than we can via the unique Japanese concept of 'amae' (or 'sweet dependence', cf. Doi, 1974; 1981; Wierzbicka, 1991; 1992a and 1997) or the Japanese/Chinese concept of 'on' (cf. Lebra, 1976; Wierzbicka, 1991; 1992a and 1997).

On the other hand, we can understand both the Ifaluk and the Japanese via universal human concepts such as 'good' and 'bad', 'do' and 'happen', or 'know' and 'want'. For as I have tried to show in many publications, even the most culture-specific or indeed unique concepts such as 'amae' and 'on', or 'song', 'fago' and 'metagu', can be portrayed and explained as culture-specific configurations of the same universal human concepts. These universal human concepts, however, must be found, and tested, on an empirical basis, by cross-linguistic semantic investigations.

## 8. SEMANTIC REPRESENTATIONS IN NSM

I will illustrate the NSM mode of semantic representation (and conceptual analysis) with partial analysis of some English emotion terms. In view of the limitations of time, I will not try to state the full meaning of the words in question, but will only extract for each of them one component: the thought with reference to which a feeling is defined. (For fuller discussion, see e.g. Wierzbicka 1992b and c.)

For example, I would say that the English word remorse (as in 'I felt remorse') includes the following semantic component: I thought: 'I did something bad'. Proceeding along similar lines, we can state the cognitive (thought-related) components of several other emotion terms as follows:

I was sad	→	I thought: something bad happened
I was happy	→	I thought: something good happened
I was afraid	→	I thought: something bad can happen to me
I was envious	→	I thought: something good happened to someone else (it didn't happen to me; this is bad)
I felt Schadenfreude	→	I thought: something bad happened to someone else (this is good)

In addition, I would say that each emotion term mentioned above includes the component 'I (this person) felt something because of this', plus one or more further components, which I am not going to discuss here.

What this partial analysis shows is that meaning can be stated in the form of simple and intuitively understandable sentences formulated in natural languages (such as "something bad happened"), without any artificial grammatical machinery and without any technical terms. Furthermore, it shows that meanings can be stated in words apparently available in all languages, such as "good" and "bad", "someone" and "something", or "do" and "happen", and also, that it can be stated in simple sentences which involve only what appear to be universally available combinations of primitives: "something good happened", "I did something bad", "something bad can happen to me", and so on, and which can, therefore, have equivalents in all languages.

To highlight the non-arbitrary and universal aspects of the metalanguage used in this analysis I would like to compare it again with the kind of metalanguage used in some alternative approaches to semantic analysis, such as, for example, Jackendoff's. Thus, in his 1990 book "Semantic structures" (where his analytical metalanguage was in fact closer to natural language than in his more recent work) the meanings of some English emotion terms are represented as follows (p.141):

X pleases Y.	$\left[ \text{state } \text{AFF}^+ ([X], [Y]) \right]$
X displeases Y.	$\left[ \text{state } \text{AFF}^- ([X], [Y]) \right]$
Y likes X.	$\left[ \text{state } \text{REACT}^+ ([Y], [X]) \right]$
Y fears/hates X.	$\left[ \text{state } \text{REACT}^- ([Y], [X]) \right]$

It seems clear that without glosses in natural language, formulae of this kind are incomprehensible and, consequently, unverifiable, and that glosses such as "AFF — affected entity" (p.126) and 'REACT — reaction" (p.132) do not help very much, given that they, too, rely on artificial signs such as pluses and minuses. As an alternative to such artificial and, in my view, unfalsifiable formulae, I would propose semantic explications formulated (approximately) along the following lines:

X is pleased. =  
 person X thinks something like this:  
     something good happened  
     I wanted this  
     because of this, X feels something good  
     like people feel when they think something like this

X is displeased. =  
 person X thinks something like this:  
     something bad happened  
     because someone did something  
     I didn't want this, I wanted something else  
     because of this, X feels something bad  
     like people feel when they think something like this

There is no time here to try to justify these formulae, though I have done this elsewhere (See Wierzbicka 1992b). But the point is that these formulae are intuitively comprehensible and that they are, therefore, testable (and falsifiable). For example, a potential critic could check whether displeased is really less than fully symmetrical with pleased and whether it refers necessarily to somebody's action (e.g., could one say "I was displeased with the weather"?). By contrast, formulae which include artificial symbols such as pluses and minuses or brackets, have no intuitively graspable sense and therefore cannot be similarly tested.

Crucially, as noted earlier, evidence suggests that words such as feel, think, and want (as well as good and bad, someone and something, do and happen, not and because, I and this) are all lexical universals. For example, in French we can match them (in the relevant sense) with the words sentir, penser, vouloir, bon, mauvais, quelqu'un, quelque chose, faire, arriver, non, à cause de, je ceci). By contrast, there are of course countless languages which do not have equivalents of English words such as affected, entity, state or reaction. To treat such English words as "universal conceptual primitives" means to impose on other languages English categories that are alien to them.

Of course it could be claimed that the words affected, entity, state and reaction are used here not as English words but as abstract symbols. But to do this would be to deprive the formulae in question of any link with the empirical reality. Equally well, we could say that pleased means "+X+Y", and displeased means "+X-Y".

## 9. SEMANTIC UNIVERSALS AND CONCEPTUAL STRUCTURES

I would argue, then, that meanings can be described and compared in a semantic metalanguage based on the shared core of all natural languages, a metalanguage with as many possible versions as there are natural languages, and therefore accessible through all natural languages but essentially independent of any of them. For example, as mentioned earlier, a particular meaning can be represented in the English version of the Natural Semantic Metalanguage (NSM) as "something bad happened to me", and in the French version, as "quelque chose de mauvais m'est arrivé", and since the English NSM and the French NSM are mutually isomorphic, nothing hinges on the choice of this or that version: both are intuitively comprehensible and both are free — in their semantics — of culture-specific features.

The question arises: why should all languages, with their tremendous diversity, be reducible to mutually isomorphic mini-languages, with the same mini-lexicon and the same mini-grammar? Why should simple sentences such as "something bad happened to me" be directly translatable, without any addition or subtraction of meaning, into language after language — given that usually more than 99% of sentences in any text that comes up for translation into many other languages do present problems and do require addition or subtraction of meaning?

My hypothesis is that all these mini-languages, which provide lexical and grammatical primitives for semantic analysis of utterances and texts within any language, are isomorphic because they are all language-specific variants of the same innate and universal "lingua mentalis", the language of the human mind. (cf. Wierzbicka 1980). In my view, true insights into the working of the human mind will come neither from pure speculation about language and thought in general nor from the invention of new formalisms, but from the empirical study of languages — languages conceived of not as autonomous formal systems, but *immensely complex, culturally-shaped and constantly changing tools for creating and expressing meaning*.

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