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SEMANTICS

Primes and Universals

ANNA WIERZBICKA

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I General Issues

1 Introduction



1. Language and Meaning

Language is an instrument for conveying meaning. The structure of this instrument reflects its function, and it can only be properly understood in terms of its function. To study language without reference to meaning is like studying road signs from the point of view of their physical properties (how much they weigh, what kind of paint are they painted with, and so on), or like studying the structure of the eye without any reference to seeing.

Curiously, however, this is precisely how many linguists study language. A science of language in which meaning has at best a very marginal place is an anomaly and an aberration (which in itself will present an absorbing topic of study for the future historians of linguistics); and of course not all present-day linguists approach the study of language in that spirit. Yet in university curricula currently adopted in many linguistics departments throughout the world, "formal syntax" still occupies a far more central place than semantics (the study of meaning), and semantics is still often treated as marginal.

Two twentieth-century American linguists have been particularly influential in shaping a "linguistics without meaning": Leonard Bloomfield and Noam Chomsky.

Bloomfield (unlike his great contemporary and co-founder of American linguistics, Edward Sapir) was afraid of meaning, and was eager to relegate the study of meaning to other disciplines such as sociology or psychology. The reason he was afraid of it was that he wanted to establish linguistics as a science and that he thought that meaning couldn't be studied with the same rigour as linguistic sounds and forms. Bloomfield's behaviourism made him find all references to ideas, concepts, thoughts, or mind unscientific; "mentalism" was used by him, and by many other influential linguists of his generation, as a dirty word.¹ As Randy Allen Harris, the author of *The Linguistics Wars* (1993: 27-8), put it: "Bloomfield's ideas defined the temper of the linguistic times: that it [linguistics] was a descriptive and

¹ As a close collaborator of Sapir, Morris Swadesh (1941: 59), pointed out, another confirmed behaviourist, Twaddell, "criticized Sapir as a mentalist dealing with an 'unknown and unknowable mind'".

Bloomfield &
Chomsky
Edward Sapir
Randy Allen Harris

taxonomic science, like zoology, geology, and astronomy; that mental speculations were tantamount to mysticism, an abandonment of science; that all the relevant psychological questions (learning, knowing, and using a language) would be answered by behaviorism; that meaning was outside the scope of scientific inquiry."

It has often been said, in Bloomfield's defence, that it wasn't Bloomfield himself but the "Bloomfieldians" or "post-Bloomfieldians" (and especially Chomsky's mentor Zeilig Harris) who sought to banish meaning from linguistics. For example, Matthews (1943: 114) points out that even "in one of his last general papers he [Bloomfield] continued to make clear that 'in language, forms cannot be separated from meanings'" (1943; in Hockett 1970: 401). But it is not unreasonable to say that what the Post-Bloomfieldians did was to take Bloomfield's largely (though not consistently) anti-semantic stand to its logical conclusion.

Matthews tries to explain why Bloomfield's successors "came to believe that forms could and should be described without reference to meaning" and "why, in adopting a theory in which the separation of form and meaning was axiomatic, they were so sure they were continuing his work". He notes that the usual explanation given is "that however central meaning may have been and however important its investigation, Bloomfield's account of how it should be described effectively closed the door to scientific study" (1993: 115). Matthews seeks to distance himself from this conclusion but in my view it is inescapable.

Bloomfield didn't "reject" meaning in the sense of avoiding any mention of it in linguistic description but he did want to exclude semantic considerations from linguistic analysis. For example, he ridiculed the idea that the grammatical category of number (singular versus plural) has a semantic basis and could be defined with reference to meaning: "school grammar defines the class of plural nouns by its meaning 'more than one' (person, place, or thing), but who could gather from this that *oats* is a plural while *wheat* is a singular? Class-meanings, like all other meanings, elude the linguist's power of definition." (1933/1935: 266)²

Bloomfield himself denied that he had ever wanted to "undertake to study language without meaning, simply as meaningless sound" (letter to Fries; quoted in Hymes and Fought 1975: 1009); but the message of *Language* was none the less loud and clear: there was no room for semantics within the "linguistic science", at least not for the foreseeable future.

We have defined the *meaning* of a linguistic form as the situation in which the speaker utters it and the response which it calls forth from the hearer. ... The sit-

² Curiously, Bloomfield didn't pay any attention to the fact that *oats* is not a "plural" contrasting with a singular (like, for example, *dogs* contrasts with *dog*) and that it doesn't really belong to the same "form class" as *dogs* does. The "form class" to which *oats* belongs, and its invariant meaning, is discussed in Chapter 13. (See also Wierzbicka 1988.)

uations which prompt people to utter speech include every object and happening in their universe. In order to give a scientifically accurate definition of meaning for every form of a language, we should have to have a scientifically accurate knowledge of everything in the speakers' world. The actual extent of human knowledge is very small, compared to this. We can define the meaning of a speech-form accurately when this meaning has to do with some matter of which we possess scientific knowledge. We can define the names of minerals, for example, in terms of chemistry and mineralogy, as when we say that the ordinary meaning of the English word *salt* is 'sodium chloride (NaCl)', and we can define the names of plants or animals by means of the technical terms of botany or zoology, but we have no precise way of defining words like *love* or *hate*, which concern situations that have not been accurately classified—and these latter are in the great majority. ...

The statement of meaning is therefore the weak point in language study, and will remain so until human knowledge advances very far beyond its present state. In practice, we define the meaning of a linguistic form, wherever we can, in terms of some other science. Where this is impossible, we resort to makeshift devices.³ (Bloomfield 1933/1935: 139–40)

Thus, for Bloomfield meaning could be referred to, but not studied, and given his "anti-mentalistic", behaviouristic conception of meaning, it could scarcely have been otherwise.

As Hymes and Fought (1975: 1010) put it, "Bloomfield included meaning in his conception of language structure but not in his short-term linguistic theory. ... scepticism as to the practical possibility of incorporating meaning explicitly in linguistic analysis led to shifts ... to reliance on distributional patterning ... among the Bloomfieldians."

The "cognitive revolution" of the late fifties and the sixties banished (or so it seemed) the ghost of behaviourism, and made mind, and meaning, a central concern of human sciences in general, and of linguistics in particular. To quote one of the main actors of the "cognitive revolution", Jerome Bruner (1990: 1): "That revolution was intended to bring 'mind' back into the human sciences after a long cold winter of objectivism." For Bruner, "mind" is closely related to "meaning": "Now let me tell you first what I and my friends thought the revolution was about back there in the late 1950s. It was, we thought, an all-out effort to establish meaning as the central concept of psychology—not stimuli and responses, not overtly observable behavior, not biological drives and their transformation, but meaning" (p. 2). But, in his own words, Bruner's is not "the usual account of progress marching ever forward" (p. 1); for in his view, "that revolution has now been diverted into issues that are marginal to the impulse that brought it

³ Bloomfield's reference to "NaCl" as "the ordinary meaning of the English word *salt*" highlights his failure to distinguish scientific knowledge from "ordinary meaning", as do also his remarks on the names of plants and animals. For detailed discussion of these matters see Chapters 11 and 12. As for the meaning of emotion terms (such as *love* and *hate*), see Chapter 5.

into being. Indeed, it has been technicalized in a manner that even undermines the original impulse" (p. 1). What has been lost sight of is meaning.

Very early on, for example, emphasis began shifting from "meaning" to "information," from the *construction* of meaning to the *processing* of information. These are profoundly different matters. The key factor in the shift was the introduction of computation as the ruling metaphor and of computability as a necessary criterion of a good theoretical model. Information is indifferent with respect to meaning. (p. 4)

Very soon, computing became the model of the mind, and in place of the concept of meaning there emerged the concept of computability. (p. 6)

It was inevitable that with computation as the metaphor of the new cognitive science and with computability as the necessary if not sufficient criterion of a workable theory within the new science, the old malaise about mentalism would re-emerge. (p. 8)

Bruner decries the "cognitive revolution" for abandoning meaning as its central concern and for "opting for 'information processing' and computation instead" (137); and he urges "that psychology stop trying to be 'meaning-free' in its system of explanation" (20).

But if psychology has been betrayed by the "cognitive revolution", with its escape from meaning, what is one to say of linguistics, in which the promising early references to "mind" (as in Chomsky's *Language and Mind*), have led to a preoccupation with formalisms, and in which "meaning-free" syntax has for decades usurped the place rightfully belonging to the study of meaning? Oliver Sacks (1993: 48) summarizes the "hijacking" of the "cognitive revolution" as follows: "Bruner describes how this original impetus was subverted, and replaced by notions of computation, information processing, etc., and by the computational (and Chomskyan) notion that the syntax of a language could be separated from its semantics." Sacks strongly endorses Bruner's position, and comments: "From Boole, with his 'Laws of Thought' in the 1850s, to the pioneers of Artificial Intelligence at the present day, there has been a persistent notion that one may have an intelligence or a language based on pure logic, without anything so messy as 'meaning' being involved."

Unfortunately, as noted by Sacks, this persistent notion was shared by the main *spiritus movens* of the "cognitive revolution" in linguistics, Noam Chomsky, whose influence on the field can hardly be overestimated.

Despite his mentalist, anti-Bloomfieldian stand, in his attitude to meaning Chomsky remained (and still remains) a Bloomfieldian. Like Bloomfield, "he ... had a deep methodological aversion to meaning, and his work reinforced one of the key elements of the Bloomfieldian policy toward meaning: it had to be avoided in formal analysis" (R. A. Harris 1993: 99).

I agree with Harris (1993: 252) that while some "prefer to look at Chomsky's impact on linguistics as the last gasp of Bloomfieldianism", such a view is "far too narrow". But one also has to agree with Chomsky's critics that although he broke, in a way, Bloomfield's taboo on mind, Chomsky's professed mentalism proved to be as inimical to the study of meaning as was Bloomfield's behaviourism. To quote one critic (Edelman 1992: 243):

One of the most pervasive and influential approaches to these critical questions [of how language and thought are connected] was pioneered by Chomsky. In his formal systems approach, the principal assumption is that the rules of syntax are independent of semantics. Language, in this view, is independent of the rest of cognition. I must take issue with this notion.

The set of rules formulated under the idea that a grammar is a formal system are essentially algorithmic. In such a system, no use is made of meaning. Chomsky's so-called generative grammar ... assumes that syntax is independent of semantics and that the language faculty is impervious to any attempt to disconfirm it by referring to facts about cognition in general. A language defined as a set of strings of uninterpreted symbols generated by production rules is like a computer language.

This brings us back to Bruner's remarks quoted earlier. As he points out (1990: 1), "the new cognitive science, the child of the [cognitive] revolution, has gained in technical successes at the price of dehumanizing the very concept it had sought to reestablish in psychology, and ... has thereby estranged much of psychology from the other human sciences and the humanities". The same can be said about linguistics.

In talking about a "linguistics without meaning" I do not wish to underestimate the work done in linguistic semantics over the last several decades. Nor would I question the significance of the other trends in linguistics that sought to transcend the limitations imposed upon the discipline by generative grammar. Harris (1993) and others are right to rejoice in the "greening of linguistics" of the last decade or two, with the dynamic development of functional linguistics, cognitive linguistics, pragmatics, and so on. At the same time, however, I think that the Bloomfieldian and Chomskyan anti-semantic bias is still hanging over linguistics like a dark shadow. The fact that "formal syntax" still occupies a prominent place in the curricula of many linguistic departments, at the expense of the study of language as an instrument for conveying meaning, gives sufficient substance to this claim.

In the latest version of Chomskyan linguistics references to meaning are apparently no longer disallowed. But this does not change its basically anti-semantic orientation. Chomsky no longer asserts that "if it can be shown that meaning and related notions do play a role in linguistic analysis, then ... a serious blow is struck at the foundations of linguistic theory" (1955:

141). But he none the less remains what he has always been: "a deep and abiding syntactic fundamentalist" (R. A. Harris 1993: 139). Matthews (1993: 245) sums up his comments on the place of meaning in Chomsky's recent work as follows: "Where did that leave an account of meaning? Chomsky, as always, is primarily a student of syntax, or of 'grammar' in a traditional sense. Therefore we can expect, as always, little more than programmatic statements and passing remarks."

Nor has the semantic void created by the "syntactic fundamentalism" of Chomskyan grammar been filled by the so-called "formal semantics", which also features prominently in the teaching programmes of many linguistics departments.

Despite its name, "formal semantics" (or "model-theoretical semantics") doesn't seek to reveal and describe the meanings encoded in natural language, or to compare meanings across languages and cultures. Rather, it sees its goal as that of translating certain carefully selected types of sentences into a logical calculus. It is interested not in meaning (in the sense of conceptual structures encoded in language) but in the logical properties of sentences such as entailment, contradiction, or logical equivalence or, as Chierchia and McConnell-Ginet (1990: 11) put it, in "informational significance", not in "cognitive significance". (Cf. Bruner's (1990: 4) comments on the shift from "meaning" to "information", quoted earlier.)

To quote one noted formal semanticist (of the "Montague grammar" school), "the model theoretic intension of a word has in principle *nothing whatsoever* to do with what goes on in a person's head when he uses that word" (Dowty 1978: 379). Having explained that in model-theoretical semantics the meaning of a sentence is seen as "a set of possible worlds", Dowty acknowledges that "one may reasonably doubt whether sets of possible worlds have anything at all to do with the psychological process of sentence comprehension", and he admits that "there is no sense in which a person mentally has access to 'all the possible worlds that there are'" (376).

Thus, Chomskians like to talk about "mind", but do not wish to study meaning, and "formal semanticists" like to talk about "meaning" but only in the sense of possible worlds or truth conditions, not in the sense of conceptual structures. One thing that both schools share is the great emphasis they place on being formal. This emphasis on formal models, at the expense of a search for meaning and understanding, brings to mind, again, Bruner's (1990: 65) remarks about psychology: "It simply will not do to reject the theoretical centrality of meaning for psychology on the grounds that it is 'vague'. Its vagueness was in the eye of yesterday's formalistic logician. We are beyond that now."

Despite all the promises of the "cognitive revolution" in human sciences in general and of the "Chomskyan revolution" in linguistics, now, at the close of the century, meaning (not the logician's "meaning" but the mean-

ing which underlies human cognition, communication, and culture) is still regarded by many linguists as messy and as "the weak point of language study" (Bloomfield 1933/1935: 140). This book hopes to demonstrate that it doesn't have to be so.

2. Semantic Primitives (or Primes)

To put it briefly, in human speech, different sounds have different meanings. To study this co-ordination of certain sounds with certain meanings, is to study language.

Leonard Bloomfield (1933/1935: 27)

How is it possible to admit that to study language is to study the correlations between sound and meaning and, at the same time, to try to keep linguistics maximally "meaning-free"? Bloomfield's own reason for this contradictory position is quite clear: he wanted linguistics to be a serious and rigorous discipline—"a science"; and it was not clear at the time how, if at all, meaning could be studied in a rigorous and "scientific" manner. In fact, even today, many defenders of the central role of meaning in linguistics don't seem to mind if meaning is spoken of in a loose, vague, *ad hoc* way, without any coherent methodology. On this point, I must say that I agree with Bloomfield: if we really want to study, in a rigorous way, correlations between sounds and meanings (or between forms and meanings), our standards of rigour and coherence in talking about meaning should be just as high and exacting as in talking about sounds and forms.

As I have tried to demonstrate for a quarter of a century, the key to a rigorous and yet insightful talk about meaning lies in the notion of semantic primitives (or semantic primes).

To take an example. Two prominent researchers into child language and the authors of a very valuable study on the acquisition of meaning, Lucia French and Katherine Nelson (1985: 38), 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."

Two common assumptions are reflected in these statements. 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

→ indefinita

definiendum) but also something to define it with (a definiens, or rather, a set of "definienses").

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 "indefinita", 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^a):

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.

It could be argued that what is clear to one person may not be clear to another, and that therefore no absolute order of semantic simplicity can be established. To this, however, Aristotle had an answer: what matters is not what is more intelligible to particular individuals, but what is semantically more basic and thus inherently more intelligible:

For, as it happens, different things are more intelligible to different people, not the same things to all ... Moreover, to the same people different things are more intelligible at different times ... so that those who hold that a definition ought to be rendered through what is more intelligible to particular individuals would not have to render the same definition at all times even to the same person. It is clear, then, that the right way to define is not through terms of that kind, but through what is absolutely more intelligible: for only in this way could the definition come always to be one and the same.

The "absolute order of understanding" depends on semantic complexity. For example, one cannot understand the concepts of 'promise' or 'denounce' without first understanding the concept of 'say', for 'promise' and 'denounce' are built upon 'say'. Similarly, one cannot understand the concepts of 'deixis', 'demonstration', or 'ostension' without first understanding the concept of 'this', on which they are built; and one cannot understand the concept of 'implication' without first understanding the semantically more basic concept of 'if'.

When someone shows me a child who understands and can use the word *implication* but has not yet learned to understand and to use the word *if*, I will admit that everything is relative in semantics. Until such time, however, I will maintain that Aristotle was right, and that, despite all the interpersonal variation in the acquisition of meaning, there is also an "absolute order of understanding", based on inherent semantic relations among words.

This is, then, one of the main assumptions of the semantic theory, and

* arbitrarieta' dei primitivi

semantic practice, presented in this book: meaning cannot be described without a set of semantic primitives; one can purport to describe meaning by translating unknowns into unknowns (as in Pascal's (1667/1954: 580) mock-definition "Light is the luminary movement of luminous bodies"), but nothing is really achieved thereby.

Without a set of primitives all descriptions of meaning are actually or potentially circular (as when, for example, *to demand* is defined as 'to request firmly', and *to request* as 'to demand gently'; see Wierzbicka 1987a: 4). Any set of primitives is better than none, because without some such set semantic description is inherently circular and, ultimately, untenable. This doesn't mean, however, that it is a matter of indifference what set of primitives one is operating with, as long as one has some such set. Far from it: the best semantic descriptions are worth only as much as the set of primitives on which they are based. For this reason, for a semanticist the pursuit of an optimal set of primitives must be a matter of first importance. "Optimal" from what point of view?" the sceptics ask. From the point of view of understanding. Semantics is a search for understanding, and to understand anything we must reduce the unknown to the known, the obscure to the clear, the abstruse to the self-explanatory.

As I pointed out in my *Semantic Primitives* (Wierzbicka 1972: 3), constructors and students of artificial languages often place great emphasis on the arbitrariness of "primitive terms". For example, Nelson Goodman (1951: 57) wrote: "It is not because a term is indefinable that it is chosen as primitive; rather, it is because a term has been chosen as primitive for a system that it is indefinable ... In general, the terms adopted as primitives of a given system are readily definable in some other system. There is no absolute primitive, no one correct selection of primitives."

But the idea that the same applies to the semantics of natural language is a fallacy, and a recipe for stagnation in semantic research. There is of course no reason why linguists shouldn't invent arbitrary sets of primitives and "define" whatever they like in terms of such sets. But it will do little to advance our understanding of human communication and cognition. To quote Leibniz:

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 a human being can understand any utterances at all

(someone else's or their own) 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 lost sight of, was made repeatedly in writings on language by the great thinkers of the seventeenth century such as Descartes, Pascal, Arnauld, and Leibniz. For example, Descartes wrote:

Further 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. (1701/1931: 324)

For Descartes, then, as for Leibniz, there was no question of "choosing" some arbitrary set of primitives. What mattered was to establish which concepts are so clear that they cannot be understood better than by themselves; and to explain everything else in terms of these.

This basic principle was applied first of all to lexical semantics, and was phrased in terms of the definability of words. For example, Pascal wrote:

It is clear that there are words which cannot be defined; and if nature hadn't provided for this by giving all people the same idea all our expressions would be obscure; but in fact we can use those words with the same confidence and certainty as if they had been explained in the clearest possible way; because nature itself has given us, without additional words, an understanding of them better than what our art could give through our explanations. (1667/1954: 580)

Similarly, Arnauld:

Our first observation is that no attempt should be made to define all words; such an attempt would be useless, even impossible, to achieve. To define a word which already expresses a distinct idea unambiguously would be useless; for the goal of definition—to join to a word one clear and distinct idea—has already been attained. Words which express ideas of simple things are understood by all and require no definition . . .

Further, it is impossible to define all words. In defining we employ a definition to express the idea which we want to join to the defined word; and if we then wanted to define "the definition," still other words would be needed—and so on to infinity. Hence, it is necessary to stop at some *primitive words*, which are not defined. To define too much is just as great a failing as to define too little: Either way we would fall into the confusion that we claim to avoid. (1662/1964: 86–7; emphasis added)

Chomsky, despite his claims that generative grammar was a continuation of "Cartesian linguistics" (see Chomsky 1966), has always omitted any mention of this central thread in the Cartesian (as well as the Leibnizian)

Leibniz

theory of language and mind. (See also the references to the "Cartesian conception" of language and cognition in Chomsky's more recent writings, e.g. in Chomsky 1991a).

My own interest in the pursuit of non-arbitrary semantic primitives was triggered by a lecture on this subject given at Warsaw University by the Polish linguist Andrzej Bogusławski in 1965. The "golden dream" of the seventeenth-century thinkers, which couldn't be realized within the framework of philosophy and which was therefore generally abandoned as a utopia, could be realized, Bogusławski maintained, if it was approached from a linguistic rather than from a purely philosophical point of view. The experience and achievements of modern linguistics (both empirical and theoretical) made it possible to approach the problem of conceptual primitives in a novel way; and to put it on the agenda of an empirical science.

Leibniz's theory of an "alphabet of human thoughts" (1903/1961: 435) could be dismissed as a utopia because he never proposed anything like a complete list of hypothetical primitives (although in his unpublished work he left several partial drafts, see Leibniz 1903). 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. In this sense linguistics has a chance of succeeding where philosophical speculation has failed. This book, which is based on linguistic research undertaken (by colleagues and myself) over three decades, does propose a complete (if hypothetical) table of fundamental human concepts capable of generating all other concepts (see Chapter 2). Crucially, this list purports also to be a table of lexical universals—a point which will be discussed in the next section.

3. Lexical Universals

In the theory presented in this book it was hypothesized, from the start, that conceptual primitives can be found through in-depth analysis of any natural language; but also, that the sets of primitives identified in this way would "match", and that in fact each such set is just one language-specific manifestation of a universal set of fundamental human concepts.

For example, it was expected that the concepts 'someone', 'something', and 'want', which are indefinable in English, would also prove to be inde-

finable in other languages; and that other languages, too, will have words (or bound morphemes) to express these concepts.

This expectation was based on the assumption that fundamental human concepts are innate, in other words that they are part of the human genetic endowment; and that if they are innate, then there is no reason to expect that they should differ from one human group to another.

It was also based on the experience of successful communication between native speakers of different languages. Since the indefinable concepts—the primitives—are the fundament on which the semantic system of a language is built, if this fundament were in each case different, speakers of different languages would be imprisoned in different and incommensurable conceptual systems, without any possibility of ever reaching anyone outside one's own prison. This is contrary to human experience, which points, rather, to the existence of both differences and similarities in the human conceptualization of the world; and which tells us that while cross-cultural communication is difficult, and has its limitations, it is not altogether impossible.

The assumption that all languages, however different, are based on isomorphic sets of semantic primitives is consistent with that experience.

Until recently, this assumption was based largely on theoretical considerations rather than on empirical studies of different languages of the world. This situation, however, has changed with the publication of *Semantic and Lexical Universals* (Goddard and Wierzbicka 1994b)—a collection in which conceptual primitives posited initially on the basis of a mere handful of languages were subjected to a systematic study across a wide range of languages from different families and different continents. The languages investigated in this volume included: Ewe (of the Niger-Congo family in West Africa), Mandarin Chinese, Thai, Japanese, the Australian languages Yankunytjatjara, Arrernte (Aranda), and Kayardild, three Misumalpan languages of Nicaragua, the Austronesian languages Acehnese (of Indonesia), Longgu (of the Solomon Islands), Samoan, and Mangap-Mbula (of New Guinea), the Papuan language Kalam, and—the only European language beside English—French.

This first large-scale attempt to test hypothetical conceptual primitives cross-linguistically did not answer all the questions, but except for one or two grey areas requiring further investigation, the studies included in the volume did strongly support the hypothesized set of primitives. In most cases, words (or bound morphemes) for the proposed primitives (e.g. 'I' and 'you', 'someone' and 'something', 'where' and 'when', 'big' and 'small', 'good' and 'bad', or 'do' and 'happen') could be readily identified.

In his discussion of "universalism" in semantics, John Lyons (1977: 331–2) stated that as far as he could see, no one advocates the most extreme form of "semantic universalism", that is, the position that "there is a fixed set of semantic components, which are universal in that they are lexicalized

in all languages". But it is precisely this strongest universalist hypothesis which was tested in *Semantic and Lexical Universals*, and which also underlies the present book.

While the theory presented in this book is radically universalist, two provisions must be entered: first, that I fully accept the Humboldtian view that despite the presence of universals, on the whole the semantic systems embodied in different languages are unique and culture-specific; and second, that the presence of "embodied" (that is, lexicalized) universals does not mean perfect equivalence in language use. Both these points require some elaboration.

As all translators know to their cost, every language has words which have no semantic equivalents in other languages, and every language draws semantic distinctions which other languages do not. For example, translating the classic texts of the Hindu cultural tradition into European languages one must face the fact that these languages do not have words coming even near in meaning to key Sanskrit terms such as *nirvana*, *brahman*, *atman*, or *karma* (see Bolle 1979: 219–58). But even comparing languages which are genetically, geographically, and culturally very close, for example French and English, one constantly encounters examples of profound lexical differences. For example, the French word *malheur* has no counterpart in English, as pointed out by the English translator of Simone Weil's meditations on this concept, who finally in desperation decided to use, throughout his translation, the totally inadequate English word "affliction" (Weil 1972: 63).

In a sense, most words in all languages are like the French *malheur*, that is, unrenderable (without distortion) in some other languages. More than that, every language has words which are intimately bound up with one particular culture and which have no equivalents in any other languages. (See e.g. Wierzbicka 1991b, 1992a). At the same time, all languages also have words which—unlike *malheur*—do appear to have semantic counterparts in all other languages. The hypothesis explored in this book (and in the work which led to it) is that in every language the set of such readily "translatable" words coincides with the set of this language's indefinables.

Within a particular language, every element belongs to a unique network of elements, and occupies a particular place in a unique network of relationships. When we compare two, or more, languages we cannot expect to find identical networks of relationships. We can, none the less, expect to find corresponding sets of indefinables.

It is this (limited) isomorphism in the lexicon (and, as we shall see, also in grammar) that gives substance to the notion of universal semantic primitives.

For example, the English words *big* and *small* correspond in meaning to the Russian words *bol'soj* and *maler'kij*, even though in English, *small* has

* universalismo totalitario
* inahismo
* telahismo

also a special relationship with *little*, and even though in Russian, *malen'kij*—formally a diminutive—has a special relationship with diminutive adjectives such as *beler'kij* ('white' + DIM) or *kruglen'kij* ('round' + DIM). Whatever the differences in "resonance" (see Section 8.7) between *small* and *maler'kij* are, these differences cannot be shown through definitions; and so, from a definitional point of view, they constitute a "perfect" match (in the systems of English and Russian indefinables, they occupy the same slot). Similarly, regardless of any differences in "resonance" (and use), the Japanese words *ookii* and *tiisai* constitute a perfect semantic match for *big* and *small*, and the Japanese words *ii* and *warui*, for *good* and *bad*. (See Onishi 1994.)

Furthermore, it is only the postulated isomorphism of exponents of conceptual primitives which allows us to compare different semantic systems at all. For any comparison requires a *tertium comparationis*, a common measure. The hypothesized set of universal semantic primitives offers us such a common measure and thus makes it possible to study the extent of semantic differences between languages.

So the theory presented here combines, in a sense, radical universalism with thoroughgoing relativism. It accepts the uniqueness of all language-and-culture systems, but posits a set of shared concepts, in terms of which differences between these systems can be assessed and understood; and it allows us to interpret the most idiosyncratic semantic structures as culture-specific configurations of universal semantic primitives—that is, of innate human concepts.

4. Innate Concepts and Language Acquisition

Acquiring language consists in large part of learning how to map or translate from one representational system (the child's prelinguistic conceptual notions) into another (language).

(Bowerman 1976: 101)

As mentioned earlier, the idea that fundamental human concepts (semantic primes) are universal is closely linked with the notion that these concepts are innate. It is heartening to see, therefore, that over the last twenty years, child language acquisition studies have not only increasingly viewed language learning as, above all, a quest for meaning, but have also increasingly assumed that the child embarks on this quest not as a passive *tabula rasa* but as an actor equipped with some innate basic concepts.

To quote Bowerman (1976: 112–13), "the child is now commonly viewed as coming to the language-learning task well equipped with a stock of basic concepts that he has built up through his interactions with the world . . . Some early concepts undoubtedly develop autonomously (i.e. indepen-

Slobin BCG

dently of language), particularly those which are universal (e.g. object permanence)." Bowerman quotes with approval Macnamara's (1972: 5) statement that "it is inconceivable that the hearing of a logical term (by which he means words such as 'and', 'or', 'more', 'all', and 'some') should generate for the first time the appropriate logical operator in a child's mind. Indeed the only possibility of his learning such a word would seem to be if he experienced the need for it in his own thinking and looked for it in the linguistic usage about him."

What is particularly interesting in Bowerman's (1976) discussion of the problem of innateness is her clear perception of the link between a child's first concepts, language universals, and semantic primitives.

The view that a central process in language acquisition is the child's search for links between cognitive and linguistic concepts and linguistic forms and operations has been strengthened and encouraged by recent developments in linguistics. Many linguists now argue, on grounds quite independent of child language, that the most basic elements of language are not abstract syntactic configurations like grammatical relations, but rather a universal set of prime semantic concepts that combine according to general and language-specific constraints to yield both words and sentences. (102)

The linguists to whom Bowerman refers at this point are generative semanticists, that is, representatives of a school which flourished briefly in the late sixties and early seventies but has now long ceased to exist (see e.g. R. A. Harris 1993). But the idea of a universal set of semantic primes was neither due to that school, nor linked in any way with its fate. On the contrary: as I argued at the time (e.g. Wierzbicka 1967a,b, 1972, 1976b), it was a lack of a strong commitment to that idea which made the position of the generative semantics school—suspended in mid-air between Chomskyan "meaning-free" syntax and genuine semantics—untenable.

The notion of innate and universal semantic primitives which underlies this book corresponds, in some ways, to Slobin's (1985) "semantic space" of "prelinguistic meanings", in which "core concepts and clusters of related notions can be identified" (1163). Slobin's central claim is that children construct "similar early grammars from all input languages. The surface forms generated by these grammars will, of course, vary, since the materials provided by the input languages vary. What is constant are the *basic notions* that first receive grammatical expression, along with early constraints on the positioning of grammatical elements and the ways in which they relate to syntactic expression" (emphasis added).

Slobin explicitly relates his innate "basic concepts" to Sapir's "absolutely essential concepts . . . the concepts that must be expressed if language is to be a satisfactory means of communication" (1949: 93).

Supporting, in principle, Slobin's "BCG" (Basic Child Grammar) hypothesis, Bowerman (1985: 1284) writes: I argue that the BCG hypothesis does

contain a fundamental insight into early language development: that children's starting semantic space is not a *tabula rasa*, passively awaiting the imprint of the language being learned before taking on structure. Rather, children are conceptually prepared for language learning." At the same time, Bowerman (1985) argues that "the initial organization of semantic space is not fixed but flexible", that the child's "semantic space" does not "define a single, privileged set of semantic notions that strongly attracts the grammatical forms of the input", and that "one important factor that can influence the meanings children adopt is the *semantic structure of the input language*" (1284).

But there is no reason why the initial organization of the child's "semantic space" should not be flexible in the way Bowerman describes it and yet fixed in its minimum core of "absolutely essential concepts", as stipulated by Sapir. There is also no conflict between the tenet (which I will defend in further chapters of this book) that the universal innate concepts play a particularly important role in grammar and the perfectly plausible idea that from early on children pay a special attention to language-specific semantic distinctions, drawn by, and perhaps grammaticalized in, their native language. But to explore such issues in a meaningful way we need a coherent semantic theory, and a rigorous semantic methodology. (See Chapter 7.)

The converging perspectives of current theoretical reflection on language acquisition and the linguistically based search for innate and universal semantic primitives is perhaps best expressed by Bruner (1990: 72): "the case for how we 'enter language' must rest upon a selective set of prelinguistic 'readiness for meaning'. That is to say, there are certain classes of meaning to which human beings are innately tuned and for which they actively search. Prior to language, these exist in primitive form as protolinguistic representations of the world whose full realization depends upon the cultural tool of language."

Given the attention that Chomsky's writings on language continue to receive in the world market of ideas, it is perhaps worth mentioning here Chomsky's new theory on the acquisition of concepts, according to which most concepts (including, for example, 'chase', 'persuade', 'murder', or 'table', and perhaps even 'bureaucrat' and 'carburettor') are innate. Speaking of the semantic complexity of most concepts, Chomsky (1991b: 29) writes: "Barring miracles, this means that the concepts must be essentially available prior to experience, in something like their full intricacy. Children must be basically acquiring labels for concepts they already have, a view advanced most strongly by Jerry Fodor."

This theory, which Chomsky (1987: 33) himself acknowledges many find absurd, ignores the fact that the meanings of most words differ from language to language, that they are "cultural artefacts", reflecting aspects of the cultures that have created them.

In my view, what can be reasonably expected to be innate is not culture-specific concepts such as 'bureaucrat' or 'apparatchik', 'table' or 'boomerang', 'persuade' or 'kow-tow', but only those which show up in all languages, such as 'person' and 'thing', 'do' and 'happen', 'where' and 'when', or 'good' and 'bad'. All the other concepts must be acquired via "the cultural tool of language".

Incidentally, the idea that the meanings of most words are innate rather than construed within a culture out of innate primitives, is used in Chomsky's writings (as well as in Fodor's; see Chapter 7), as an argument against lexical semantics: words are very difficult to define, but there is no need for linguists to try to define them, because they are simply labels for unanalysable innate concepts. "Ordinary dictionary definitions do not come close to characterizing the meaning of words" (Chomsky 1987: 21); none the less, they "can be sufficient for their purpose because the basic principles of word meaning (whatever they are) are known to the dictionary user, as they are to the language learner, independently of any instruction or experience" (ibid.).

This effectively absolves the linguist from the need to study the meaning of words or to take an interest in lexicography. Even the general principles of word meaning ("whatever they are") are clearly too hard to study. Here again, Chomsky's mentalism is as inimical to the study of meaning as was Bloomfield's behaviourism.

5. The Universal Syntax of Meaning

In what has been said so far, the emphasis was very much on the elements: the primitive concepts, the indefinable words. But to say anything meaningful we need more than words: we need sentences in which words are meaningfully put together. Similarly, to think something we need more than "concepts": we need meaningful combinations of concepts. Despite its obvious limitations, Leibniz's old metaphor of an "alphabet of human thoughts" is still quite useful here: conceptual primitives are components which have to be combined in certain ways to be able to express meaning.

For example, the indefinable word *want* makes sense only if it is put in a certain syntactic frame, such as "I want to do this". In positing the elements I, WANT, DO, and THIS 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 determining possible combinations of primitive concepts.

For example, the meaning of the sentence "I want to do this" 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", "clauses", "deletions", or any other technical terms and theoretical constructs can bring anyone a millimetre closer to understanding this sentence. On the contrary, it is our understanding of technical terms and theoretical constructs which has to rest, ultimately, on our intuitive understanding of simple sentences such as "I want to do this" or "I want you to do this".

If one wants to explain the meaning of a sentence such as "I want to do this" to a non-native speaker, the best one can do is to point to a semantically matching sentence in their own language. For example, to a Russian one could offer the following equation:

I want to do this = ja xoču èto sdelat'

where *ja* matches with *I*, *xoču* (1st Sg) with *want*, *èto* with *this*, and *sdelat'* with *do*, and where the combination *ja xoču* matches *I want*, the combination *èto sdelat'* matches *do this*, and the whole combination *ja xoču èto sdelat'* matches the whole combination *I want to do this*.

This is, then, what the universals of meaning is all about: it consists in universal combinations of universal conceptual primitives (see Chapter 3). From a formal point of view, the grammar of the Russian sentence differs a great deal from that of the English one. For example, the word *xoču* can be analysed into two parts, the verbal stem *xoč-* and the inflexional ending *-u* (first person singular, present tense), whereas the English word *want* (which in combination with "I" conveys the same meaning) is not similarly analysable; and the order of the elements *èto* and *sdelat'* is different from that of *do* and *this*. But formal differences of this kind don't detract in the least from the overall semantic equivalence of the two sentences, which is based on the equivalence of the primitives themselves and of the rules for their combination.

Thus, the theory posits the existence not only of an innate and universal "lexicon of human thoughts", but also of an innate and universal "syntax of human thoughts". Taken together, these two hypotheses amount to positing something that can be called "a language of thought", or *lingua mentalis*, as I called it in the title of my 1980 book.

Researchers into early child utterances have often noted how similar these utterances are, across languages and cultures (see e.g. Slobin 1985: 1189, 1243; Bowerman 1976: 139). The hypothesis of an innate and universal *lingua mentalis* as a basis of all future language development can, I think, go a long way towards explaining this. Of course, it will be said—and justly so—that it is, above all, the social needs of infants which explain the commonalities of infants' early speech and communication (see e.g. Halliday 1975; Donaldson 1978). But the semantic and the social point of

view on language acquisition are fully compatible. What the child needs and wants to convey is messages such as 'I want something', 'I don't want to do this', 'I want more' (e.g. "more juice!"), 'I want you to do something', 'I don't want you to do this', 'there isn't (any)' (e.g. "allgone"), 'I want to know something', 'I see something bad' (e.g. "yukky"), and so on.

Messages of this kind, which rely not only on conceptual primitives such as WANT, DO, or NOT, but also on their "canonical" combinations, can indeed be called "social"; but being "social" doesn't make them any less meaningful. On the contrary, social interaction relies, to a considerable extent, on expressing and interchanging "social meanings" (such as, for example, 'I want you to do something' or 'I don't want you to do this').

Edelman (1992: 239) writes: "The syntax and semantics of natural language are not just special cases of formal syntax and semantics, the models of which have structure but no meaning. . . . symbolic structures are meaningful *to begin with*." Arguing against Chomsky's "language acquisition device", Edelman charges that it "ignores the fact that language serves to convey the thoughts and feelings of individuals who already think independently of language" (243), and he points out (with reference to Margaret Donaldson's (1978) critique of the Chomskyan position) that "a child first makes sense of situations and human intentions and *then* of what is said. This means that language is *not* independent of the rest of cognition" (245).

I, too, believe that language is not independent of the rest of cognition, and that meaning underlies language, not the other way around. Presumably, children "make sense" of what is said in much the same way as they "make sense" of non-verbal behaviours such as crying, smiling, frowning, beckoning, and so on. (See e.g. Wierzbicka 1993a, 1994g, 1995b.) Doesn't beckoning, for example, mean 'I want you to come here now'? And what could "making sense" mean if not interpreting people's observed behaviour in terms of meaningful "mental representations" such as 'I want you to come here' or 'I don't want you to do this'?

As Slobin (1985: 1243) put it, a child appears to be able "not only to scan linguistic input to *discover* meaning, but also to scan linguistic input for the means of expressing highly accessible, prelinguistic meanings". I believe that simple sentences formulated in lexical universals (such as "I want to do this" or "I feel something bad") allow us to give substance to such widely shared intuitions and claims about a child's "pre-linguistic meanings". More generally, my hypothesis is that in a latent state, the innate mini-language of universal semantic primitives constitutes the basis of a child's "readiness for meaning".

But while child language acquisition can undoubtedly be a fertile field of study for anyone interested in pre-linguistic semantic structures, at the moment the best avenue for studying the "universal syntax of meaning" is

clearly cross-linguistic semantic investigation.⁴ Preliminary evidence suggests, for example, that patterns such as "I want to do something", "I know this", "Where are you?", or "I can't move" are universal (that is, attestable in all languages). Facts of this kind are as important for the study of the innate conceptual system (or the "prelinguistic readiness for meaning"; Bruner 1990: 72) as the presence in all languages of words for 'I', 'you', 'where', 'want', 'think', or 'know'.

Just as attempts to separate syntax from meaning, and to absolutize syntax, have failed as a path to understanding how natural language works, how it is used, and how it is acquired, so too any attempts to separate meaning from syntax and to absolutize the lexicon would lead nowhere, for syntax and meaning are inextricably bound. To quote Oliver Sacks (1993: 48): "it is increasingly clear, from studying the natural acquisition of language in the child, and, equally, from the persistent failure of computers to 'understand' language . . . that syntax cannot be separated from semantics. It is precisely through the medium of 'meanings' that natural language and natural intelligence are built up."

6. The Natural Semantic Metalanguage (NSM)

I believe that the strongest support for the hypothesis of a language-like innate conceptual system comes from its proven merits as a working tool in the investigation of languages and cultures.

As pointed out earlier, any meaningful comparison requires a *tertium comparationis*, that is, a common measure. If by investigating as many diverse languages as possible we can establish a hypothetical shared core of all natural languages, we can then treat this shared core as a language-independent metalanguage for the description and comparison of all languages and cultures. Without such a language-independent metalanguage, we would be for ever condemned to ethnocentrism, for we could only describe other languages and cultures through the prism of our own language (whether colloquial or technical) (see e.g. Lutz 1985).

But if we can identify the shared core of all natural languages and build on this basis a "natural semantic metalanguage", we can then describe the meanings conveyed in any language, as if from inside, while at the same time using sentences from our own language, which—if at times unidiomatic—are none the less directly intelligible to us. To put it differently, the shared core of all languages can be seen as a set of isomorphic mini-

⁴ In principle, data from language acquisition studies are very important to semantic theory. The difficulty is that to be directly relevant these studies should be conducted within the framework of a coherent semantic theory, and should be so devised as to test specific semantic hypotheses. In the past, this usually hasn't been the case.

languages, which can be used as language-specific versus Natural Semantic Metalanguage (NSM).

If we try to explain the meaning of Russian or Japanese by providing them with *ad hoc* English glosses (using fi we inevitably distort their meaning and impose on them spectively inherent to the English language. On the other hand, full-blown English glosses we were to provide a gloss in that is, in the English version of the Natural Semantic Metalanguage, no such distortion would be necessary, for the English version of NSM can match exactly the Russian or the Japanese versions. For example, as pointed out earlier, the Russian NSM formula *ja xochu èto sdelat'* matches semantically the English NSM formula *I want to do this*.

The idea that all languages share an identifiable core is by no means new. Wilhelm Humboldt emphasized that in both lexicon and grammar, there is a "midpoint around which all languages revolve" (1903–36, v. 4: 21). Nor is it a novel idea that for semantic descriptions of different languages a special "intermediary language" is needed—and not just an artificial system of abstract features (like the Markese of Katz and Fodor 1963) but a more language-like semantic metalanguage. The notion of "jazzyk posrednik", 'language-intermediary', of the Moscow semantic school (see Žolkovskij 1964), is particularly relevant here.

What is new in the present theory is the assumption that an effective metalanguage for the description and comparison of meanings can be found in the common core of natural languages, and that it can be, so to speak, carved out of them. Incorporating this assumption, the NSM theory combines the philosophical and logical tradition in the study of meaning with a typological approach to the study of language, and with broadly based empirical cross-linguistic investigations.

Unlike various artificial languages used for the representation of meaning, the Natural Semantic Metalanguage, carved out of natural language, can be understood without further explanations (which would necessitate the use of some other metalanguage, and so on, *ad infinitum*), and thus offers a firm basis for a genuine elucidation of meaning.

As Ana Agud (1980: 457) put it in her *Historia y teoría de los casos*, "ninguna lengua formal puede ser, en última instancia, más precisa que el lenguaje natural que es su último metalenguaje", i.e. "no formal language can be, in the last instance, more precise than the natural language which is its ultimate metalanguage".⁵

⁵ See also the following recent statement by Harré and Gillett (1994: 27–8): "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

The need for a universally based metalanguage in human sciences has been well illustrated by the recent interdisciplinary debates on the nature of human emotions. (For detailed discussion, see e.g. Wierzbicka 1992c, 1994h). For example, it has been repeatedly pointed out that if we try to explain key emotion terms of other languages (such as the Ilongot *liget*, or the Ifaluk *fago* and *song*) by using English words and combinations of words such as "anger/passion/energy", "love/sadness/comparison", or "justified anger", we are imposing an Anglo cultural perspective on other cultures. For from an Ifaluk point of view, *fago* is a unified concept, not a mixture of the concepts encoded in the English words *anger*, *love*, *sadness* (for which Ifaluk has no equivalents).

The uncritical use of culturally shaped English words (such as *anger*, *shame*, *depression*, *emotion*, *mind*, or *self*) as "culture-free" analytical tools, and the reification of the concepts encoded in them, has been strongly criticized (in my view, with good reason) in recent anthropological literature (see e.g. Rosaldo 1980; Lutz 1988; Kondo 1990; see also Wierzbicka 1993b). But to move from "deconstruction" to constructive rebuilding of the metalanguage of human sciences, we need to go beyond conceptual relativism and reach for conceptual universals.

7. Semantic Invariants

In recent decades, semantics has suffered at the hands not only of its enemies but also of some of its friends. As I will argue in detail later (see in particular Chapter 4), especially harmful to its progress has been the doctrine of "family resemblances" and the associated attacks on the notion of semantic invariant—a corner-stone of effective semantic analysis.

One of the main tenets of this book is that words do have meanings, and that these meanings can be articulated. If they haven't been successfully articulated in the past, for example, by the proponents of semantic "features" and "markers", it is not because words do not have any constant meanings but because the methodology was inappropriate.

Of course, meanings can change, and they may vary from one dialect, socioclect, or "generatoclect" to another. But semantic change as such is not gradual; only the spread of semantic change is. (One meaning may gradually disappear, another may gradually spread, but both meanings are determinate, and the difference between them is discrete.) In any given speech community, meanings are shared. These shared meanings constitute the

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."

basis of communication, and the mainstay of culture; to a large extent, they are also the vehicles by which culture is transmitted.

It should go without saying that to be able to fully understand cultures different from our own, we must be able to grasp the meaning of words encoding culture—specific concepts. For example, to understand Japanese culture, and to interpret it to cultural outsiders, we need to grasp the meaning of key Japanese words such as *amae*, *on*, or *wa* (see Wierzbicka 1991b; also Chapter 8); and to be able to understand Malay culture, we need to be able to grasp the meaning of key Malay words such as *mahu*, *halus* or *lah* (see Goddard 1994c, forthcoming c). The use of the Natural Semantic Metalanguage allows us to state such meanings in a precise and illuminating way. It allows us to go beyond the vicissitudes of language use and to capture, and reveal, the semantic invariant of a word.

8. Methodological Issues

Summarizing the results of the cross-linguistic investigations reported in *Semantic and Lexical Universals* (Goddard and Wierzbicka 1994b), I wrote (Wierzbicka 1994b: 445): "Hunting for semantic and lexical universals is not like pearl-fishing. Primitives do not present themselves glittering and unmistakable. Identifying them is an empirical endeavour but one that calls for much interpretative effort." In this section, I will briefly survey the main methodological problems arising in the process of identifying universal semantic primitives and building a Natural Semantic Metalanguage. (For more detailed discussion, see Goddard 1994a; Goddard and Wierzbicka 1994a.)

8.1. Polysemy

Polysemy is extremely widespread in natural language, and common everyday words—including indefinables—are particularly likely to be involved in it. A semantic primitive cannot be identified, therefore, simply by pointing to an indefinable word. Rather, it must be identified with reference to some illustrative sentences. For example, the English word *want* has at least two meanings, as illustrated below:

- (A) I want you to do something.
- (B) This house wants painting.

Of these two meanings only A is proposed as a semantic primitive.

The NSM theory does not claim that for every semantic primitive there will be, in every language, a separate word—as long as the absence of a

separate word for a given primitive can be convincingly explained (in a principled and coherent way) in terms of polysemy. The notion of different grammatical frames plays a particularly important role in this regard.

For example, if in the Australian language Yankunytjatjara (see Goddard 1994b) both the concepts THINK and HEAR, posited here as primitives, are expressed by means of the same verb, *kulini*, this is not seen as a counter-example, because (as Goddard shows) these two meanings of *kulini* are associated with different grammatical frames, and so this verb is demonstrably polysemous. Of course polysemy must never be postulated lightly, but neither should its presence be denied on dogmatically a priori grounds: each case has to be examined on its merits, with reference to some general methodological principles. (For detailed discussion, see Chapter 6; also Goddard 1994a, 1991a).

8.2. Allollexy

If one word (or morpheme) can be associated with two different meanings, one meaning can often have two or more different lexical exponents. By analogy with "allomorphs" and "allophones", such different exponents of the same primitive are called in NSM theory "allollexes".

To start with some relatively trivial examples, in English, *I* and *me* are allollexes of the same primitive concept (in Latin, EGO, in Russian, JA). Often, the allollexes of a primitive are in complementary distribution; for example, in Latin the three forms *hic*, *haec*, *hoc* are all exponents of the same primitive THIS, and the choice between them depends on the gender of the head noun.

Often, the combination with another primitive forces the choice of one of a set of allollexes. For example, in English, a combination of the primitives SOMEONE and ALL is realized as *everyone* or *everybody*, and a combination of ALL with SOMETHING is realized as *everything*. In these particular contexts, *-one* and *-body* can be seen as allollexes of SOMEONE, on a par with *someone*; and *-thing* can be seen as an allollex of SOMETHING, on a par with *something*.

The notion of allollexy plays a particularly important role in the NSM approach to inflexional categories (first articulated by Cliff Goddard at the 1992 Semantics Symposium held in Canberra). Consider, for example, the following sentences:

- (A) I am doing it now.
- (B) I did it before now (earlier).
- (C) I will do it after now (later).

By themselves, the forms *am doing*, *did* and *will do* convey different meanings, but when combined with the temporal adjuncts *now*, *before now*, and

after now, they are in complementary distribution and can be seen as allollexes of the same primitive, DO.

This is why NSM sentences can be said to match, semantically, across languages, even though the inflexional categories in these languages differ. For example, the Chinese NSM sentence adapted from Chappell (1994: 138)

Chū-shǐ hòu, wǒ shuō-le xiē shénme
happen after I say-PPV CL something
'After this happened, I said something.'

can be matched with the English NSM sentence:

After this happened, I said something.

even though the English word for HAPPEN, in contrast to the Chinese one, is marked for past tense: when combined with *after*, the form *happened* can be seen as an allollex of HAPPEN, on a par with *happen*.

8.3. Obligatory or Semi-obligatory Portmanteaus

The notion of allollexy is closely linked with that of semantic portmanteaus, which I will illustrate with a simple example from Russian. The expression *like this*, common in both everyday English and in English NSM sentences, is normally rendered in Russian by means of the word *tak*, which expresses a combination of the two primitives LIKE and THIS.

Ja sdelal èto tak
I did this like-this

Since, however, Russian does have separate exponents for both LIKE and THIS (*kak* and *èto*), the use of an obligatory, or semi-obligatory, portmanteau for their combination does not present a problem for the NSM theory. It would present a problem if the postulated primitives did not have their own exponents usable in other contexts.

8.4. Valency Options

The notion of valency options (developed in Chapter 3) refers to different combinability patterns available to the same primitive. For example, the primitive DO can occur in the following combinations:

- (A) X did something.
- (B) X did something to person Y.
- (C) X did something with thing Z.

Obviously, "doing something to someone", or "doing something with something" implies "doing something". None the less, sentences B and C

cannot be analysed in terms of A and something else. It has to be recognized, therefore, that in each case the difference in meaning is due to the sentence as a whole, not to the predicate as such, and that the three sentences share in fact the same predicate (DO), albeit they realize different valency options of this predicate.

8.5. Non-compositional Relationships

Semantic primitives are, by definition, indefinable: they are Leibniz's ultimate "simples", Aristotle's "piora", in terms of which all the complex meanings can be articulated, but which cannot be decomposed themselves. They can, of course, be represented as bundles of some artificial features, such as "+ Speaker, - Hearer" for 'I', but this is not the kind of decomposition which leads from complex to simple and from obscure to clear. As pointed out earlier, the meaning of a sentence like "I know this" cannot be clarified by any further decomposition—not even by decomposition into some other meaningful sentences; and "features", which have no syntax and which are not part of natural language, have no meaning at all: they have to be assigned meaning by sentences in natural languages, rather than the other way around.

This means that, from a compositional point of view, elements such as 'I' and 'you' are semantically simple and have no identifiable part in common. At the same time, intuitively, these two elements are clearly related. Their relationship, however, is non-compositional.

A semantic system is not like a bag full of marbles, each of them perfectly round, self-contained, and independent of the others. Rather, it is a system "où tout se tient", to invoke (in a new context) Saussure's famous phrase. In this system, there are elements which "belong together" and which have the same combinatorial properties, such as 'I' and 'you', or 'good' and 'bad'. Elements of this kind are intuitively related, but this doesn't mean that one of them can be defined in terms of the other.

In the universal semantic system there are many different kinds of non-compositional relationships. For example, the elements I, YOU, THIS, HERE, and NOW, are all mutually related, although they do not all have the same combinatorial properties. We can acknowledge this relationship by putting on them all one label, "deictic", but doing this—while useful—has nothing to do with semantic decomposition.

The primitive THE SAME has a non-compositional relationship with the primitive LIKE, and also with the primitive ONE. The first is highlighted in sentences such as the following one:

This fish is like that other fish, but it is not the same fish.

The second relationship is reflected in the colloquial phrase "one and the same", and in the apparent paraphrase relation between sentences such as A and B below:

- (A) These two shoes belong to one pair. ≈
- (B) These two shoes belong to the same pair.

But close as the elements within each pair may be, neither THE SAME and LIKE nor THE SAME and ONE can be identified or defined in terms of each other. For example, in the sentence

I have one son and two daughters.

'one' has clearly nothing to do with 'the same'; and in the sentence:

They came at the same time.

'the same' has nothing to do with 'like'.

Non-compositional semantic relations of different kinds are real and important, and they offer an interesting field for research (see Goddard and Wierzbicka 1994a). But they must not be confused with compositional relations, which can be revealed by definitions (such as, for example, that between *asleep* and *awake*, or between *dead* and *alive*).

8.6. Recurrent Polysemies

Non-compositional semantic relations are often reflected in recurring polysemic patterns involving two, or more, different primitives. Of course, no natural language will ever be found in which the word for 'I' will be the same as the word for 'you', or the word for 'big', the same as the word for 'small': since the combinatorial possibilities of both elements within each pair are the same, polysemy of their exponents would lead to intolerable confusion. Other non-compositional relations, however, are often reflected in recurring polysemic patterns.

For example, in some languages the word for THE SAME is the same as the word for ONE, or the word for THIS is the same as the word for HERE; there are also languages in which the word for WANT is the same as the word for SAY, or where the word for DO is the same as the word for HAPPEN. This doesn't mean, however, that in those languages people do not distinguish the concept ONE from the concept THE SAME, or the concept WANT from the concept SAY; or that they have no words to express some of these concepts. They do have words for all of them, and if some of these words are polysemous (and mean, for example, (1) 'one', (2) 'the same', or (1) 'want', (2) 'say'), the different meanings of such polysemous words can be easily distinguished on the basis of distinct grammatical frames associated with each of them. (For examples and discussion, see Wierzbicka 1994b).

8.7. Resonance

Since every language embodies a unique semantic system and reflects a unique culture, the exponents of universal semantic primitives in different languages often "feel" different (to both native speakers and to linguistic experts on these languages). For example, it is easy to believe that in the Papuan language Kalam, where the words for KNOW, THINK, SEE, and HEAR all share the same verbal formative *ŋj* (Pawley 1994), these words "feel" somehow different in meaning from the corresponding English words (which are formally unrelated to each other). Or if the word for FEEL is polysemous between 'feel' and 'stomach' (as is the case with the word *tjuni* in the Australian language Yankunytjatjara, see Goddard 1994b), it is easy to believe that this word "feels" different from the English word *feel*, or from the Acehnese word *rasa* (a borrowing from Sanskrit; Durie *et al.* 1994).

Differences of this kind are real and important, and they are acknowledged in the NSM notion of "resonance" (first articulated by Goddard at the 1992 Semantics Symposium in Canberra). They must not be confused, however, with semantic differences *sensu stricto*.

8.8. Canonical Sentences

Most sentences uttered in any one language cannot be translated into other languages without some loss, and/or addition, of meaning. The NSM theory hypothesizes, however, that there are also some kinds of sentence which can be translated—without loss and/or addition of meaning—into any language whatsoever. These are sentences formulated in "local representatives" of universal semantic primitives, according to the universal syntactic rules (that is, rules for combining the primitives). Sentences of this kind include, for example, the following ones:

You did something bad.
I know when it happened.
I want to see this.
These people didn't say anything about this.
If you do this, I will do the same.
This person can't move.

Sentences of this kind are regarded in NSM research as "canonical sentences", which can be used to test the validity of the Natural Semantic Metalanguage (as developed until now), and to seek any weak points which may need revision.

For practical reasons (to make the testing more effective in working with native speakers) it is often useful to include in the set of canonical sentences

some which are not composed exclusively of primitives. For example, if we want to check whether a language has words for the primitives ONE and TWO, it is practical to use sentences like the following:

I have two sons and one daughter.

even though the concepts of 'son' and 'daughter' are not universal, and the words glossed as 'son' and 'daughter' may not match semantically across language boundaries (for some languages may distinguish a man's son or daughter from a woman's son or daughter).

The notion of a canonical sentence both in the strict sense (primitives only) and in the broader sense (primitives with a controlled admixture of non-primitives) has proved to be a valuable tool in cross-linguistic semantic research (see Goddard and Wierzbicka 1994b). In the future, this notion may also prove useful in the cross-cultural study of language acquisition and cognitive development; and may answer, in some measure, the call frequently voiced by child language researchers "for a more powerful cross-linguistic methodology" (Johnston 1985: 996).

9. Past, Present, and Future of NSM Semantic Theory

Since its inception in the mid-sixties, the basic assumptions and goals of the NSM theory have remained unchanged: the search for universal semantic primitives, the avoidance of artificial "features" and "markers", the rejection of logical systems of representation, the reliance on natural language as the only self-explanatory system for the representation of meaning. At the same time, the theory has not stood still; on the contrary, it has been constantly developing. These developments could be said to have gone in six main directions:

1. the proposed set of primitives has considerably increased;
2. the search for primitives came to be identified with a search for lexical universals;
3. the search for lexical primitives came to be combined with a search for universal syntactic patterns (that is, for universally available combinations of primitives);
4. the pursuit of, first, primitives and then their combinations grew into a broader programme of building a full-scale "natural semantic metalanguage";
5. the theoretical underpinnings of the whole enterprise became gradually more and more clearly articulated (as discussed in Section 8);
6. the range of domains, languages, and cultures to which NSM theory was applied, and against which it was tested, expanded substantially.

These developments cannot be discussed here comprehensively; a few brief comments on each of them, however, are in order.

1. NSM theory started as a search for lexically embodied indefinable concepts, or semantic primes, identified as such by trial and error, within one language (any language). The first tentative list of primitives identified in this search was published in my book *Semantic Primitives* in 1972. It included fourteen elements.

As the proposed primitives were tested against an increasing range of semantic domains, most of them (on present count, eleven of the fourteen) proved themselves effective tools in semantic analysis. But at the same time it became increasingly clear that the minimal set of fourteen was insufficient. (See Wierzbicka 1989b.)

A major impulse for their expansion was the Semantic Workshop held in Adelaide in 1986, and organized by Cliff Goddard and David Wilkins, where Goddard proposed a number of new primitives for further investigation. (See Goddard 1986a, 1989a.) As the consecutive expanded sets were tested in semantic analysis, the process repeated itself, and expansion continued. (For the current head count, see Chapter 2.)

The process of expansion greatly facilitated semantic analysis of numerous semantic domains and made it possible to formulate semantic explanations that were much more readable and intuitively intelligible than those based on earlier, leaner sets. The theoretical "cost" of this expansion lay in the need to abandon the Leibnizian principle of mutual independence of primitives. In the early versions of the NSM theory, if the elements appeared to be semantically related (as, for example, 'good' and 'want', or 'the same' and 'other'), it was assumed that at least one of them must be semantically complex (on the grounds that if two elements share a common part they must have parts, and therefore cannot be semantically simple).

This assumption was never strictly adhered to, however. For example, I, YOU, and SOMEONE were regarded as primes from the outset, even though they are intuitively related (for every "I", and every "you", is a "someone"). In time, the assumption of mutual independence of primitives was rejected altogether, and it was recognized that primitives can be intuitively related (as "I" and "someone" are), without being compositionally related and without being decomposable (that is, definable).

2. The first proposed primitives were identified, by trial and error, on the basis of a handful of European languages. With time, through the work of experts on many diverse languages, the empirical basis grew considerably, including, among others, languages as diverse as Chinese (see e.g. Chappell 1983, 1986a,b), Ewe (Ameke 1986, 1987, 1990, 1991), Japanese (Travis 1992; Hasada 1994), Malay (Goddard 1994c), the Austronesian languages Mangap-Mbula (Bughnagen 1990), or the Australian languages Yankunytjatjara (Goddard 1990, 1992a,b) and Arrernte (Wilkins 1986;

Harkins 1992). This expansion culminated in *Semantic and Lexical Universals* (Goddard and Wierzbicka 1994b), mentioned earlier.

A priori, one might have expected that the process of testing a hypothetical set of primitives across a wider range of languages would lead to a reduction of the proposed set (as one proposed primitive after another would fail to show up in this or that language). On the whole, however, this has not happened. On the contrary, the list of primitives has shown a tendency towards gradual expansion.

3. For a long time, research into the syntax of the proposed primitives lagged behind that into the primitives themselves—a point commented on by several reviewers (e.g. McCawley 1983). This delay, though unfortunate, was dictated by the nature of things: one can hardly investigate the patterns of combination of primitives before one has some idea of what the primitives are. The first article devoted primarily to the syntax of the primitives was my "Lexical Universals and Universals of Grammar" (Wierzbicka 1991c). The Symposium on the Universal Syntax of Meaning held in Canberra in July 1994 (organized by Goddard and myself) launched a major programme of research in this area across a number of languages.

4. The building of the Natural Semantic Metalanguage was, and continues to be, a gradual process. In contrast to more speculative semantic theories, NSM constantly seeks confirmation—or disconfirmation—in large-scale descriptive projects. For example, in my *English Speech Act Verbs* (Wierzbicka 1987a) I attempted to analyse the meaning of more than 200 English verbs; and more recently, in a series of articles on another conceptual domain (see e.g. Wierzbicka 1990c, 1992e, 1994c) I have similarly sought to analyse at least 100 English emotion terms.

It is through descriptive projects of this kind that the inadequacies (as well as the strengths) of successive versions of NSM became apparent, and that future directions of development could be seen more clearly. Perhaps the most important direction had to do with the growing simplification and standardization of the syntax of explications, linked directly with the search for universal syntactic patterns.

5. The theoretical underpinnings of NSM research were gradually articulated more clearly, and its methodology formulated more explicitly, as important theoretical concepts like "polysemy", "allotaxy", "valency option", "non-compositional relationship", and "resonance" were gradually clarified and more rigorously articulated (see Section 8; also Goddard 1994c; Goddard and Wierzbicka 1994b). The Symposium on Semantic and Lexical Universals held in Canberra in February 1992 and organized by Cliff Goddard and myself played an important role in this regard.

6. Over the years, the range of domains to which NSM research addressed itself has continued to expand, including not only lexical semantics (as in, for example, Goddard 1990, 1991a; Travis 1992; Hasada 1994;

Ameka 1990; Wierzbicka 1985, 1987*a*), but also the semantics of grammar (e.g. Ameka 1990; Chappell 1986*a,b*, 1991; Wierzbicka 1988) and pragmatics (e.g. Ameka 1987; Goddard 1986*b*; Harkins 1986; Wierzbicka 1991*a*; Wilkins 1986). Furthermore, this research has expanded into more direct comparison of cultures, via their lexicon, grammar, conversational routines, and discourse structure (e.g. Ameka 1987; Goddard 1992*b*, forthcoming *c*; Harkins 1994; Wierzbicka 1991*a*, 1992*a*; Wilkins 1992). Most recently, NSM research has moved into yet another direction, leading to the development of a "theory of cultural scripts", which offers a framework for comparing cultural norms operating in different cultures, a framework based on universal semantic primitives and universal syntactic patterns (e.g. Wierzbicka 1993*e*, 1994*a,d,e*, forthcoming *c*; Goddard forthcoming *b*; Goddard and Wierzbicka forthcoming).

But while all these developments are (as it seems to those involved) significant, NSM theory still has a long way to go. The pursuit of semantic primitives needs to be finalized, the study of the syntax of primitives needs to be more fully developed, the scope of cross-linguistic testing of both primitives and their syntax needs to be substantially widened, language-specific versions of the Natural Semantic Metalanguage need to be built, the NSM-based analysis of culture and cognition needs to be extended to new areas, the theory of cultural scripts needs to be further fleshed out, and so on. This book therefore constitutes an open invitation.

2 A Survey of Semantic Primitives

A. OLD PRIMITIVES

1. Introduction

The set of primitives presented and discussed in this chapter has evolved in the course of nearly three decades of research by myself and colleagues—and it is still evolving. Some of the primitives proposed here are better established than others. Of the fourteen primitives posited in my *Semantic Primitives* (1972) ten have survived nearly a quarter of a century of critical assaults (by myself and others), and (with one exception: PART) the position of these original members of the set can be regarded as particularly strong. This old guard includes the "substantives" I, YOU, SOMEONE, and SOMETHING, the "mental predicates" THINK, WANT, FEEL, and SAY, and the demonstrative THIS.

But the main divide runs between those elements which were tested across a wide range of languages in the project reported in *Semantic and Lexical Universals* (Goddard and Wierzbicka 1994*b*), and those which were not included in that project, and which must, therefore, be regarded as less well established. Accordingly, the present chapter, surveying the primitives, is divided into two parts, called, for convenience' sake, "Old Primitives" and "New Primitives". The set of old primitives includes the following elements:

"substantives"	I, YOU, SOMEONE, SOMETHING, PEOPLE
"determiners"	THIS, THE SAME, OTHER
"quantifiers"	ONE, TWO, MANY (MUCH), ALL
"mental predicates"	THINK, KNOW, WANT, FEEL
"speech"	SAY
"actions and events"	DO, HAPPEN
"evaluators"	GOOD, BAD
"descriptors"	BIG, SMALL
"time"	WHEN, BEFORE, AFTER
"space"	WHERE, UNDER, ABOVE
"partonomy and taxonomy"	PART (OF), KIND (OF)

"metapredicates" NOT, CAN, VERY
 "interclausal linkers" IF, BECAUSE, LIKE.

2. Substantives: I, YOU, SOMEONE, SOMETHING, PEOPLE

2.1. I and YOU

Joseph Brodsky's (1994) poignant recent poem entitled "Infinitive" starts as follows:

Dear savages, though I've never mastered your tongue, free of
 pronouns and gerunds,
 I've learned to bake mackerel wrapped in palm leaves and favor raw
 turtle legs,
 with their flavor of slowness.

For the poet, the factual inaccuracy of the image does not matter, but the fact of the matter is that there are no tongues in the world (no matter how "savage") which would be "free of pronouns and gerunds". Of gerunds, yes, but of pronouns, no. In particular, there are no languages in the world which would be "free" of words for I or YOU (in the sense THOU). This is not to say that claims have never been made—not only in poetry, but also in scholarly literature—that languages "free of personal pronouns" do exist, but notions of this kind have never been substantiated and they must be regarded as fanciful. (See Wierzbicka 1994b.)¹

It is true that many languages, especially South-east Asian languages, have developed a number of elaborate substitutes for "you" and "I", and that in many circumstances it is more appropriate to use some such substitute than the barest, the most basic, pronoun. For example, in a polite conversation in Thai, the use of the basic words for "you" and "I" would sound crude and inappropriate. Instead, various self-deprecating expressions would be used for "I" and various deferential expressions for "you". Many of the expressions which stand for "I" refer to the speaker's hair, crown of the head, top of the head, and the like, and many of the expressions which stand for "you" refer to the addressee's feet, soles of the feet, or even to the dust underneath his feet, the idea being that the speaker is putting the most valued and respected part of his own body, the head, at the same level as the lowest, the least honourable part of the addressee's body (see Cook 1968). But this does not mean that Thai has no personal pronouns, no basic words for "you" and "I".

¹ Harré (1993) claims to have shown that the concept 'I' has no lexical exponents in Wintu, Kawi, and Japanese; for detailed refutation of these claims see Goddard (1995).

A language may not make a distinction which would correspond to that between the words "he" and "she", and in fact many languages, for example Turkish, have just one word for "he" and "she", undifferentiated for sex. But no known language fails to make a distinction between the speaker and the addressee, i.e. between "you" and "I". This does not mean that the range of use of the words for "you" and "I" is the same, in all languages. For example, in Thai, the word *chǎn*, which Thai-English dictionaries gloss as "I", has a range of use incomparably more narrow than its English equivalent. When used by women, it is restricted to intimates, and it signals a high degree of informality and closeness; when used by men, it signals superiority, rudeness, disrespect (Treerat 1986; Cook 1968). But since there are no invariant semantic components which could be always attributed to *chǎn*, other than "I", the heavy restrictions on its use must be attributed to cultural rather than semantic factors. In a society where references to oneself are in many situations expected to be accompanied by expressions of humility or inferiority, a bare "I" becomes pragmatically marked, and it must be interpreted as either very intimate or very rude. But this pragmatic markedness should not be confused with demonstrable semantic complexity (see Diller 1994).

The universality of I and YOU (brilliantly guessed by Wilhelm Humboldt, in the early days of typological linguistic investigations, and reasserted by Boas (1911; see also Ingram 1978)) tallies well with the indefinable nature of these two concepts: while attempts to define them (e.g. in terms of "speaker" and "addressee"; see e.g. Reichenbach 1948: 811) have often been undertaken, these attempts have never been successful. Words such as "speaker" and "addressee" are neither universal nor semantically simple. Roughly speaking, "the speaker (of some words)" is "the person who says these words"; and "the addressee (of some words)" is "the person to whom these words are said".

Furthermore, if "I" doesn't mean "the speaker", "the speaker" doesn't mean "I". For example, if I whisper to the person next to me "I don't like the speaker", I mean neither that "The speaker doesn't like the speaker", nor that "I don't like myself". Similarly, if someone asks me "Who are you speaking to?" and I reply "I'm speaking to you", I can hardly mean that "I'm speaking to the person to whom I am speaking", or that "The speaker is speaking to the person to whom the speaker is speaking" (see Sørensen 1963: 96).

Finally, the idea of "I" is not necessarily tied to speech: we rely on the concept of "I" in our thoughts, as well as in our speech. For example, if I think to myself "I want to do something (X) today", I do not think of myself as "the speaker", but simply as "I".

From this point of view, Russell's attempted definitions of 'I' ('I—the person experiencing this' (1964: 85), and 'I—the biography to which this

belongs' 1965: 107)) are perhaps more plausible than Reichenbach's (since they do not refer to speech), but on the whole they are hardly convincing either: whether uttered aloud or thought silently, the sentence "I want to go now" can hardly mean 'the person experiencing this wants to go now', or 'the person to whose biography this belongs wants to go now'. As pointed out by Sørensen (1963: 96), "I" and 'you' are signs in the first and the second person respectively ... Now, whatever the difference between first, second, and third person signs may be, *there is a difference*, a difference of meaning ... Therefore, a sign in the third person cannot be semantically identical with a sign in the first or second person". (See also Castañeda 1988.)

Of course "I" can sometimes be intended as *referentially* identical to a "third person sign", such as, for example, "the author of these lines", or as the expression "this person" accompanied by a self-directed gesture; but clearly, neither "the author of these lines" nor "this person" mean the same as 'I', and even from a referential point of view, expressions such as "the author of these lines" or "this person" are not always equivalent to 'I'.

2.2. SOMEONE and SOMETHING

All languages have words for WHO and WHAT, and can distinguish lexically between the questions "What is this?" and "Who is this?" The distinction between 'who' and 'what', 'someone' and 'something', 'person' and 'thing' provides the most fundamental form of human categorization (for while YOU and I are also fundamental to human thinking, they do not categorize the contents of the world).

It is impossible to define 'someone' or 'something' in any simpler terms. In English, the apparent morphological complexity of the words *someone* and *something* may suggest the idea that these words are in fact decomposable (into 'some' + 'one', and 'some' + 'thing'). But of course *someone* doesn't mean the same as 'some one', and *something* doesn't mean the same as 'some thing'.

When the words *who* and *what* are used in questions, the concepts 'someone' and 'something' are combined with an interrogative meaning ('I want to know something', 'I want you to say something'), but this interrogative meaning is not an inherent part of the words *who* and *what* as such. For example, when used in so-called "embedded questions",

I know (don't know) who did it.

I know (don't know) what you see.

who and *what* do not express an interrogative meaning at all. Rather, sentences of this kind can be interpreted as follows:

I know this about someone: this someone (this person) did it.

I know this about something: you see this something (this thing).

(The expressions *this someone* and *this something*, which sound awkward in English, will be discussed in Chapter 3.)

In linguistic literature, the distinction between SOMEONE and SOMETHING, which plays an important role in the grammar of many languages, is often represented in terms of binary features, such as $\pm$ HUMAN, or $\pm$ ANIMATE, or $\pm$ PERSONAL. But accounts of this kind are a good example of pseudo-analysis, since the features which are invented to account for the difference between SOMEONE and SOMETHING themselves need to be defined (or explained) in terms of SOMEONE and SOMETHING. For example, the sentences

I met someone nice.

I saw something interesting.

can hardly be paraphrased (except in jest) along the following lines:

I met a nice human (animate, personal), thing (entity).

I saw an interesting non-human (inanimate, impersonal) entity.

As I argued in *Lingua Mentalis* fifteen years ago, to substitute "entity" for *someone* and *something* is to avoid the categorization embedded in all natural languages and to try to replace it with an artificial device alien to them. The distinction between "persons" and "non-persons" is quite fundamental to human conceptualization of the world. Natural languages differ in this respect sharply from artificial languages relying on the abstract notion of "referential indices". Linguists who have assumed that the language of symbolic logic is a suitable tool for analysing natural language have sometimes taken for granted that the notion of "semantic prime" can be identified with the notion of "atomic predicate", because what logicians describe as "arguments" can be simply thought of as indices. (This applies, in particular, to "generative semanticists"; see e.g. McCawley 1973: 334.) But natural languages don't work like that. The distinction between SOMEONE and SOMETHING is basic for them and cannot be reduced to any difference between predicates.

To put it differently, the concept of SOMEONE (a 'person') is essential to human conceptualization of the world, and despite all the differences in cultural context and cultural interpretation (see e.g. Shweder and Bourne 1984), it has a stable, irreducible core across all languages and cultures (see Spiro 1993; Wierzbicka 1993b); no language and no culture blurs the fundamental divide between SOMEONE and SOMETHING.

2.3. PEOPLE

As the evidence reported in *Semantic and Lexical Universals* (Goddard and Wierzbicka 1994b) illustrates, all languages appear to distinguish, in one way or another, between a more general notion of SOMEONE, or BEING (human or non-human), and a notion of PEOPLE (necessarily human). For example, *someone* (and *who*) can refer to God:

Who created the world?—God.

God is someone infinitely good and merciful.

But the word *people* (which is inherently “plural”) cannot refer to any group of beings other than human beings (not even to the very human-like gods of the Greek Olympics).

The well-known fact that in many languages, the word for ‘people’ is also used as a tribal name is (as pointed out by Greenberg 1966a: 26) clearly a case of polysemy, comparable to the polysemy of the English word *man* (1) a male human being, (2) a human being, and not evidence that a word for ‘people’ may be missing.

It is a striking fact that in many languages the word for *people* has a different stem from the word for an individual human being, and doesn’t look like an ordinary plural. The English word *people* is a good case in point. Similarly, in German, French, and Russian the words *Leute*, *gens*, and *ljudi*, ‘people’, are all different from the words for an individual human being (*Mensch*, *homme*, and *čelovek*, respectively). By itself, this formal difference doesn’t prove anything about the semantic relationship, but it is certainly highly suggestive, and it tallies well with the semantic fact that it is impossible to define *people* in terms of *someone* and something else (or indeed in any other way).

On the other hand, if we accept that both *someone* and *people* are irreducible semantic primitives, numerous other concepts can be explicated via these two.

For example, every language has a large number of words referring to “cultural kinds” (see Lyons 1981), that is, to human artefacts, such as, for example, *cup*, *mug*, *bottle*, *boomerang*, *chair*, and so on. All these words make references (in their semantic structure) to people, because they designate objects “made by people”, “used by people”, and physically defined with reference to the human body. (For example, cups are made by people, for people to drink from; they are made in such a way that people can hold them in one hand, and so on. For discussion, see Wierzbicka 1985.)

In addition to names of material artefacts, there are also numerous words referring to social life (e.g. *society*, *tribe*, *family*, *committee*, and so on), to human emotions (e.g. *shame*, *embarrassment*, *pride*), to language (e.g. *language*, *dialect*, *slang*), and so on, which refer in their meaning to ‘people’.

The status of PEOPLE as a fundamental element of human thought is reflected in various ways in the grammar of innumerable languages. For example, in Polish nominal declension, masculine nouns referring to people have an accusative plural identical in form with the genitive, whereas nouns referring to things and animals have an accusative plural identical in form with the nominative. (Cf. also the so-called “hierarchy of agentivity” discussed, for example, by Silverstein 1976, Dixon 1979, Comrie 1989, Mallinson and Blake 1981, and Wierzbicka 1981, in which the category “human” plays a prominent role.)

The hypothesis that the concept of PEOPLE is a conceptual primitive is consistent with the results of recent studies of language acquisition. For example, as pointed out by McShane (1991: 197), Carey (1985) “found that children initially organize biological knowledge around humans as a prototype. Inferences about biological properties of other species are based both on what children believe about humans and how similar the other species is to humans.” Jackendoff (1992) talks in this connection about “a faculty of social cognition”. Referring to Katz, Baker, and Macnamara’s (1974) finding that children as young as 17 months know that proper names can be applied to people and people-like objects such as dolls but not to inanimate objects such as boxes, he comments: “That is, they seem predisposed to make a cognitive distinction between persons and everything else—the distinction I am claiming is pertinent to social cognition—and they are predisposed as well to find a linguistic distinction that encodes this difference.” The evidence from cross-linguistic semantic investigations points in the same direction.

Finally, the hypothesis that the concept of PEOPLE is, in all probability, a semantic universal and a conceptual primitive offers a solution to the old and apparently insoluble problem of how the notion of ‘human being’ can be defined. Is a human being a ‘featherless biped’, as the cynics maintained in ancient Greece? Or is it a ‘rational animal’, as medieval philosophers used to claim? Or is it perhaps, as the French writer Vercors (1956) once maintained, ‘a being endowed with a religious sense’? All these and other definitions are clearly deficient, and it is a relief to be able to go back to Pascal’s (1667/1963: 579) view that the notion is basic and that all attempts to define it must fail.

Linguistic evidence suggests, however, that Pascal’s view requires a correction. It is not the notion of an individual human being, *l’homme*, which appears to be universal and indefinable, but the notion of PEOPLE, a social, rather than biological, category. Given the universal presence of the concepts PEOPLE, SOMEONE, and ONE, the notion of an individual human being does not need to be regarded as primitive. But it is impossible to define both ‘human being’ and ‘people’; and cross-linguistic evidence suggests that it is the latter, not the former, concept which is indeed universal (see Goddard and Wierzbicka 1994b).

If we think of universal semantic primitives as innate concepts, the idea that a social category of PEOPLE may be innate is unexpected, and it certainly gives food for thought. If we are 'rational animals' (with the notions of THINK and KNOW being part of our genetic endowment), we are also 'social animals', so much so that the idea of PEOPLE as a social category is also a part of this endowment. In fact, of course, according to the innate and universal folk model (see Bruner 1990), we are not 'animals' at all: we are PEOPLE, every single one of whom is also SOMEONE and 'I'—all irreducible and apparently universal human concepts.

3. Determiners: THIS, THE SAME, OTHER

3.1. THIS

The word *this* and its counterparts in other languages provide a basic means for identifying what we are talking about; and in any language, as in English, one can point to an object or a person and say something that means 'this', 'this thing', or 'this person'.

It is impossible to define the concept of THIS in terms of any simpler concepts; and while technical labels such as "deictic" or "demonstrative" are sometimes mistaken for a statement of meaning, presumably nobody would argue that, for example, *this dog* means 'deictic dog' or 'demonstrative dog'.

What linguists do sometimes argue is that *this* means 'near the speaker'. But this is an illusion, too—first of all, because *near* (in non-metaphorical use) always refers to spatial relations, whereas *this* is not restricted to space (compare e.g. *this day*, or *this song*), and second, because if I point to one of my own teeth and say "This tooth hurts", this can hardly be interpreted as "the tooth near the speaker" (see Fillmore 1975a).

Despite occasional claims to the contrary, careful examination of the available cross-linguistic evidence suggests that all languages have a clear and unproblematic exponent for THIS. The other demonstrative pronouns often do not match semantically across language boundaries (for example, of the three Japanese demonstrative pronouns *kono*, *sono*, and *ano*, neither *sono* nor *ano* corresponds exactly to English *that*, but *this* can be matched semantically with *kono*). In particular, it is not the case that (as has sometimes been claimed) some languages lexically distinguish 'this, which I can see' from 'this, which I cannot see', without having a basic, unmarked term for THIS.

For example, Cecil Brown's (1985: 287) suggestion that the Gidabal dialect of the Australian language Bandjalang doesn't have an exact semantic equivalent for the English word *this* because the nearest Gidabal equiv-

alent implies 'visibility' as well as 'thisness' is refuted by Crowley's (1978: 72) authoritative study of Bandjalang, which makes it clear that the so-called "visible" demonstrative *gaya* is in fact unmarked, and that the closest Bandjalang equivalent of *this* doesn't mean 'this, which I can see', but simply 'this'.

What is controversial here is not the statement that the Gidabal word *gaya* has a range of use somewhat different from that of the English word *this*, but the claim that this difference in use is due to a specifiable semantic difference: 'this' (in English) versus 'this, which I can see' (in Gidabal). Differences in the range of use can sometimes be explained in terms of factors other than the semantic. But the presence of a *specifiable semantic* difference could not be reconciled with the claim that two lexical items have the same meaning. Experience shows, however, that reports concerning alleged semantic differences cannot be accepted at face value.

3.2. THE SAME and OTHER

The "determiners" THE SAME and OTHER appear to be used, universally, in sentences such as the following ones:

It happened in the same place, not in another place.

It happened at the same time, not at another time.

She did (said/thought/wanted) the same.

I saw it, and two other people saw it.

It was not the same fish, but it was the same kind of fish.

(English sentences such as "Give me another beer!" illustrate a language-specific, not a universal, use of the word *other*.)

The element THE SAME corresponds to a fundamental logical relation of "identity", which occupies a prominent place in the philosophical and logical literature on thought, knowledge, and logical relations in general. OTHER may seem to be no more than a negated version of identity (as I argued myself in Wierzbicka 1989c), but in fact a phrase such as "I and two other people" cannot be reduced to 'the same' and negation.

Both concepts, THE SAME and OTHER, are lexical universals, and they both play a considerable role in the lexicon and in grammar. For example, they are needed to account for the meaning of many conjunctions and particles, such as *also*, *too*, or *otherwise* (see Goddard 1986b; Wierzbicka 1991a), as well as for that of grammatical "reference-tracking" devices, such as, for example, "switch reference".

Exponents of both THE SAME and OTHER are often involved in common polysemic patterns, in particular, one linking THE SAME with ONE, and another, linking OTHER with SOMEONE (see Goddard and Wierzbicka 1994b); in each case, however, the polysemic knots can be

disentangled and the distinctness of the two concepts in a given language can be upheld.

4. Quantifiers: ONE, TWO, MANY (MUCH), ALL

4.1. ONE, TWO, MANY (MUCH)

Fantasizing about his "UP" (Universal People), Donald Brown (1991: 139) writes: "UP language contains both proper nouns and pronouns. The latter include at least three persons and two categories of number. Their language contains numerals, though they may be as few as 'one, two, and many'." Empirical evidence surveyed in *Semantic and Lexical Universals* (Goddard and Wierzbicka 1994b) supports the view that all languages have words for at least these three quantifiers: ONE, TWO, and MANY (as well as for ALL, and, probably, SOME OF; see Part B of this chapter).²

The element ONE can appear, universally, in sentences such as the following ones:

- They have two sons and one daughter.
- They don't have two sons; they have one son.

In grammar, ONE plays an important role in the widespread (though of course not universal) category of "singular". In fact, the category of "plural", too, is based semantically on the concept ONE (since in its prototypical uses it means, usually, 'more than one').

The element 'TWO' is needed to account for the meaning of body part words such as *eyes*, *ears*, or *hands*, as well as for the meaning of numerals; and it plays a significant role in grammar in the widespread category of dualis (see Humboldt 1827/1973).

Turning now to the third quantifier listed by Donald Brown, that is, to MANY, I will note, first of all, that while all languages do appear to have a word to translate the English word *many*, this word doesn't have to make any overt distinction between 'many' and 'much'. Unlike the words for ONE and TWO, the counterparts of *many* do not necessarily imply distinctness.

For example, in Polish, the word for both 'many' and 'much' is *dużo*, in Russian, *mnogo*, in French, *beaucoup*, and in Japanese, *takusan*. It is true that in those languages which have an obligatory category of nominal number, the distinction between 'much' and 'many' will be reflected in the number of the head noun; for example, in Russian, in the phrase *mnogo vody*, 'much water' (a lot of water), the word for water is used in the genitive singular, whereas in the phrase *mnogo sobak*, 'many dogs', the word for dogs is used in the genitive plural. But in Japanese, which doesn't have an obligatory category of number, there is no corresponding formal distinction, and the word *takusan* covers both 'much' and 'many'.

From the point of view of a speaker of English, it may seem that a word like *takusan* must be polysemous and have two distinct meanings ('much' and 'many'). But from the point of view of a speaker of Japanese, such a conclusion would seem counter-intuitive, and it would seem more natural to say that the English words *much* and *many* are simply two allomorphs (i.e. alternative exponents) of one primitive concept ('*takusan*'), and all things considered, this "Japanese" point of view appears to be more justified. It is true that to a speaker of English the words *much* and *many* appear to have different meanings, and that, for example, the phrase *many chickens* means something different from *much chicken*, but this difference (to do with discreteness) can be attributed to the head noun (with the assumption that, for example, *chicken* is polysemous in English), and so it can be argued that the two words (*much* and *many*) are in fact in complementary distribution.

Leaving aside, then, the issue of the distinction between *much* and *many*, let us turn to the question of the semantic simplicity (or otherwise) of the concept in question. Here, the only plausible approach to semantic decomposition would presumably be to try to reduce *much/many* to 'more', along the lines envisaged by Sapir (1949: 125):

It is very important to realize that psychologically all comparatives are primary in relation to their corresponding absolutes ("positives"). Just as *more men* precedes both *some men* and *many men*, so *better* precedes both *good* and *very good*. Linguistic usage tends to start from the graded concept, e.g. *good* (= *better than indifferent*), *bad* (= *worse than indifferent*), *large* (= *larger than of average size*), *much* (= *more than a fair amount*), *few* (= *less than a fair number*).

Quoting this passage a quarter of a century ago (Wierzbicka 1971), I argued that Sapir's thesis that all comparatives are primary (more basic) in relation to their corresponding absolutes is correct with respect to size, number, amount, and dimensions, though wrong with respect to *good* and *bad*, as well as to other "qualitative" kinds of adjectives.

However, in the course of a quarter of a century of research into this and other related matters, I have come to the conclusion that, attractive as

² According to Popjes and Popjes (1986; as reported in Diana Green 1993: 1), "the Canela language, a member of the Jê language family [in Brazil], has no numerals at all; it is limited to general terms like "alone", "a couple", "few", and "many" to express quantities". I expect, however, that if the words in question are carefully tested for polysemy, it will transpire that the word glossed as "alone" can also mean 'one', and that glossed as "a couple" can also mean 'two'. The words for ONE and TWO can of course have many allomorphs. For example, Diana Green (1993: 1) notes that the Palikur language of Brazil has "twenty two words to express the concept of one", and that "nineteen of these words have eleven different forms, making at least 209 ways to say the number one, all spoken in everyday conversation".

Sapir's thesis was, it was not partially wrong but altogether wrong. In particular, it no longer seems plausible that *much* and *many* are semantically based on 'more', whether this relationship is conceived of as 'more than a fair amount/number', 'more than one expects', 'more than the norm', or in any other way. Intuitively, the idea of 'many people' seems more basic than that of 'more people', and the fact that 'many(much)' is, apparently, a lexical universal (see Goddard and Wierzbicka 1994b) supports this intuition. The idea that 'amount' or 'number' may be more basic concepts than 'much/many' is entirely implausible: words such as *amount* and *number* are not universal, they are of course acquired by children much later than *much* or *a lot*, and they constitute abstractions built on the basis of simple ideas such as 'much', 'one', and 'two', rather than offering a foundation for them. (For discussion of this question, see Sections 6 and 7; see also Sections 16 and 23.)

Finally, is 'little/few' (as in "little butter" or "few people") also a conceptual primitive and a lexical universal, on a par with MANY/MUCH? Since 'few/little' appears to be an opposite of 'many/much', just as 'small' is an opposite of 'big', and since the latter two concepts have both been put forward as primitive and universal (see Section 9), it may seem quite clear that 'few/little' should also be proposed as such. But the matter is not so simple, and preliminary investigations suggest that the claim of 'little/few' to the status of a conceptual primitive and lexical universal is weaker than that of its apparent opposite 'much/many', as well as that of the two related opposites 'big' and 'small'. It is possible, in other words, that 'little/few' may prove to be reducible to a combination of 'much/many' and negation ('not much/not many'), whereas 'small' cannot be reduced to 'not big' (see Section 9 below).

Data from child language are certainly suggestive in this respect; while (in English) both the adjectives *big* and *little* appear very early and are used very frequently in child language (see e.g. Braine 1976; Section 8) and while the words *a lot* and *lots* also frequently occur in transcripts of child language (see e.g. French and Nelson 1985) the same does not seem to be true of the words *few* and *little* (as an opposite of *a lot*). But the matter requires further investigation.

4.2. ALL

ALL was proposed as a semantic primitive by Goddard (1989a). In *Lingua Mentalis* (Wierzbicka 1980) I had argued that this concept was not indefinable because it could be analysed along the following lines:

All dogs are faithful. =

one can't say thinking of a dog:

this (dog) is not faithful

As pointed out by Goddard, however, this kind of analysis may seem convincing from a purely logical point of view, but not from the point of view of psychological plausibility. The suggested analysis seems particularly unconvincing when applied to volitive or expressive utterances, such as "Regards to all!" or "To hell with it all!"; it seems hardly plausible to paraphrase them as follows:

Regards to all. =

one can't say thinking of someone:

I don't (send) regards to this person

To hell with it all. =

one can't say thinking of something:

I don't want this to go to hell

Similarly, the expression 'that's all', which frequently occurs in the transcripts of young children's speech (see e.g. French and Nelson 1985), can hardly be paraphrased along those lines.

The fact that the word *all* (and, apparently, the concept ALL) appears very early in children's speech (see e.g. Braine 1976) also supports the view that the analysis attempted in *Lingua Mentalis* was psychologically implausible.

ALL plays an important role in both lexicon and grammar. For example, English particles and conjunctions such as *at all*, *almost*, *altogether*, *although*, *all the same*, *also*, *already*, *all right* by their very form hint at the presence of the semantic component 'all' in their meaning, as do also adverbial and pronominal expressions such as *always*, *all over*, *overall*, *everywhere*, *everyone*, *whatever*, *whenever*, and so on; and similar examples could be quoted from other languages. (The evidence for ALL as a lexical universal will be discussed in Chapter 6; see also Goddard and Wierzbicka 1994b.)

Like negation and existence, ALL is accepted as one of the fundamental concepts in logic (as the so-called "universal quantifier"), and from a logical point of view the need for ALL as a universal semantic primitive will no doubt seem obvious and overdue rather than controversial. But semantics has its own point of view, and its own internal logic, which is different from the logic of logical systems. Above all, it requires an anchoring in language universals, which have to be confirmed empirically and not only on the basis of intellectual speculation. For this reason (among others) the concepts 'and' and 'or', indispensable to the logician, have not been proposed in the present system as semantic primitives. But ALL—like NOT—is one of the points where logic and semantics shake hands.

5. Mental Predicates: THINK, KNOW, WANT, FEEL

As argued elegantly by Bruner (1990: 35), "all cultures have as one of their most powerful constitutive instruments a folk psychology ... We learn our culture's folk psychology early", as we learn language early, and the two processes are inextricably linked. A good illustration of Bruner's thesis comes from the area of emotions: not only is the very concept of 'emotion' (and its counterparts in other languages) culturally shaped and determined, to some extent, by language, but every language includes its own taxonomy of emotions, which offers "a set of more or less connected, more or less normative descriptions about how human beings 'tick'" (Bruner 1990: 35).

But in addition to all those culture-specific systems of folk psychology there is, Bruner suggests, a universal, innate folk psychology which constitutes a basis and a starting-point of all further developments: "We come into the world already equipped with a primitive form of folk psychology" (1990: 73).

Cross-linguistic investigations reported in *Semantic and Lexical Universals* (Goddard and Wierzbicka 1994b) support and substantiate Bruner's claims; in particular, they allow us to state that the innate and universal "theory of mind" includes the following major constituents: THINK, KNOW, WANT, and FEEL—a finding which converges with recent data on language acquisition, as reported, for example, in Wellman (1990, and, especially, 1994).

The results of the research on lexical universals and on child language acquisition tally well with the results of purely philosophical reflection and conceptual analysis. The indefinability of THINK, of the basic 'cogito', was proclaimed three centuries ago by the Cartesians, and nobody has ever been able to refute their stand on this point. In fact, THINK was for the Cartesians a prime example of an indefinable word (Arnauld 1662/1964: 36): "Obviously, we conceive nothing more distinctly than we conceive our own thought. Nor is there a clearer proposition than 'I think; therefore, I am'. We can be certain of this proposition only if we can conceive distinctly what 'to be' and what 'to think' mean. We require no explanation of these words, since they are words so well understood that in explaining them we only obscure them." A look at dictionary "definitions" of *think* confirms the validity of this view. For example, *The American Heritage Dictionary of the English Language* (AHDOTEL 1973):

to think — to have a thought
thought — the act or process of thinking; cogitation
cogitation — 1. thoughtful consideration; 2. a serious thought

The circularity of these definitions hardly requires a comment. Generally speaking, "definitions" which try to analyse 'thinking' in terms of words

and phrases such as "cogitation", "cognition", "cognitive processes", "conceptions", and the like are almost caricatural examples of the old and persistent practice of "defining" something that is clear via something that is obscure, and something that is simple via something that is complex. (For further discussion of THINK, see Wierzbicka forthcoming *f*.)

What holds for THINK holds also for KNOW, WANT, and FEEL. For example, *Longman's Dictionary of the English Language* (LDOTEL 1984) defines *know* via *cognition*, and *cognition* via *know*:

know — to have direct cognition
cognition — the act or process of knowing that involves the processing of sensory information and includes perception, awareness, and judgment

Not only are these definitions circular, but also they offer a good example of "progress" from simple to complex and from clear to obscure. The same applies to the definitions of *feel* and *want* (in the same dictionary):

feel — to have one's sensibilities markedly affected
want — to have a desire

(with *sensible* being defined as "capable of being felt or perceived", *desire* as "to wish for, want", and *wish* as "to have as a desire").

The universality of "mental predicates" has sometimes been disputed. For example, Hallpike (1979) has claimed that some languages lack exponents of THINK and KNOW, and that their speakers, like children at the "preoperational stage", have no clear concepts of 'thinking' or 'knowing'. As I argue in detail in Chapter 6, this claim is untenable (as is also the notion that pre-school children don't have concepts of 'think' and 'know'; see Wellman 1994).

It has also been sometimes suggested that some languages don't have a word for FEEL, or don't distinguish lexically between FEEL and THINK. On closer inspection, however, these reports, too, turn out to be unfounded. (See Wierzbicka 1994b, 1994c.)

The fundamental status of the concepts THINK, KNOW, WANT, and FEEL is manifested in the important role they play in grammar. For example, KNOW plays an essential role in the systems of mood—with the "declaratives" being based on the semantic component 'I know', and the "interrogative" on the components 'I don't know—I want to know'. Clearly, KNOW—as well as THINK—is also the basis of "evidentials" ('I know because I see', 'I know because I hear', 'I think, I don't say: I know', and so on; see Chapter 15, Section 8). FEEL underlies exclamatory constructions, diminutives, "experienter constructions" of different kinds, and so on, whereas WANT forms the basis of the imperative.

6. Speech: SAY

The universal concept of SAY can be illustrated with the following canonical sentences:

I said something to you.
People say something bad about you.
I want to say something now.

Like the indefinability of mental predicates (e.g. THINK), the indefinability of SAY can best be appreciated by looking at connotations and vicious circles in the attempted dictionary definitions of this word.

The concept of SAY plays an important role in speech as a basis of different illocutionary forces (e.g. in questions which imply: 'I want you to say something'), in the thematic organization of utterances ('I want to say something about this'), and in the basic "subject-predicate" structure of sentences ('I'm thinking about X; I say: Y'). In the lexicon, its most important function lies in the categorization of discourse, since the distinctions between different "speech acts" and "speech genres" shape, to a considerable extent, our interpretation of human interaction. (See Wierzbicka 1987a.)

7. Actions and Events: DO and HAPPEN

The concepts of 'action' and 'event', that is, 'doing' and 'happening', play an extremely important role in human discourse. Essentially, that's what all stories are about: what happened, and what this or that person did. To quote Bruner (1990: 77): "one of the most ubiquitous and powerful discourse forms in human communication is *narrative* ... Narrative requires ... a means for emphasizing human action or 'agentivity'—action directed toward goals controlled by agents." The future, too, is mostly talked about in terms of future events and actions: what will happen to me (or to some other people)? What will I (or somebody else) do? Indeed, it is hard to imagine a language in which people couldn't ask questions of this kind, and to my knowledge no such language has ever been reported.

In human reflections about life the thought of "bad (or good) things happening to people" occupies a central place (see e.g. the characteristic title of a popular work *When Bad Things Happen to Good People*, Kushner 1982); and the notion of 'someone doing something bad' (or, to a lesser extent, 'something good') is at the heart of both ethics and the law.

In earlier work (Wierzbicka 1972, 1980) I tried to define 'happen' in terms of 'becoming', and 'doing' in terms of a combination of 'happening' and 'wanting', but these attempts were not successful, and I have come to

recognize that (as argued by Bogusławski 1991), both DO and HAPPEN have to be accepted as irreducible semantic primitives. Paraphrases such as

You did something bad. = something bad happened because you wanted it

are clearly incorrect, and even if it is true that 'doing' always implies some 'wanting' and some 'happening', these implications cannot be stated satisfactorily in terms of paraphrases. (It is also worth noting that in children's speech, *do* appears very early, and is used very widely; see e.g. Clark 1983: 822.)

Both the concepts DO and HAPPEN play an important role in the grammar of many languages. For example, in so-called "active" languages, such as Dakota, the case of the subject depends on whether the predicate refers to 'doing' or to 'happening'. In fact, the terms "agent" and "patient" (i.e. 'the person who does something' and 'the person to whom something happens') are widely used in the description of most languages, and fundamental grammatical phenomena such as transitivity, passives, or reflexives are defined if not in terms of 'doing' and 'happening' then at least with reference to these concepts (see Chapter 14).

8. Evaluators: GOOD and BAD

Over the centuries, there have been many attempts to define away the concepts 'good' and 'bad'. In most cases, in these attempts 'good' was linked with 'wanting', and 'bad' with 'not wanting': 'good' is what someone (I, people, God ...) wants, 'bad', what someone doesn't want (see e.g. Schlick 1962: 10–11).

With time, however, it has become increasingly clear that attempts of this kind do not and cannot succeed, since it is always possible to present 'good' and 'wanting' (or 'bad' and 'not wanting') in opposition to one another. For example:

I know it is bad to do it, but I still want to do it.
I know it would be good to do it, but I don't want to do it.

It is also possible to juxtapose 'good' and 'want', as in St Paul's famous statement:

For I do not do the good I want, but the evil I do not want is what I do. (Romans 7: 19).

Both by contrasting and by juxtaposing 'good' and 'want' we show that we conceive of them as two separate concepts: if I can say that I can want to do what I think is good, and that I can also want to do what I think is bad,

then it would make no sense to try to reduce 'good' to 'want', or 'bad' to 'not want'.

The (non-compositional) relationship between 'want' and 'good' can be compared to that between 'think' and 'know', in so far as both 'want' and 'think' imply a subjective, individual perspective, whereas 'good' and 'know' imply an objective and inherently valid one. What someone wants may be bad, and may be different from what somebody else wants; similarly, what someone thinks may be wrong, and may be different from what somebody else thinks. But what is "good" (or "bad") is good (or bad) regardless of individual differences in the point of view, and what is 'known' (to anybody) must be true.

Of course people argue about what is 'good' and what is 'bad', but this very fact indicates that by using these words they lay a claim to some objective validity. In other words, people regard different things (and different actions) as good or bad, but they all agree that some things or actions (no matter which ones) can be validly regarded as 'good' or 'bad' (although they may not agree which things or actions).

What applies to the speakers of English (i.e. to the users of the English words *good* and *bad*) applies also to all other languages and cultures: everywhere in the world, people may disagree whether something is 'good' or 'bad', but in doing so, they rely on the concepts 'good' and 'bad'. The fact that—as far as we know—all languages have words for GOOD and BAD (see Hill 1987; Goddard and Wierzbicka 1994b) strongly supports the hypothesis that these two concepts are innate and fundamental elements of human thought (experience can teach us to regard certain things as 'good' or 'bad', but it cannot teach us the very concepts of 'good' and 'bad').

But while the fundamental nature of the concepts GOOD and BAD appears to be well established and well supported by linguistic evidence, one puzzle remains: why is it that (as pointed out by Greenberg 1966a: 52) in many languages the word for BAD looks, from a morphological point of view, like a combination of negation and the word for GOOD, whereas the word for GOOD never looks like a combination of negatives and the word for BAD?

Donald Brown (1991: 131) writes this about his imaginary "Universal People" (UP):

However much grammar varies from language to language, some things are always present. For example, UP language includes a series of contrasting terms that theoretically could be phrased in three different ways, but that are only phrased two ways. To illustrate, they could talk about the "good" and the "bad" (two contrasting terms, neither with a marker added to express negation); or they could talk about the "good" and the "not good" (i.e., not having the word "bad" at all but expressing its meaning with a marked version of its opposite, the marking in this case to negate), or they could talk about the "bad" and the "not bad" (i.e., not hav-

ing the word "good," etc.). Logically, these alternatives are identical: each arrangement conveys the same information. But . . . the third possibility never occurs as the obligatory or common way of talking.

But although, apparently, in some sense GOOD is "unmarked", whereas BAD is (perhaps) perceived as an absence, distortion, or perversion of GOOD, it appears that all languages have a word for BAD, as well as a word for GOOD. The word for BAD may or may not look like a negated version of the word for GOOD, but if the only "opposite" of GOOD to be found in a language looks like a negated version of the word for GOOD then it seems that this word means 'bad' rather than 'not good'.

Where cultures differ is in their willingness to contrast GOOD with BAD: clearly, in some cultures people prefer, in many contexts, to contrast 'good' with 'not good' rather than with 'bad' (presumably, to avoid giving offence). If this is the case, then the word for BAD may seem to be somehow "stronger" in meaning than the English word *bad*. For example, Chappell (1994: 142) writes this about Mandarin Chinese:

GOOD and BAD are semantically asymmetrical in Mandarin, *huai* 'bad' being semantically narrower in its range of application. In this case, the use of simple negation of the morpheme *hao* GOOD which gives *bù hao* might, in fact, be preferable since *huai* is more semantically specialized at its end of the scale to mean 'immoral', 'nasty' or 'evil' than *hao* is on the 'saintly' end of the scale.

I would suspect, however, that differences of this kind (interesting as they are) are due to cultural rather than strictly semantic reasons, and that BAD, like GOOD, is indeed a universal semantic primitive. (For further discussion, see Wierzbicka 1994b: 496–7.) The idea of a 'bad deed', a 'bad person', or 'bad people' may play a greater role in some cultures than in others; for example, it is no doubt more prominent in the Judeo-Christian culture than, say, in Japanese culture, but this doesn't mean that in Japanese culture one cannot speak at all about 'bad actions' or 'bad people' (see Onishi 1994).

To say that 'bad' means the same as 'not good' is a bit like saying that 'black' is the same as 'not white'. If *not good* may sometimes be used as a euphemism for *bad*, it is precisely because the two do not mean the same, and to say to a child "It is bad to lie" is not the same thing as to say "To lie is not good".

To see this irreducible difference between 'bad' and 'not good' it is useful to consider "stronger" words such as *evil*, *vicious* (as applied to actions or people) and words such as *terrible* or *horrific* (as applied to events). It seems hardly necessary to argue at length that an "evil deed" or a "terrible disaster" is not simply "something that is not good".

As for Sapir's idea that, psychologically, 'better' precedes 'good' (and that, by implication, 'worse' precedes 'bad'), it is inconsistent with both

cross-linguistic evidence and evidence from child language: it is 'good', and 'bad', not 'better' and 'worse', which emerge as lexical universals and which commonly occur in transcripts in the data of conversations with young children. Thus, data from cross-linguistic investigations and from child language research converge on this point with in-depth semantic analysis of natural language, pointing to the fundamental, irreducible character of the twin concepts GOOD and BAD.

9. Descriptors: BIG and SMALL

The concepts 'big' and 'small' are particularly easy to identify cross-linguistically: words for 'big' and 'small' are frequently used, easily acquired, and easy to identify (see Goddard and Wierzbicka 1994b). As frequently noted in the literature, the lexical exponents of these concepts are normally not symmetrical, with the word for BIG being treated as, in some way, more basic. For example, the question "How big is it?" does not imply that the object in question is big, whereas "How small is it?" does imply that it is small. (See e.g. Greenberg 1966a: 52-3.)

It is quite tempting, therefore, to try to define SMALL via BIG as 'not big'. But 'not big' does not mean the same as 'small', and one can easily say of something (for example, a dog, or an apple) that 'it is neither big nor small'.

Both BIG and SMALL are of course "relative" terms, in the sense that a small elephant is still quite a big animal, whereas a big mouse is not. As argued by Aristotle in his *Categories*:

Things are not great or small absolutely, they are so called rather as the result of an act of comparison. For instance, a mountain is called small, a grain large, in virtue of the fact that the latter is greater than others of its kind, the former less. Thus there is a reference here to an external standard, for if the terms 'great' and 'small' were used absolutely, a mountain would never be called small or a grain large. (1937: 5^e)

Aristotle's argument is of course persuasive, and it was this kind of reasoning which led me to posit in earlier work (Wierzbicka 1971) an analysis of 'big' and 'small' based on the comparative:

This dog is big, = this dog is bigger than one would expect

(See also Žolkovskij 1964b.) I have now repudiated such analyses, however, and for a number of reasons. First, there is the question about the meaning of the comparative itself: if we define 'big' via 'bigger' we couldn't define 'bigger' via 'big', and we would probably have to accept 'bigger' as a conceptual primitive—a very dubious move, given the apparent universality of

words for 'big' and 'small' and a well-known non-universality of comparatives (see e.g. Longacre 1985: 243). Second, it has become clear that the "relative" character of the concepts 'big' and 'small' can be accounted for without any comparatives, along the following lines:

This is a big dog. =
when I think of dogs, I think: this is a big dog

As mentioned earlier, the words *big* and *little* appear very early in children's speech, and are used very frequently. For example, Braine (1976: 32) draws attention to a productive pattern of two-word combinations with the words *big* and *little* in the speech of his son, Jonathan, before his second birthday. Interestingly, Braine points out that "Jonathan often contrasted two objects in consecutive utterances, for example, *big stick* followed immediately by *little stick*, indicating the relative sizes of the two sticks" and he comments: "This sort of behavior seems sufficient evidence for the productivity of these size-attribution formulae."

But while the kind of behaviour exemplified by Jonathan shows that the words *big* and *little* are felt to be semantically linked, and that their juxtaposition is indeed used for comparison, it does not mean that the concepts in question are semantically "relative" in the sense suggested by Sapir (as discussed in Section 4). The idea that *large* (or *big*) means 'larger than of average size' seems completely incompatible with the frequent and competent use of the words *big* and *little* by infants in the second year of life.³ The pattern of use described by Braine supports the hypothesis that a comparison of size ("X is bigger than Y") is based on a juxtaposition of opposites (next to Y, X is big; next to X, Y is little). It is also consistent with the hypothesis that an "absolute" assessment of size (as in "This is a big dog") refers not only to "this" but also to "dogs" in general ("For a dog, this is a big dog").

It is particularly interesting in this connection to compare Braine's comments on little Jonathan's way of handling comparison and that described by Longacre with respect to the languages of Papua New Guinea:

Comparison in Papua New Guinea is not expressed within a single sentence, but by a pair of sentences within a paragraph. It is, furthermore, really not comparison, but contrast. In Safeyoka (a dialect of Wajekeso), for example, we find pairs of sentences such as 'The black man's boats are small. The white man's boats are huge'. There is no direct way of saying 'The black man's boats are smaller than the white man's boats' or 'The white man's boats are bigger than the black man's'.

³ As Johnston (1985: 980) points out (from a child's point of view), "How can one small shoe be bigger than another small shoe, or a single object be both bigger and smaller?" What this observation shows is that the idea of a "small shoe" or a "big shoe" is (*pace* Sapir) psychologically simpler than that of a "smaller shoe" or a "bigger shoe".

The fundamental nature of the concepts 'big' and 'small' is reflected in the role that they play in the grammar of many languages, in particular in the categories of so-called "diminutives" and "augmentatives".

10. Time: WHEN, BEFORE, AFTER

As pointed out by Keesing (1994), time tends to be exoticized in Western accounts of non-Western languages in cultures. The best example of this exoticization is the account of the Hopi language given by Whorf, who claimed that the Hopi conception of time is radically different from that reflected in European languages. "After long and careful study and analysis, the Hopi language is seen to contain no words, grammatical forms, constructions or expressions that refer directly to what we call 'time', or to past, or future, or to enduring or lasting" (Whorf 1956: 57).

But Whorf's ideas about Hopi have now been refuted in a careful study of the Hopi language by Malotki (1983), whose overall conclusion is that "Whorf's claim about Hopi time conception being radically different from ours does ... not hold" (530).

In a similar vein, Keesing argues that the Kwaio language of the Solomon Islands, which he has studied in detail, has the same basic temporal categories as Western languages do, and that "Kwaio talk about duration and temporality in everyday life much as we do" (1994: 5). In particular, Kwaio has a common word (*alata*) "referring either to points in time or periods in time. ... *Alata* is used as well as equivalent to English 'when' or French 'quand', to introduce temporal clauses, as in: *alata miru nigi i 'Aoke*, 'When we get to Auku'." Keesing concludes (6): "All the evidence available on everyday talk in non-Western languages would indicate that other 'exotic' peoples, like the Kwaio, situate events precisely in time in complex ways, are concerned with duration, and have intricate linguistic devices for coordinating plans and activities."

The cross-linguistic investigations reported in *Semantic and Lexical Universals* (Goddard and Wierzbicka 1994b) point in the same direction: despite all the differences in the conceptualization of, and attitudes to, time, discussed, for example, by Geertz (1966) or Hall (1983), and despite the considerable differences in the linguistic encoding of temporal notions (see e.g. Hopper 1982; Bybee and Dahl 1989), the fundamental temporal concepts encoded in languages of the world appear to be the same. They include: WHEN, AFTER, and BEFORE. (For discussion of durational concepts, see Part B of this chapter.)

Cross-linguistic investigations suggest that, for example, questions such as the following ones are readily available and frequently used in all languages:

When did it (will it) happen?

When did you (will you) do it?

For example, Kwaio "abounds with terms ... that mark times in the diurnal cycle. ... Kwaio talk is sprinkled with these markers of the daily cycle, based on angles of solar deviations diurnally (and such phenomena as dusk and subsequent insect noises, such as *keeani* 'crickets cry'), which allow precise planning and coordination of work, rendezvous, and travel" (Keesing 1994: 6).

It would be quite futile to try to reduce such *when*-phrases to something simpler; and it would be equally futile to try to reduce phrases of temporal succession ('after' and 'before') to something simpler.

If it has often been claimed that a sense of 'whenever' is lacking in "primitive thought" (including, for example, medieval European mentality; see Le Pan 1989: 113), even stronger claims have been made about the alleged absence of the idea of 'temporal succession' in many languages and cultures, and a linear conception of time has often been contrasted with a cyclical one (see e.g. Le Pan 1989: 89). Cross-linguistic investigations suggest, however, that whatever the differences in cultural emphasis and elaboration might be, all languages have words for AFTER and BEFORE, and that in any language one can easily make statements such as "A was born after B" and "B was born before A", or "A died after B" and "B died before A".

What is particularly interesting about these findings is the apparent redundancy of the exponents of temporary succession; for why should all languages have words for both BEFORE and AFTER, rather than for just one of these concepts? Aren't they reducible to one another?

From a logical point of view, indeed, they might be reducible to one another. But the fact that natural languages have lexical resources for expressing both of them suggests that from the point of view of human conceptualization of reality, "Y happened after X" means something different from, and irreducible to, "X happened before Y". Clearly, what matters is a different perspective on the events in question, a different point of view, and, as pointed out by Slobin (1985a: 1181), "the ability to view scenes from different perspectives" is a salient feature of human cognition, clearly reflected in all languages.

It is particularly interesting to see in this connection the early emergence of both 'before' (sometimes realized as *first*) and 'after' in child language. For example (French and Nelson 1985: 110–11; see also Carni and French 1984):

After the birthday, they go home. [age: 3 years, 1 month]

Well, *first* I didn't know how to, but now, when I get dressed, I can put on my pants. [age: 4 years, 2 months]

And my daddy just wants to eat them. Like chocolate cookies. I had one *before* we came here. [age: 3 years, 10 months]

In a narrative, *AFTER* is realized as a simple portmanteau "then", or "and then" (i.e. 'after this'). As Bruner (1990: 79) notes, "Children early start mastering grammatical and lexical forms for 'binding' the sequences they recount—by the use of temporals like 'then' and 'later', and eventually by the use of causals."

11. Space: *WHERE*, *UNDER*, *ABOVE*

What applies to the temporal triad *WHEN*, *AFTER*, and *BEFORE* appears to apply also to the spatial triad *WHERE*, *UNDER*, and *ABOVE*. First of all, evidence suggests that all languages have a word for *WHERE* (*SOMEWHERE*, *PLACE*) distinct from the word for *WHEN*. (See Goddard and Wierzbicka, 1994b.) This word can apply to both entities and events; for example:

Where are you? (Where is this thing?)
Where did it happen?

Since for entities (in contrast to "happenings") 'where' is interpreted as 'being somewhere', in the system posited here 'being somewhere' is regarded as an allolex of 'somewhere'.

As the universality of the words for *WHERE* confirms, *WHERE* is a fundamental human concept, incapable of being defined. In earlier work (Wierzbicka 1972), I have tried to analyse *WHERE* via *PART*, but this attempt led to bizarre and intuitively unacceptable results; and to my knowledge no other, more successful attempts to analyse this concept have ever been proposed.

As for *ABOVE* and *UNDER*, they present the same apparent redundancy as *AFTER* and *BEFORE* do, for if *A* is above *B* then *B* must be under *A*. By itself, this redundancy would not be a reason for not positing them both as primitives: since human minds are not disembodied computers (see Johnson 1987; Edelman 1992), our conceptualization of the world reflects our "embodiment", and also our position on the ground: since we normally walk with the head up, the contrast between *ABOVE* and *UNDER* may not be conceived of as reversible.

None the less, it must be admitted that the case for positing both 'under' and 'above' as semantic primitives (as it was done in Goddard and Wierzbicka 1994b) is not nearly as strong as that for 'before' and 'after'. Intriguing data bearing on this question come from research into child language. In particular, this research shows that while both the concepts

'before' and 'after' emerge early (apparently before the end of the third year; see Carni and French 1984), the spatial pair ('under' and 'above') behaves in a curiously asymmetrical way, with 'under' apparently emerging much earlier than 'above'—and not only in English but also in a number of other languages (see Johnston and Slobin 1979).

Another relevant fact emerging from child language research is that the concepts linked in English with the words *up* and *down* appear very early in children's speech, and are used very frequently (so much so that, for example, in the speech of the 16-month-old Allison Bloom they were among the seven most frequent one-word utterances; see Bloom and Lahey 1978: 114; also Clark 1985: 746). At first, these words apply predominantly to the movements of the child's body, as he or she is being lifted or put back down by the parent (see Bowerman 1976: 167). By contrast, the earliest uses of *under* (and its equivalents in other languages) are no doubt stative, and presumably refer to manipulable objects located temporarily under large objects with more or less fixed location, such as a table or a bed. (The idea of looking for things under the table or under the bed is no doubt more relevant to a small child than that of looking for things "above" something—presumably, partly because of the child's own size and partly because things fall down, rather than rise.)

It is interesting to note in this connection Clark's (1985: 744) observation about the prepositions *sous*, 'under', and *sur*, 'on', being in contrast in French children's speech. It makes a lot of sense to assume that from a child's point of view the likely choice is between interesting objects being under the table or on the table, rather than *under* the table and *above* the table.

Considerations of this kind suggest that while 'under' can be seen as a well-established semantic primitive, 'above' cannot; and also that in future research the notion of 'on' (as in "the box is on the table") should be scrutinized as a possible conceptual primitive (presumably, along with the notions 'up' and 'down').

From a purely logical point of view, 'above' and 'under' may seem to be related in the same way as 'before' and 'after', that is, as converses (see e.g. Apresjan 1974, 1992; Cruse 1986). But since in human experience the spontaneous movement of things is unidirectional (because they fall to the ground, unless supported on some stable surface), the contrast between 'on' and 'under' may be psychologically more real (as far as location of things is concerned) than that between 'under' and 'above'. On the other hand, as far as human action is concerned, the movement 'up' may indeed seem to be directly related to the movement 'down', and at this stage it is difficult to see how one of these concepts could be defined in terms of the other. (For discussion of 'in' and 'inside', see Section B of this chapter.)

12. Partonomy and Taxonomy: PART (OF) and KIND (OF)

12.1. PART

PART is a controversial primitive, partly (no pun intended) because many languages don't have a word with a range of use similar to that of the English noun *part*, and partly because some languages don't seem to have a word for *part* at all.

In proposing PART as a universal semantic primitive, therefore, it is important, first of all, to clarify what uses of the English *part* are meant to illustrate the postulated primitive; and second, to examine how the meaning in question is expressed in a language which doesn't seem to have a word corresponding to the English *part* at all.

In English, *part* can be used in (at least) three different ways. First of all, it can refer to "things" identifiable, so to speak, within larger things, as in the following sentences:

The foot is a part of the leg.

A knife has two parts: a blade and a handle.

A petal is a part of a flower.

Second, *part* can refer to a "piece" of something, that is, to something which cannot be thought of as an identifiable thing before it gets detached from a larger thing (see Cruse 1986: 157). For example:

He ate part of the melon (not the whole melon).

Third, *part* can be used to refer to a subset of a group of discrete entities, including people:

Part of them went to the right, and part went to the left.

In the system of primitives proposed here, the second and third uses illustrated above, which can both be linked with the traditional label "partitive", exemplify the newly proposed primitive SOME (OF) (see Part B of this chapter). It is only the first use, then, which is regarded as corresponding to the primitive element PART.

It is inconceivable how the word *part*, as used, for example, with reference to body parts, could be defined in simpler concepts. It is also inconceivable that a language would fail to provide its speakers with some means for referring to body parts and for saying that, for example, the head is a part of the body, or that the foot is a part of the leg. (See Andersen 1978; C. Brown 1976; Chappell and McGregor 1995).

How does one express such thoughts in a language which does not have a noun corresponding to the English noun *part*? Different languages provide different solutions. For example, in the Australian language

Yankunytjatjara, PART is expressed by means of the so-called 'having' suffix *-tjara* (Goddard 1994b: 254-6):

Yunpa mulya-tjara, tjaa-tjara, kuru kutjara-tjara.
face nose-HAVING mouth-HAVING eye two-HAVING
'A face has a nose, mouth and two eyes (as parts).'

Puntu kutju, palu kutjupa-kutjupa tjuta-tjara.
body one but something many-HAVING
'(It is) one body, but with many parts.' (Romans 12:4)

As noted by Goddard, the suffix *-tjara* is polysemous, but in certain contexts it can only mean 'part'. In particular, Goddard points out that a sentence whose "word-for-word calque rendition . . . could be read as 'This thing has two whats?' has a very clear meaning in Yankunytjatjara, and refers unambiguously to the number of 'parts'":

Pupu nyangatja nyaa kutjara-tjara?
thing this what two-HAVING
'What two parts does this thing have?'

It is undoubtedly true that cultures differ in the amount of interest they show in the concept of 'part'. As argued in Goddard 1989a, modern Western culture places a great emphasis on viewing various aspects of reality in terms of complexes analysable into 'parts', whereas, for example, Australian Aboriginal culture does not. But cultural differences of this kind should not obscure the fact that the concept of PART can also be expressed in those languages whose speakers are less inclined to talk about "parts" in the abstract (in contrast to heads, feet, handles, and other specific kinds of "parts") than are speakers of technologically complex modern societies. (For further discussion, see Wierzbicka 1994b: 488-92.)

The concept of PART plays an important role in the grammar of many languages, mainly because it underlies so-called "possessive constructions" of various kinds. The label "possessive", frequently used in grammatical descriptions, has no constant semantic content, but it is usually used with respect to constructions whose meaning involves the concept of PART.

For example, the so-called "inalienable possession" is usually based on the notion of 'a part of a person' or 'a part of a person's body' (often extended to things which are seen as 'like a part of a person'; see Chappell and McGregor 1995). On the other hand, "alienable possession" is based on a combination of PART and, so to speak, 'disponibility'. The conceptual links between 'parthood' and 'ownership' can be represented along the following lines (partial explications only):

my hand — a part of my body
if I want, I can do many things with it

my car — a car
 if I want, I can do many things with it
 like I can do many things with a part of my body
 other people can't do the same with it

It is not clear when the concept PART first appears in children's speech, although utterances such as "Mommy hand" or "cow tail" are attested at a very early stage (see Braine 1976: 15, 19). Interestingly, Braine (1976: 7) includes also the combination "other part" in his record of one child's earliest two-word combinations. Apparently, 3- or 3-and-a-half-year-olds can already be quite competent in talking about "parts". For example (French and Nelson 1985: 109):

Eat the green part first. ["green part" refers to icing on the cake.]

12.2. KIND

The concept of 'kind' is at the heart of the human categorization of the "contents of the world". The lexicon of every language is full of taxonomic concepts which rely crucially on this concept. For example, in English, a *rose* is 'a kind of flower', an *oak*, 'a kind of tree', and a *parrot*, 'a kind of bird'.

The important role of taxonomic (i.e. 'kind'-based) classification in all languages and cultures has often been denied in the past. In particular, it has often been claimed that in traditional non-Western societies ethnobiological classification is predominantly non-taxonomic—unlike the Western scientific classification, which is based on a hierarchy of kinds. In a classic statement of this position Lévy-Bruhl (1926: 176) wrote:

In spite of appearances, then, these minds, which evidently have no idea of genera, have none of species, families, or varieties either, although they are able to delineate them in their language.

To illustrate this claim, Lévy-Bruhl (1926: 170) repeated with approval remarks made by a traveller about Australian Aboriginal languages:

He states that generic terms such as tree, fish, bird etc. were lacking, although specific terms were applied to every variety of tree, fish or bird. . . . The Tasmanians had no words to represent abstract ideas, and though they could denote every variety of gum-tree or bush by name, they had no word for tree.

Similarly, of American Indians Lévy-Bruhl (1926: 171) says the following (again quoting, with approval, travellers' reports):

almost every species has its particular Indian name. But it would be in vain to seek among them words for the abstract ideas of plant, animal, and the abstract notions colour, tone, sex, species, etc. . . . In California, "there are no genera, no species: every oak, pine, or grass has its separate name."

But while trustworthy recent investigations by anthropologists and linguists have shown that general terms such as 'tree', 'bird', or 'fish', not to mention 'animal' and 'plant', may indeed be scant in a language while more specific words for creatures and plants may be present in abundance (see e.g. C. Brown 1984; Berlin 1992), the idea that a hierarchy of kinds is either absent from, or marginal to, folk-biological classifications has not stood the test of time. (See in particular the evidence and discussion in Berlin 1992.)

First, the apparently universal presence of at least some hierarchical categorization reflected in the lexicon (e.g. 'tree'-'oak'; or 'bird'-'cuckoo') does support the view that taxonomies play an important role in the conceptualization of living kinds, despite Hallpike's (1979: 202) and others' unsupported assertion to the contrary. The semantic relation between terms such as 'tree' and 'oak' can be verified by a variety of linguistic tests, and wherever such tests have been applied they support the view that class inclusion is indeed involved. (See Chapters 11 and 12.)

Second, as pointed out by Berlin (1992: 52-3), in every known language there is a set of words regarded as the "real names" of certain classes of living things. When asked "What is this called?" informants might reply with a folk generic term, with a "horizontal extension" of such a term (e.g. "It is like lilac"), or might say "I don't know", but they will not say, for example, "It is called a bird", or "It is called a bush". The presence of such "real names" establishes beyond any reasonable doubt the psychological reality of the notion of biological species (or "folk genera").

Third, and most importantly (from the present point of view), linguistic evidence suggests that the concept of 'kind' (or 'kinds') is a lexical universal. Ellen (1986: 88) mocks the idea that informants may in the course of their ordinary lives use sentences such as "Is *X* a kind of *Y*?" or "How many kinds of *Y* are there?", but in fact sentences referring to "kinds" of living things are widely attested in traditional non-Western languages. (See Goddard and Wierzbicka, 1994b.) This applies, in particular, to the following types of sentence:

There are three kinds of bat (yam, mango, etc.).

This is not the same fish, but it is the same kind of fish.

It is particularly important that cross-linguistic evidence supports the universality of the distinction between KIND and LIKE (or between categorization and similarity), as illustrated in the following sentence:⁴

⁴ It seems natural to think that things which are "of the same kind" (e.g. cats; or oaks; or daffodils) are also "like each other". Yet recent work in cognitive psychology as well as linguistics has led to the growing conviction that human categorization cannot be reduced to notions such as "likeness" or "similarity". (See e.g. Atran 1990; Carey 1985; Gelman and Coley 1991; Keil 1986; Medin and Ortony 1989; Rips 1989.)

This tree doesn't look like that other tree, but they are the same kind of tree.

But if the concept of KIND cannot be reduced to the concept of LIKE, it can hardly be reduced to any other concept or concepts, and, to my knowledge, no viable decomposition of KIND has ever been proposed. On present evidence, therefore, KIND must be regarded as a universal semantic primitive. (See Wierzbicka forthcoming *d*.)

Finally, it is worth noting that, in children's language, the question "What kind of?" is attested as appearing relatively early, though after 'what', 'where', or 'who' (see e.g. Clancy 1985 on Japanese; Savić 1975 on Serbo-Croatian).

13. Metapredicates: NOT, CAN, VERY

13.1. Negation: NOT

The *not*-relation is one of the simplest and most fundamental relations known to the human mind.

(Royce 1917: 265; quoted in Horn 1989: 1)

Negation is probably the least controversial of all the lexical universals which have ever been proposed. Nobody has ever reported coming across a language without negation, and exponents of negation—unlike those of most other conceptual primitives posited here—are routinely reported in all descriptive grammars.

But while the question of negation as a lexical universal is quite straightforward, the same cannot be said about its status as a conceptual primitive. In fact, to many readers' surprise and even dismay, negation was missing from the list of primitives which I postulated in *Semantic Primitives* (Wierzbicka 1972) and in *Lingua Mentalis* (Wierzbicka 1980); instead, my 1972 and 1980 lists included the elements 'don't want' ('diswant') or 'I don't want' ('I diswant'). (See also Wierzbicka 1967.)

In postulating 'diswanting' rather than negation as a semantic primitive, I was trying to come to grips with the fact that the semantic relation between the phrases "I want" and "I don't want" seems to be different from that between, say, "I know" and "I don't know", or "I do" and "I don't do". "I don't know" (or "I don't do") means, roughly speaking, that 'It is not the case that I know (or do)'. "I don't want", however (on one reading at least), does not seem to mean that 'it is not the case that I want' (as in "I don't particularly want"); rather, it seems to mean that I positively 'diswant' something. It is also true that the interjection *No!* can be used to express a strong 'diswant' ("rejection"), rather than merely a denial of

wanting. By assuming that 'diswanting' was semantically simpler than negation, I seemed to be able to explain such facts. (What was more difficult to explain in that approach was the use of negation in declarative sentences—a point to which I will return below.)

But although my analysis of negation as "rejection" was consistent with a long philosophical tradition of thinking about negation (see e.g. Bergson 1911) and although there is considerable empirical evidence which appears to support it, I have now come to doubt whether it is tenable.

Undoubtedly, acts of "rejection" ('I don't want this!') play an important role in human life, and it is not surprising that "rejection" should have special lexical exponents in many languages (e.g. in Acehnese, Longgu, Samoan, and Kayardild; see Goddard and Wierzbicka 1994b). But although these exponents of "rejection" are often identical with the exponents of negation, this does not necessarily mean that "rejection" is a simple semantic notion, which can be said to underlie all negation. After all, many languages (e.g. Samoan) have also special negative imperatives ('don't!')—despite the fact that 'don't!' is not a simple concept but a semantic molecule analysable as 'I don't want you to do this'.

While accepting the old philosophical notion that all negation implies "rejection", I experimented with a whole series of analyses of declarative sentences, such as, for example, A, B, and C below (for "This is not black"):

- (A) I don't want to say "this is black".
- (B) I don't want someone to think: "this is black".
- (C) I don't want to say: I can think: "this is black".

But none of these analyses seemed quite right, and the "details" seemed always impossible to work out. In particular, it has always seemed difficult to see how complex sentences (e.g. with negation embedded in an *if*-clause) could be plausibly analysed via 'not wanting'. What has finally convinced me that this whole approach to the semantics of negation was probably misguided was a closer examination of data from child language acquisition. Since negation appears very early in children's speech (in the second year of life; see e.g. Braine 1976), it is very hard to believe that spontaneous utterances such as "no wet" (meaning 'I'm not wet'; see Braine 1976: 7) can be somehow based on the idea of 'not wanting someone to think or say something'.

It is true that in early child utterances 'no' frequently means 'I don't want' (e.g. "no mama" is interpreted by Braine 1976: 7 as 'I don't want to go to mama'), but it seems more plausible to analyse "no mama" as 'I don't want ... mama' than "no wet" as 'I don't want someone to say/think that I am wet'.

I have come to accept, then, that 'not' is simply 'not', and that it cannot

be reduced to anything else—not even to the intuitively appealing notion of 'rejection'.

Having reached this conclusion, I would now interpret the three earliest uses of negation identified in child language as "non-existence", "rejection", and "denial" (see Bloom 1991) along the following lines: (1) 'there isn't an X (here)', (2) 'I don't want this', and (3) 'this is not an X', assuming that all these uses involve the use of the same semantic primitive NOT. For example (Bloom 1991: 163):

"non-existence"

(Kathryn not finding a pocket in Mommy's shirt, which had no pocket.)

KATHRYN. no pocket [i.e. 'there is no pocket here']

"rejection"

(Kathryn pushing away a sliver of worn soap in the bathtub, wanting to be washed with new pink soap.)

KATHRYN. no dirty soap [i.e. 'I don't want dirty soap']

"denial"

(Kathryn, Mommy, and Lois looking for the truck.) Where's the truck?

(Mommy picking up the car, giving it to Kathryn.) Here it is. There's the truck.

KATHRYN. no truck [i.e. 'this is not the truck']

Horn (1989: 163) comments on Bloom's "rejection" category of negation as follows:

Bloom's rejection category corresponds to what philosophers—at least since Peirce—have long identified as the SUBJECTIVE or PRELOGICAL negative. Heinemann (1944: 138) glosses this 'prelogical use of negation' as 'I do not wish (will, desire, etc.) that' or 'It is not in my interests that', alongside the 'logical' negation of 'It is not true that'. On this view, the rejection category should antedate both nonexistence and denial; that it does not (at least in Bloom's data) may reflect the difference between possessing a concept and expressing it syntactically.

From a "semantic primitives" point of view, the question boils down to choosing between two solutions (A and B) to the problem of negation: should the "rejection" use of negation be seen as based on a simple semantic element 'I don't want' (in Latin, *nolo*) and the "non-existence" or "denial" use be seen as based on a combination of 'I don't want' and 'say' (solution A); or should rather the 'non-existence' and 'denial' use be seen as based on a simple semantic element 'not', and the 'rejection' use, as based on a combination of three primitives: 'I + not + want' (solution B)?

In earlier work (Wierzbicka 1967, 1972, 1980) I opted for solution A (despite strong opposition from my colleague Andrzej Boguslawski, who for a long time has argued for negation as a semantic primitive against my attempts to reduce it to a simpler notion of 'rejection'); but the language acquisition data suggesting that 'rejection' doesn't antedate 'non-existence'

and 'denial' have finally convinced me that solution B is more justified, after all.

What remains to be explained (on the assumption that NOT is always NOT) is why the semantic relation between the phrases "I don't want" and "I want" does not seem to be the same as that between "I don't know" and "I know", or "I don't do" and "I do", and why "I don't want to do X" often appears to imply that I positively want "not to do X". At present, I do not have a fully satisfactory answer to this question; but the possibility of an analysis in terms of invited inferences (perhaps along Gricean lines e.g. Grice 1975) is no doubt worth exploring.

13.2. CAN

CAN is a relatively recent addition to the list of primitives. From a cross-linguistic point of view, 'can' is particularly difficult to identify, partly because it is often involved in complex patterns of polysemy, and partly because its exponents often appear to be bound morphemes rather than distinct words. From the point of view of decomposition, there is also a temptation to try to treat 'can' as complex, because of its intuitively 'iffy' character (discussed, for example, by Austin 1961). Yet all attempts to define away 'can' (including my own) have proved unsatisfactory (for general discussion, references, and for my earlier analysis of 'can', see Wierzbicka 1987b). The conclusion that 'can' is semantically elementary, despite its apparent intuitive links with 'if', had a significant liberating effect on subsequent analyses across numerous semantic domains (as had the earlier conclusion that 'because' was semantically elementary, despite its intuitive links with 'if'; see Section 14). Because of the close links between CAN and the newly proposed primitive MAYBE, the two elements will be discussed jointly in Part B of this chapter.

13.3. VERY

The concept of VERY might be seen as dispensable in a universal system of semantic primitives, as it is inherently subjective and "imprecise". But evidence suggests that all natural languages have a word corresponding to the English word *very* and that despite (and perhaps because of) this subjectiveness and imprecision this concept is not dispensable at all.

The area where VERY seems most relevant is that of expressive evaluations. For example, expressions such as *wonderful*, *marvellous*, *terrific*, *awful*, and *horrible* seem to rely crucially on the combinations of the elements GOOD and BAD with VERY ('very good', 'very bad').

In earlier work (Wierzbicka 1972) I tried to define 'very' away via 'more', along the following lines:

This is very good (big). = this is more than good (big)

and later (Wierzbicka 1980) I tried to link this interpretation to a performative analysis, as follows:

This is very good (big). = I say: this is good (big)

I want to say more than this

This analysis was questioned at the time by Dwight Bolinger (personal letter), who argued that *very good* does not mean the same as *more than good*, and that the expanded version 'I want to say more than good' does not ensure the desired interpretation.

In children's speech (in English), *VERY* is often realized as *so*, for example (French and Nelson 1985: 119):

Yeah, sometimes if you're so hungry, go to a restaurant that gives ya a lot of stuff. ... and then we go to the next door parking lot and it is so cold there and everything.

Examples of this kind make it particularly clear that an analysis of 'very' via 'more' is intuitively untenable ("sometimes if you're more than hungry ..."). Since no other, more plausible, analyses of 'very' have been proposed, and since accumulated cross-linguistic evidence points strongly to the universality of this concept, it seems reasonable at this stage to accept it as a universal semantic primitive.

14. Interclausal Linkers: IF, BECAUSE, LIKE

14.1. IF

In logic, "conditionals" (*if*-sentences) are defined in terms of truth conditions: "if *p* then *q*" is taken to mean that either *p* and *q* are both true, or *p* and *q* are both false, or *p* is false and *q* is true. It has often been pointed out, however, that this definition does not correspond to the use of *if*-sentences in natural languages. As Comrie (1986: 80) notes, according to the logical definition "the only relation that need hold between protasis and apodosis is that expressed in the truth table, so that otherwise totally unrelated propositions may appear as protasis and apodosis, subject only to the condition that they have appropriate truth values, as in

If Paris is the capital of France, two is an even number."

According to Comrie, in natural language (in contrast to the artificial language of logic) sentences of this kind are anomalous because in natural language *if*-sentences require a causal connection between the two propositions in question. Comrie's own definition proposed for condition-

als "combines material implication with the relevance of a causal relation from the protasis to the apodosis" (1986: 96).

This amounts to an attempt to define *if*-sentences via a combination of concepts such as 'or', 'and', 'true', 'false' ('not true'), and 'because', along the following lines:

If it rains, I will stay at home. =

Either it will rain and because of this I will stay at home
or it will not rain and because of this I will not stay at home
or it will not rain and I will stay at home (despite this?).

This analysis may seem like an improvement on a purely truth-functional definition, but in my view, it is not tenable either, if only because it is not the case that 'if' always implies 'because'. It is true that 'if' implies some sort of connection between two propositions, and also that a causal link is often involved, too; I claim, however, that the 'if' connection is *sui generis*, and cannot be reduced to anything else; and that a link with 'because' is not always present. For example, the sentence

If he insults me, I will forgive him.

does not imply that I will forgive him *because* he has insulted me: it is true that I can forgive him only if he has done something bad to me (e.g. if he has insulted me), but it is not true that the insult will be the "cause" of my forgiveness. Similarly, the sentence

If he invites me to dinner I will not go

does not mean that I will not go *because* he has invited me: if he doesn't invite me I will not go either.

It hardly needs to be pointed out that a truth-functional analysis of *if*-sentences is highly counter-intuitive, as well as inadequate from the point of view of natural language (because of the lack of the requirement that the two clauses should be somehow connected). Since attempts to make it less inadequate by adding to it a causal component do not work, the conclusion suggests itself that—from the point of view of natural language—this analysis is simply irrelevant and should be abandoned altogether. Instead, we must conclude that the IF-relation is fundamental, irreducible to anything else; in other words, that it is a conceptual primitive.

It is worth noting in this connection that—contrary to what one might expect—the concept of IF appears relatively early in child language, although apparently later than BECAUSE. Here are some examples of *if*-sentences from the speech of American 4-year-olds (French and Nelson 1985: 114–15):

What do you do if you wanna make oatmeal cookies?

... well, you see, after, if you eat your food up, ya eat dessert.

(What do you do at a birthday party?)
you do a movie, and then if you have time, you play, and then you go.

(For a discussion of the universality of IF, see Chapter 6.)

14.2. BECAUSE

According to Kant, causation—with time and space—constitutes one of the basic categories of human cognition; it is not a category that we learn from experience but one of the categories which underlie our interpretation of experience.

Data from language acquisition, as well as from cross-cultural semantics, are consistent with Kant's view. The finding that apparently all languages have a lexical exponent of causation (whether it is a conjunction like *because*, a noun like *cause*, or an "ablative" suffix) is particularly significant in this regard. (For discussion, see Chapter 6; see also Wierzbicka 1994b.)

From the point of view of language acquisition, too, it is significant that despite the highly abstract and "non-empirical" character of the concept of causality, *because*-sentences appear quite early in children's speech. Here are a few characteristic examples from the speech of American 2-year-olds (Bloom 1991):

I was crying because I didn't want to wake up, because it was dark, so dark. (375)

(tiny blue barrel is inside other barrels)

You can't see it cause it's way inside. (384)

(going towards disks)

Get them cause I want it. (270)

(telling and demonstrating how she sleeps on the sofa)

Cause I was tired but now I'm not tired. (271)

(regarding TV, which is on)

I left it open because I wanna watch it. (339)

Bloom (1991) comments on the results of the study of causality in young children's speech as follows:

The concept of causality attributable to these children's thinking, from the evidence of what they talked about, emphasized the actions, feelings, and perceptions of persons in everyday causal events, or intentional causality. They discovered causal connections through their own and others' actions or heard them in everyday discourse about everyday events. Causality for them was neither the 'cement of the universe' that provides the structure of reality nor an innate quality of the mind that determines reality [as per the theories of Hume and Kant, respectively]. Rather, the construction of a theory of causality begins in infancy with the emergence of an understanding of the regularities in the relation between change and the actions of oneself and others that bring about change.

But while the results of studies such as Bloom (1991) do indeed appear to support the view of Searle (1983) and others that "we discover causality by experiencing it through our actions and perceptions" (Bloom 1991: 378), this is fully consistent with Kant's view that causality is an innate form of human perception of the world. It is also consistent with the view that causality (or, more precisely, the notion of BECAUSE) is a simple concept, rooted in our subjective experience of 'wanting' and 'doing', and not in any theoretical speculations about "might-have-beens", along the lines proposed in my *Semantic Primitives* (Wierzbicka 1972: 17):

X happened because Y happened. =
if Y hadn't happened X wouldn't have happened

As I have pointed out elsewhere (Wierzbicka 1989b: 321), while it may be true that "if Mary hadn't met John, she wouldn't have married him", it doesn't follow from that that "Mary married John because she had met him".

All the evidence leads, then, to the conclusion that BECAUSE is indeed a universal semantic primitive, an irreducible category of human language and cognition. (For a discussion of the universality of BECAUSE see Chapter 6.)

14.3. LIKE

The concept of LIKE can be illustrated with the following sentences:

I did it like this: . . .

I am not like these people.

I think of people like you.

The importance of the concept LIKE in the human conceptualization of the world was justly emphasized by J. L. Austin in his *Sense and Sensibilia* (1962b: 74), where he wrote:

Like is the great adjuster-word, or alternatively put, the main flexibility-device, by whose aid, in spite of the limited scope of our vocabulary, we can always avoid being left completely speechless.

Commenting on Austin's words, Tamar Sovran (1992: 342) writes:

The concepts of similarity and its operators seem to have the same function in language and in thought, in the process of acquiring new concepts, and in the process of scientific growth. They help us to leave the safe ground of known, labeled, categorized terms, and to expand our knowledge and language to newly discovered areas.

I agree entirely with the spirit of these remarks (both Austin's and Sovran's). As for the phrasing, however, I would insist that it is Austin's

'like' rather than Sovran's 'similarity' which is the great "adjuster-word" and the main "flexibility-device" in English, and which can be matched with other such words and devices in other languages. For example, a medieval Latin hymn ("Regina coeli laetare") includes the following line:

Resurrexit sicut dixit.

'He has risen as he said.' ('He has risen like he said he would'.)

I imagine that the word *sicut* represents here the universal semantic primitive LIKE, and yet it could hardly be said to indicate 'similarity', either in the logical or, for that matter, colloquial sense of the word.

Furthermore, I would claim that among "similarity operators" listed by Sovran ("like", 'the same', 'as', and others'), one—"the same"—is not an exponent of the same concept 'like' at all, but an irreducible conceptual primitive in its own right. LIKE does have a number of exponents (allolexes) in English, as it does in other languages, and *as* (in some of its uses) is indeed a good example, but *the same* is not. In natural language, it is essential for people to be able to make distinctions such as the following one:

This fish is like that other fish, but it is not the same fish

and cross-linguistic evidence suggests that in all languages people have lexical resources for making such distinctions. (See Goddard and Wierzbicka 1994b.)

The addition of 'like' to the list of primitives (proposed in Goddard 1989a) has simplified semantic analysis of numerous aspects of language. In particular, it has allowed explications couched in semantic primitives to account, in a simple and natural way, for the role of prototypes in human language and cognition. In my work, I have tried to use the notion of prototype from the start, and, for example, my 1972 analyses of emotion concepts or 1980 analyses of kinship and colour concepts were based on this notion (see e.g. McCawley's (1983: 656) comment: "Wierzbicka makes extensive use of prototype analyses"). But my early lists of primitives were lacking an element which would allow me to phrase these analyses in a simple and natural way. The addition of 'like' to the list changed this. As pointed out by Goddard, 'like' was "a semantically primitive hedge, built into NSM [Natural Semantic Metalanguage], with obvious benefits in terms of reducing the length of *Lingua mentalis* style explications, which lean heavily on expressions such as 'can be thought of as' and 'in the same way as'" (1989a: 53). Thus, the addition of 'like' facilitated a radical simplification of the syntax of the explications, as well as making the semantic account of prototypes, hedges, metaphors, and vagueness more accurate and intuitively satisfying.

B. NEW PRIMITIVES

15. Introduction

In the last two years, the system of semantic primitives has been radically expanded, from 37 to as many as 55. Despite this rapid expansion, the new primitives offered here for the reader's consideration have not been proposed lightly. Indirectly, they are the product of many years' thinking, searching, and experimenting. More directly, they have been born out of careful reconsideration of the whole system and lengthy discussions, particularly those with my co-editor Cliff Goddard, following our collective work on the volume testing the earlier, more restricted set of primitives (Goddard and Wierzbicka 1994b).⁵

As mentioned earlier, the new primitives haven't yet been extensively tested, and cross-linguistic evidence is vital for deciding their future fate. Their present status must be regarded as quite different from that of the old primitives, which have already been subjected to extensive cross-linguistic testing.

The order of presentation of the "new primitives" will follow, roughly, that of the old primitives (except, of course, for the areas to which nothing has been added). Thus, I will start with determiners and quantifiers, following on with mental predicates and with a section on movement, existence, and life, which can be seen as roughly corresponding to Section 7, "Actions and Events", in Part A. This will be followed by sections on space and time (this time, first space, then time), and by a section entitled "Imagination and Possibility", which corresponds to the final section of Part A, "Interclausal Linkers". Finally, the most recent and the most tentative of all, the concept of WORD will be briefly discussed—the least solid (at this stage) of all the proposed primitives. The chapter will close with a general discussion and a brief conclusion.

The new primitives tentatively posited in this part include the following:

"Determiner"	SOME
"Augmentor"	MORE

⁵ The whole new set has been extensively discussed with Cliff Goddard, and has undergone a number of revisions, following his suggestions. A large part of the new set has also been discussed with Jean Harkins, and my understanding of some aspects of the new system has greatly profited from these discussions. Apart from Jean, I am also indebted to a number of other colleagues in Canberra, in particular, Tim Curnow, Bob Dixon, Nick Enfield, David Nash, Helen O'Loughlin, and Tim Shopen. I am also deeply indebted to my colleague Andrzej Boguslawski in Warsaw, despite the distance, an unfailing critic, debater, and co-thinker. Last but not least I would like to acknowledge my indebtedness to my daughter Clare, who discussed most of the new primitives with me and who offered many helpful criticisms and suggestions.

"Mental predicates" SEE, HEAR
 "Non-mental predicates" MOVE, THERE IS, (BE) ALIVE
 "Space" FAR, NEAR; SIDE; INSIDE; HERE
 "Time" A LONG TIME, A SHORT TIME; NOW
 "Imagination and possibility" IF ... WOULD, MAYBE
 "Words" WORD

16. Determiners and Quantifiers: SOME and MORE

16.1. Determiner: SOME

The English word *some* is polysemous. The sense posited here as primitive is that of "indeterminate number", as illustrated in the following passage from a text in the Australian language Guugu-Yimidhirr (Haviland 1979: 163; Haviland's numbers):

- (32) Dhana gada-y waguur-nganh,
 3sg + NOM come-PAST outside-ABL
 They came from the outside [i.e. from inland];
- (33) gurra buuraay-nganh dhalun-nganh galmba gada-y,
 and water-ABL see-ABL also come-PAST
 and they also came from the water, from the sea;
- (34) mundal bubu-wi badi = badiimbarr gada-y,
 some + ABS ground-LOC under = underneath come-PAST
 some came underneath the [surface of] the earth;
- (35) mundal wangaar = nggarr bubu-wi gada-y,
 some + ABS above = REDUP ground-LOC come-PAST
 others came above the ground;
- (36) mundal birri wangaar gada-y.
 some + ABS river- above come-PAST
 and others came up the rivers.

The primitive proposed here is realized in Guugu-Yimidhirr as *mundal*. As Haviland's glosses show, in English this sense can sometimes be rendered as *some*, and sometimes as *others*. It is important to stress, however, that it is a concept which functions as a quantifier, situated somewhere between ONE and ALL.

The quantifier *SOME* was proposed as a universal semantic primitive by Boguslawski (1965: 58), alongside two other quantifiers: ONE and ALL. I confess that it took me more than twenty years to come to believe in ONE and ALL (which were also independently posited by Goddard at the Adelaide Workshop in 1986); and it has taken me close to another decade to come to believe in *SOME*. But looking at sentences such as those in the Guugu-Yimidhirr passage (which, as Jean Harkins, personal communication, points out, are very common in Aboriginal stories), one has to recog-

nize that they couldn't be fully explicated with a set of primitives which didn't include *SOME*.

In works on languages and logic, the English word *some* is frequently linked with the so-called "existential quantifier". For example, McCawley (1981: 101-2) writes:

The so-called universal quantifier corresponds to several different English words: *all*, *every*, *any*, *each*; the existential quantifier corresponds to certain uses of the words *some* and *an*. . . The existential quantifier, henceforth represented by the symbol $\exists$, is also the common element in a number of things that natural languages often distinguish, for example, various uses of *an* and *some* in English.

McCawley goes on to point out that the English language distinguishes obligatorily between singular and plural, but that the logical concept of existential quantifier is indifferent to this distinction:

The formula $(\exists x)(\text{admire } x \text{ Hitler})$ is supposed to be true if at least one man admires Hitler and false if no man admires Hitler. It is non-committal on whether exactly one man or more than one admires Hitler. However, English sentences must draw the distinction between one and more than one:

- (a) Some man admires Hitler.
 (b) Some men admire Hitler.

But the concept *SOME* proposed here as a semantic primitive corresponds only to sentence (b) above, not to sentence (a). What is meant could perhaps be better expressed as *SOME OF*, as in the following sentences:

- Some of them admire Hitler.
 Some of them turned right, and some (of them) turned left.

In Polish, the word *część* 'part' can sometimes be used as an exponent of this notion, for example:

- Część z nich poszła na prawo, a część na lewo.*
 Part of them turned right, and part turned left.

Similarly, in many other European languages the exponent of the primitive *PART* can be used as a quantifier, to express the primitive *SOME*. Curiously, as Cliff Goddard (personal communication) notes, the same is true of the Australian language Yankunytjatjara. But in many other languages there is no lexical overlap between *SOME* and *PART*. (Moreover, even in English sentences *SOME* cannot always be paraphrased in terms of the word *part*. For example, *sometimes* (*at some times*) cannot be defined as 'part of the time'.)

It is important to note that while in works on language and logic *some* may be regarded as an equivalent of the verb *exist* (or the expression *there is*), from a semantic point of view *SOME* and *THERE IS* are two different notions, which cannot be reduced to one (see Section 16.2 below). For

example, it seems clear that the Guugu-Yimidhirr passage adduced at the outset cannot be paraphrased in terms of *exist* or *there is*. One could of course say (in English), "There were people among them who went under the ground; there were people among them who went above the ground"; but a paraphrase of this kind relies on a relative clause—a structure which is not universally available (as well as on the expression "among them", which looks suspiciously like another way of saying "some").

Similarly, it is true that a sentence such as "Some people admire Hitler" does seem to be paraphrasable (in English) as "There are people who admire Hitler". But if we try to define away the complex and language-specific relativizer "who", on which this paraphrase depends, we have to fall back on *some* ("Some people admire Hitler"):

Some people admire Hitler. ≠
there are people
these people admire Hitler

Finally, it might be suggested that *some* (in the relevant sense) can be defined away as "not all", along the lines of "Some people admire Hitler = Not all people admire Hitler". But a paraphrase of this kind is not valid, since "not all"—in contrast to *some*—implies something like "most".

16.2. Augmentor: MORE

The element MORE, included in one of his tentative lists of indefinables by Leibniz, appears on the list of semantic primitives not for the first time. I tentatively included it in one of the 1989 lists (Wierzbicka 1989b: 105), only to replace it later with the element MUCH (MANY), proposed at the time and convincingly argued for by Goddard. To have both MUCH (MANY) and MORE on the list seemed intolerably uneconomical, given the close semantic links between the two concepts, and so it seemed imperative to try to define 'much' via 'more' or the other way round.

Given the intuitive closeness of the two concepts it is certainly worth trying to reduce them to one. In my judgement, however, none of the attempts undertaken in the past were really convincing.

If we want to try to define 'much' via 'more' the obvious way to go is to refer to some expectations, along the following lines:

much (many) = more than one could/would expect

But this approach, reasonable as it may seem at first, is not always convincing. For example, in the sentence

Many people came (e.g. to see the Pope), but not as many as expected.
the word *many* can hardly mean 'more than expected'.

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In the Moscow semantic tradition, the key word used in this and many other similar contexts was "norm" (see e.g. Żolkovskij 1964b):

much (many) = more than the norm

But the word *norm* doesn't always make sense in sentences with *much* or *many*. For example, the sentence

Many people are afraid of lightning.

could hardly be paraphrased in terms of the phrase "more than the norm". Of course it could be argued that what was meant was not the ordinary Russian word *norma* ('norm') but an artificial word with a different meaning, but it is not clear what exactly such a statement would mean or how it could be verified.

On the other hand, if we try to define 'more' via 'much/many' we run into other difficulties. At first sight, the approach which appears to work with other comparatives seems to work here as well (see Section 9 above):⁶

A is bigger than *B*, =
if someone thinks of these two things at the same time
this person can think: "*A* is big, *B* is not big"

But there are many situations when a paraphrase of this kind would not work for "more". For example, if I say that I want more to eat, a paraphrase along the lines proposed above doesn't seem to make sense. Similarly, the sentences:

I want to say more.
I want to see more.
I want to know more about this.

can hardly be paraphrased in the "these two things" format.

It is not a comparative 'more', then (a converse of 'less'), which I am positing here as a universal semantic primitive, but, so to speak, an "augmentative" one, illustrated in canonical sentences such as

I want more.
Give me more.
I want to see/know/hear more.

⁶ An analysis along these lines, which was proposed by Cliff Goddard (personal communication), is simpler, and, I think, better, than the following one, which I proposed in Wierzbicka (1971):

A is bigger than *B*, =
if people can say about *B* "it is big"
they can say the same about *A*
I can't say:
"if people can say this about *A*
they can say the same about *B*"

When the presence of lexical exponents of MORE is cross-linguistically tested, it is probably worth including questions about 'less' as well. At this stage, however, 'less' seems to be a much less likely candidate for a lexical universal than MORE. I would expect that many languages will be found which have a word for MORE (in an augmentative sense) but not for 'less'.

The study of language acquisition strengthens this expectation (based on internal semantic grounds), since first, children start using the word *more*, in contrast to *less*, very early (see e.g. Braine 1976), and second, those early uses of *more* are augmentative, not relative. As, for example, Johnston (1985: 974) put it: "although we think of *more* as expressing judgments of relative quantity/extent, the child's *more* is at first non-quantitative and non-comparative". As shown by Braine, a combination of *more* and a word designating an object of desire (e.g. "more juice!") is in fact among the most common early two-word utterances in child language (Braine 1976; McShane 1991), whereas *less* does not appear on the list of the early two-word patterns at all. Bowerman (1976: 128) notes that her daughters Christy and Eva initially used the word *more* "in connection with a restricted set of objects at first—food and drink" and that "Bloom's (1973) daughter Allison likewise first produced ... 'more' as a request for an additional serving of food or drink, although within only a few days she began to use these words across a range of more varied contexts."

Reflecting on the apparent asymmetry between the concepts 'more' and 'less' one is tempted to think that perhaps there is indeed some special psychological link between the concepts MORE and WANT. As we know them, human beings are perhaps more inclined to think, and to say:

I want (to have, to eat, to drink) more.
I want to see more.
I want to know more.
I want to say more.

than to use the corresponding sentences with 'less'. It is also worth noting that VERY—another quasi-quantitative concept—has no universal opposite either.

Finally, I would like to suggest that the augmentative element MORE plays a crucial role in our understanding of numbers. For what is "three" if not "one more than two"?

17. Mental Predicates: SEE and HEAR

See baby/See pretty/See train.

(from a 2-year-old's first word-combination list; Braine 1976: 70)

The concepts 'see' and 'hear' play a fundamental role in human communication.

As pointed out by Bowerman (1976: 138), in transcriptions of two-word child utterances from diverse languages one frequently finds sentences such as "this (that) doggie", "here (there) ball", or "see man". Generally speaking, the word *see* (alongside *this*, *that*, *here*, and *there*) appears to be one of the basic communicative tools in early interaction between children and adults. At that stage, the word *hear* doesn't seem to be nearly as important as *see*, but apparently, before long, it too begins to play a special role, alongside *look*, *listen*, and *watch* (see e.g. Bloom *et al.* 1975).

The concepts 'look', 'listen', and 'watch' are complex, and involve 'wanting' as well as 'seeing' or 'hearing' ('wanting to see' and 'wanting to hear'); but 'see' and 'hear' themselves cannot be similarly decomposed into simpler concepts.⁷

Admittedly, in earlier work (see Wierzbicka 1980) I have argued that SEE and HEAR (as well as 'smell' and 'taste') can be defined via the corresponding body parts: eyes and ears, nose and mouth. To see and to hear, I claimed, means to know something about something because of one's eyes or one's ears.

But there are problems with this account. First of all, it presents the notions of 'see' and 'hear' as very complex, and this is hard to accept in view of the role these elements play in many areas of lexicon and grammar of many languages (such as, in particular, "evidentials"; see Chapter 15).

Second, if we define 'see' and 'hear' via 'eyes' and 'ears', we cannot define 'eyes' and 'ears' via 'see' and 'hear', and we have to adopt purely anatomical definitions, along the following lines:

eyes — two parts of the face in the upper part of the face
ears — two parts of the head, on both sides of the head

But although in the past I tried to justify such definitions myself (Wierzbicka 1980), my readers and listeners always found them unsatisfactory, because they felt that 'seeing' and 'hearing' was an integral part of their meaning. I would now propose, then, defining 'eyes' via SEE, and 'ears' via HEAR, as follows:

eyes — two parts of the face
these parts are alike
because of these two parts a person can see

⁷ At a Linguistic Forum held at the ANU in 1989, Bob Dixon said that if he were to propose his own list of universal semantic primitives, he would include in it "see" and "hear". I have now reached the same conclusion.

ears — two parts of a person's head these parts are alike

because of these two parts, a person can hear

Third, while 'see' and 'hear' may seem to be notions derived from sensory experience, and therefore unlikely to be either universal or innate (because experience is variable), in fact they do not have to be viewed in that way. A person born blind may still "see" something (images or colours) in his or her mind, and may therefore have an innate notion of 'seeing'. Similarly, people deaf from birth may still "hear" something in their heads. It is interesting to note, for example, frequent references to 'hearing' (sometimes with, and sometimes without inverted commas) in the autobiography of a man who describes himself as totally deaf (Wright 1993: 10–11):

I do not live in a world of complete silence. There is no such thing as absolute deafness. Coming from one whose aural nerve is extinct, this statement may be taken as authoritative. ... If I stand on a wooden floor I can 'hear' footsteps behind me, but not when standing on a floor made of some less resonant substance—for example stone or concrete. I can even partially 'hear' my own voice. This is not surprising, for people hear themselves talk mainly by bone-conduction inside their heads. ... Likewise, I 'hear' a piano if I place a finger on it while it is being played. ... I cannot hear wind-instruments (flute, bagpipes, oboe). ... I have a passion for military bands, though hearing little except the drumtaps, a sad boom-thud from the big drum and a clattering exhilaration from the kettledrums.

Whether or not all languages have separate words for SEE and HEAR is not always self-evident, because in a number of languages both SEE and HEAR share their lexical exponents with other concepts, notably with KNOW and THINK. But (as argued in Chapter 6), lexical overlaps of this kind can be shown to be due to polysemy. Apart from such common patterns of polysemy, to my knowledge no language without words for SEE and HEAR has ever been reported.⁸

The common polysemic patterns involving SEE or HEAR on the one hand and KNOW on the other are of course not accidental. They point to conceptual links, but I would argue that these links are not compositional.

⁸ A particularly interesting case of polysemy involving SEE and HEAR has been reported by Sasha Aikhenvald (personal communication). In the Tariana language (from the Arawak family, spoken in Brazil), the same verb is used for both SEE and HEAR, but in the HEAR sense it requires an object which implies an "auditory" object ('words', 'sounds', 'language', etc.) In this language, the sentence of the form 'I Verb(see/hear) a bird' can mean either 'I see a bird' or 'I hear a bird'. But it is also possible to say, using the same verb, the equivalent of 'I hear a bird but I don't see it' or 'I see a bird but I don't hear it'. To do this, one would use sentences of the following form: 'I Verb(see/hear) the voice of a bird, but I don't Verb(see/hear) it', or 'I Verb(see/hear) a bird but I don't Verb(see/hear) its voice'. In my view this fact shows that the verb in question is polysemous (unlike, for example, the English verb *perceive*).

Definitions linking seeing and hearing with knowledge, along the lines of:

to see — to know something about something because of one's eyes
to hear — to know something about something because of one's ears

may seem plausible because they are consistent with a wide range of contexts where these words occur, but they cannot be said to capture their semantic invariant.

For example, when one sees a mirage in the desert this could hardly be interpreted in terms of gaining knowledge about something. Of course all auditive and visual experiences (including ringing in one's ears and seeing colourful dreams) can lead, indirectly, to some knowledge (e.g. about one's health, or about one's unconscious desires), but this is not what sentences about such experiences mean. Furthermore, an analysis of a 2-year-old's utterance "see pretty" as 'I want you/someone to know because of your eyes that there is something pretty here' is hardly convincing: apart from its precocious complexity, the baby wants someone to 'see', not to 'know'.

It is important to add that the approach to SEE and HEAR proposed here does not extend to the other senses. The supposed symmetry between the human "five senses" is spurious, and from a universal perspective there is no such thing as the human "five senses". Beyond "seeing" and "hearing", different languages draw their distinctions in different ways. As Classen (1993: 1–2) points out, "In the West we are accustomed to thinking of perception as a physical rather than cultural act. The five senses simply gather data about the world. Yet even our time-honoured notion of there being five senses is itself a cultural construction. Some cultures recognize more senses, and other cultures fewer."

Admittedly, Classen goes on to say that "the Hausa of Nigeria divide the senses into two, with one term for sight and one for all the other senses". This doesn't mean, however, that the Hausa word which stands for 'hear' as well as all the other senses except 'see' is not polysemous. Polysemic patterns of this kind are common. For example, in Russian the word *slýšat'* can stand both for 'hear' and 'smell' (see the Academy dictionary of Russian: Akademiya Nauk SSSR 1961, iv. 204). What matters, however, is not the term as such, but the term combined with a particular grammatical frame.

The hypothesis that SEE is a universal semantic primitive is consistent with the view widespread across cultures that there is a special relationship between seeing and knowing, and that eyewitness evidence is more reliable than any other kind of evidence, and the hypothesized status of HEAR as a universal semantic primitive tallies well with the special role of vocal speech in human communication: while SAY applies to both vocal and other signs, audible messages play a more important role in human

societies than other kinds of messages; and spoken languages are not on a par with other semiotic systems.

The fact that of all the senses only SEE and HEAR are grammaticalized in the category of "evidentials" (see Chapter 15) is another reflection of their special status in human cognition, as is also the fact that "visibility" is often encoded in the systems of demonstratives.

One way to characterize this difference between the concepts 'see' and 'hear' on the one hand, and 'smell', 'taste', and 'touch' on the other, is to say that 'see' and 'hear' are, essentially, mental predicates, referring to events and processes which do not rely crucially on the body, whereas 'smell', 'taste', and 'touch' are, essentially, "sensory" predicates, referring to experiences which do rely, crucially, on the body. This difference is reflected in the fact that it is perfectly natural to attribute 'seeing' and 'hearing'—but not smelling, tasting, or touching—to God. For example, it is perfectly natural to say that God hears our prayers, or that he sees our hearts and indeed our actions; but it would sound ludicrous to say that he "smells" something.

Thus, we can conceive of 'seeing' and 'hearing' in a more abstract, less physical way than we can conceive of 'smelling' (or 'tasting' or 'touching'). This is consistent with the hypothesis that 'see' and 'hear', in contrast to 'smell', 'taste', or 'touch', are conceptual primitives.

18. Movement, Existence, Life: MOVE, THERE IS, LIVE

18.1. MOVE

The idea of 'movement' or 'motion' was put forward as indefinable by John Locke, who mocked attempts to reduce it to other concepts:

Nor have the modern philosophers, who have endeavoured to throw off the jargon of the schools, and speak intelligibly, much better succeeded in defining simple ideas, whether by explaining their causes, or any otherwise. The atomists, who define motion to be 'a passage from one place to another,' what do they do more than put one synonymous word for another? For what is *passage* other than *motion*? And if they were asked what passage was, how would they better define it than by motion? For is it not at least as proper and significant to say, Passage is a motion from one place to another, as to say, Motion is a passage, &c.? This is to translate, and not to define, when we change two words of the same signification one for another; which, when one is better understood than the other, may serve to discover what idea the unknown stands for; but is very far from a definition, unless we will say every English word in the dictionary is the definition of the Latin word it answers, and that motion is a definition of *motus*. (Locke 1690/1959: 35)

In *Lingua Mentalis* (Wierzbicka 1980: 5), I rejected Locke's claim and argued (following Leibniz 1765/1981: 297) that 'movement' was semanti-

cally related to 'change of place', and therefore could not be regarded as elementary. If, however, we allow elementary concepts to be mutually related (in non-compositional ways), then my argument can no longer be regarded as valid: if both 'I' and 'someone' ('person') can be regarded as elementary, despite being intuitively related, so can 'movement' and 'place'.

Furthermore, the notion MOVE, which I am now positing as a semantic primitive, is not necessarily linked with a passage of some object or person from one place to another. The prototypical examples of MOVE in the intended sense can be found in sentences such as the following ones:

I see something is moving (in this place).
I can't move.

Something moved inside me.

In sentences of this kind, the idea of 'change of place' is not necessarily relevant at all (even if it is true that whenever something moves, something changes place, if only momentarily). Similarly, if we wanted to say that someone shivered, or that someone's lips trembled, it would seem rather ludicrous to try to paraphrase such sentences in terms of a repeated change of place. On the other hand, concepts such as 'go' or 'walk' do imply a change of place, but they also imply movement, and their explications would have to include both PLACE (WHERE) and MOVE.

18.2. THERE IS

Cartesians regarded it as self-evident that 'existence' (in French *l'existence*) was among those ideas which are so clear that no definitions could make them any clearer. For many years, I have rejected this view, in the belief that 'existence' could be defined in terms of, so to speak, "possible reference", that is, along the following lines (see Wierzbicka 1972, 1980):

There are no unicorns (ghosts, black swans). =
one can't say about something: "this is a unicorn (ghost, black swan)"

Paraphrases of this kind never seemed to me quite right, but I believed that with time they could be amended in some minor way and thus be rendered quite credible.

But after more than two decades of trying, and failing, to find the necessary "minor amendments", I now believe that the time has come to give up any attempts to define 'existence' away and to recognize that the Cartesians were right on this point as well (see e.g. Arnauld 1662/1964: 66).

Perhaps the only qualification which I would make is that both the noun *existence* (French *existence*) and the verb *to exist* (French *exister*) belong to philosophical, not everyday, vocabulary, and that it is more justified to nominate the expression *there is/are* (in French *il y a*) as the basic lexical

exponent of the primitive in question. The point is not trivial, because the difference is not merely stylistic. Apart from stylistic differences, in some contexts, *exist* and *there is/are* may seem to be interchangeable, but in others they are not:

- (1) There are no unicorns. ≈
Unicorns don't exist.
- (2) There are no cockroaches here. ≠
?Cockroaches don't exist here.

As sentence 2 illustrates, the verb *exist* does not co-occur with a place phrase. It is a verb used to make absolute statements, statements about the world as a whole, or about whole classes of entities rather than about individuals or groups. By contrast, the concept THERE IS (ARE) can apply both to the world as a whole and to specific individuals in specific places.

- (3) There are no ghosts (ghosts don't exist).
- (4) There are no ghosts in this place
(?ghosts don't exist in this place).

In accepting THERE IS/ARE as a semantic primitive, and in choosing the English expression *there is/are* (rather than *be* or *exist*) as its primary exponent in English, I am following an idea put forward by Cliff Goddard at the Adelaide Workshop in 1986 (Goddard 1986a). The primitive proposed here corresponds to what Goddard called a "presentative/existential construction".

If the proposed primitive ALL approximates logicians' "universal quantifier", the proposed primitive THERE IS/ARE approximates logicians' "existential quantifier". As we will discuss in detail in Chapter 6, doubts have sometimes been expressed as to the availability of these two concepts in all the languages of the world. While I will leave discussion of the concept ALL for Chapter 6, I would like to suggest here that all languages do in fact have a lexical counterpart of the English *there is/are*. This lexical counterpart may of course be homophonous with the exponents of some other meaning or meanings, but if so, then we can confidently expect some basis for establishing polysemy (such as different grammatical properties linked with the different meanings). For example, in Polish (as in many other languages; see Verhaar, 1966-73) the concept THERE IS/(ARE) is expressed by means of the same verb which (in a different grammatical construction) serves also as a copula.

The hypothesis that all languages have a lexical exponent of the concept THERE IS should not be misconstrued as a claim that every language has an existential verb, or a verb phrase comparable to the English phrase *there is*. For example, in the Austronesian language Tolai (Mosel 1984: 157)

'existence' is expressed by means of the definite article (in a verbless sentence), as in the following examples (C stands for connective particle):

- A kilala-na-mulumulum.
ART season-C-hunger
'There was famine.'
- Pata taina, a tava parika.
no salt ART water all
'There was no salt, only water.'
- Ma amana a vaden parika.
and formerly ART women all
'In former times only women (existed).'

But the fact that in other types of sentence the element *a* means, roughly speaking, 'the' (that is, 'I think you know which one I am talking about') does not invalidate the observation that in verbless sentences of the kind cited above it means 'there is'. Nor does the grammatical status of the element *a* (as a constituent of the noun phrase) disqualify it as a lexical exponent of the primitive THERE IS: there is no reason to expect that this conceptual element should always be lexically encoded as a verb or a verb phrase.

Data from language acquisition are highly relevant in this regard. Far from being a late development, 'existence' (in the sense postulated here as primitive) is in fact one of the first concepts emerging in infants' speech. The clearest early realization of this concept comes in the form of one-word utterances combining 'existence' with negation, such as 'allgone', and, at a later stage, with two-word combinations such as "milk allgone" (Bowerman 1976: 139). From an adult point of view, it might seem that utterances such as "allgone" are even more complex, and that they express 'disappearance' or 'cessation' rather than simply 'there isn't' (Bowerman 1976: 128), but these ('disappearance' and 'cessation') could, arguably, be ideas implicit in the situation as interpreted by the adult. But the meaning of 'non-existence' (i.e. 'there isn't') is clearly there. In any case, whatever the meaning of *allgone* in infancy, contextualized sentences such as "no pocket" (said by Kathryn not finding a pocket in Mommy's shirt, which had no pocket; Bloom 1991: 163) leave little room for doubt.

This clear early emergence of 'non-existence' sentences in child language matches, in an interesting way, clear marking of 'negative existence' in those languages which don't have a verb, or a verbal phrase, for 'there is' as such (such as Tolai; cf. the "no salt" example cited earlier).

I am not suggesting that 'non-existence' ('there isn't') is expressed in child language earlier than 'existence' ('there is'), but only that it is expressed at a very early stage more clearly (because it is not open to

different interpretations). In the speech of 2-year-olds, 'existence' ('there is') can also be expressed with perfect clarity, as in the sentence of the 26-month-old Julie Bates (Bates *et al.* 1988: 252):

There's a cleaning lady there.

At an earlier stage, 'there is' is frequently expressed in infants' speech by means of a two-word combination, with the words *there* or *here* in the initial position; for example: "there book", "there rhino", "there hammer", "here boat" (Braine 1976: 38). Commenting on utterances of this kind included in his corpus, Braine notes: "All cases are consistent with the hypothesis that the pattern 'here/there + X' was used to show or to draw attention to things, indicating their presence or existence".

Thus, far from being the philosopher's brain-child, 'existence' (that is, 'there is') is in fact something that "comes out of the mouths of babes and sucklings".

18.3. LIVE (ALIVE)

ADULT. Do you think the fire would listen?
CHILD. No. Fires aren't alive, silly.

(Kuczaj and Daly 1979: 575)

After many attempts, undertaken over the years, to define the concepts of 'life' or 'live' in simpler terms, I have come to the conclusion that all such attempts are probably futile, and that when medieval philosophers defined an animal as "vivens sentiens" ('a living thing, a feeling thing') they knew what they were doing: one cannot define (in simpler terms) the concept of 'living', as one cannot define the concept of 'feeling'.⁹ On the other hand, if we accept that 'life' is a simple, irreducible concept, many other concepts can be defined in terms of it.

To begin with, there are concepts relating to human age, such as 'old', 'young', or 'child':

These people are old. = These people have lived for a long time.

In English, the word *live* takes also adjuncts which describe places and conditions of life; for example:

These people live in the desert.

When I was young, I lived alone.

For many years, I lived in poverty (in constant pain).

It appears, however, that this is not universal. On the other hand, the combination of 'live' with temporal modifiers, as in the sentence

Turtles live for a long time.

appears to be universal.

Second, there are concepts relating to death, such as 'die', 'kill', 'murder', 'agony', 'resurrection', 'immortality', 'reincarnation', 'corpse', 'stillborn', and so on; all referring in their meaning to 'living'. For example:

At this time he died. = at this time something happened to him
before this, he lived (was alive)
after this, he didn't live (wasn't alive)

Third, there are concepts related to the human categorization of the "contents of the world": if all languages distinguish (as far as we know) **SOMEONE** from **SOMETHING**, and if they all single out a special category of **PEOPLE**, most languages distinguish also, in one way or another, living things from non-living things. For example, for English, we could propose the following definitions:

creatures ("animals", in the all-inclusive sense) — living things
these things can feel something

these things can do something

plants

— living things
these things can't feel anything
these things can't do anything

machines

— things, not living things
people make these things¹⁰
these things have many parts
when people do something to these things, some of these parts can move

⁹ Recall also McCawley's (1973: 157) definition "to kill = to cause to become not alive". In *Lingua Mentalis* (1980: 168-9) I argued, contra McCawley, that 'dead' is semantically simpler than 'alive', but I now think that he was closer to the truth, on this point, than I.

¹⁰ In the present system of primitives, "make" is not regarded as a primitive, and so it is used here as a semantic molecule. The relationship between "make" and DO requires further investigation.

because of this, people
can do something with
these things

robots

— things, not living things
these things are like
people
these things can do
many things
these things can do
things as if they could
think
these things can't feel
anything

Fourth, there is the mystery of people who are in a coma, on respirators or other artificial life-support systems, and so on. These people don't move, don't do anything, and, as far as we know, don't think, don't feel, don't know, and don't want anything; and yet there are considered "alive". Clearly, from lay people's point of view there is a mystery here: they couldn't explain what they mean by "alive" in such cases, and yet they feel that they somehow know what they mean. In fact, from a scientific point of view, too, a mystery is involved here, a mystery which has exercised the minds of many scientists over centuries. The constantly changing medical criteria of life and death point in the same direction.

Last but not least, in many cultures people talk a great deal about life—the lives of individual people, and human life in general. Life—human life—is one of the main subjects of folk philosophy in a wide variety of cultures. It is difficult to see how this important area of human discourse could be understood if we didn't all have a basic concept of 'living'. To quote just one example of such discourse (from Ecclesiastes 9: 3–5):

3. This is an evil among all things that are done under the sun, that there is one event unto all: yea, also the heart of the sons of men is full of evil, and madness is in their heart while they live, and after that they go to the dead.
4. For to him that is joined to all the living there is hope: for a living dog is better than a dead lion.
5. For the living know that they shall die: but the dead know not any thing, neither have they any more a reward; for the memory of them is forgotten.

The whole range of the universal concept LIVE (ALIVE) as envisaged here can be illustrated with the examples adduced in the recent dictionary of the Australian language Arrernte (Henderson and Dobson 1994), where the word *itethe* is glossed as "1. alive, living" and "2. life". I will only quote the English glosses of the Arrernte sentences:

1. The march fly is a big fly that sucks blood from people and from some other living things.
2. The rainbow snake swallows men, women or children alive.
3. A green tree is one that is still alive.
4. The life of a butterfly (a book title).
5. This is the story of my life.
6. That old man's heart stopped. Those women are thumping (his chest) to bring him back to life.

19. Space: FAR and NEAR, SIDE, INSIDE, HERE

19.1. FAR and NEAR

How could one try to define away the concept of NEAR?

The first temptation would probably be to try to reduce NEAR to FAR, along the lines of "near (close) = not far". But this won't do—if only because NEAR can combine with VERY, whereas "not far" cannot: (very near, very close, *very not far). (One can say, of course, "not very far", but this doesn't mean the same as "very close".)¹¹

Another temptation would be to try to represent both NEAR and FAR in terms of a hypothetical primitive "distance" (near = small distance, far = great distance). But "distance" (in an abstract sense, covering both FAR and NEAR) is not a universal concept. We cannot be sure, without serious investigation, whether or not all languages have words for FAR and NEAR; we can be quite sure, however, that we will not find in all languages a word corresponding to *distance*. In fact, even in English *distance* is a fairly technical, learned word, which is not found in the everyday speech of all speakers of English. From the point of view of everyday language, *distance* is an artificial creation, forged (so to speak) on purpose to cover two simple everyday concepts: FAR and NEAR.

Furthermore, the word *distance* is probably chiefly necessary for talking about numbers and measures. But the words *far* and *near* (or *close*) are not concerned, primarily, with numbers and measures. They are fairly vague words, conveying an impression, not an accurate assessment. Consider, for example, the following words from a Christmas carol (Horrobin and Leavers 1990: 47):

¹¹ In some languages, the word for NEAR may look like a combination of negation and the word for FAR (just as the word for BAD may look like a combination of negation and the word for GOOD). It is always possible, however, that combinability tests will show that such a hypothetical 'not-far' word will mean NEAR, rather than NOT + FAR (just as a 'not-good' word may mean BAD rather than NOT + GOOD).

Be near me, Lord Jesus;
I ask You to stay
Close by me for ever
And love me, I pray.

It seems unlikely that anyone would want to paraphrase phrases like "be near me" and "close by me" via "small distance".

A related point is that both FAR and NEAR appear to embody a certain point of view: normally, "it is far from this place to that other place" rather than "between two places"; by contrast, the word *distance* implies that the speaker is not mentally associated with one place more than with the other, and so one speaks, normally, about the distance "between" two places rather than "from" one place "to" another.

Furthermore, FAR and NEAR appear to suggest a different perspective: while both refer to two places (it is far from *A* to *B*, it is close from *A* to *B*), FAR seems to be more particularly "far from", and NEAR, "near to". Thus, while one can say both:

Is it far from *A* to *B*?
?Is it close from *A* to *B*?

one can only say:

She lives far from us
She lives near (to) us,

not

*She lives far to us.
*She lives near from us.

It seems, then, that in English at least, FAR has an inherently "ablative" perspective (FAR FROM), and NEAR, an inherently "allative" one (NEAR/CLOSE TO). Furthermore, it seems likely that FAR is, first of all, "far from here" ("far from this place"), whereas NEAR is, first of all, "near to" (see "be near me, Lord Jesus"). This difference in perspective ("ablative" versus "allative") offers additional support for the view that FAR and NEAR cannot be reduced to some unitary concept of 'distance'.

A third possible approach would be to try to reduce both FAR and NEAR to their respective comparatives, along the following lines:

far = further than one would expect
near = nearer than one would expect

But how would one then define the comparatives "further" and "nearer"? Presumably, in terms of "greater or smaller distance". But this would bring us back to the solution which we have already considered, and rejected. On the other hand, if we accept FAR and NEAR as semantic primitives, the

comparatives can be defined in the same way as all the other comparatives (see Section 16.2).

Finally, why can't FAR be defined via "long"—either as "a long way" or via "a long time"? Aren't the sentences A, B, and C below quite close in meaning?

- (A) Is it far from here to Tipperary?
- (B) Is it a long way from here to Tipperary?
- (C) Would it take a long time to get from here to Tipperary?

But first, the expression "a long way" has, so to speak, an "allative" perspective, not an "ablative" one, as the phrase "a long way to" shows:

It is a long way to Tipperary.
?It is far to Tipperary.

The phrase "a long way to" reflects the point of view of someone who is thinking about the destination, not about the point of departure.

Second, a decomposition of *far* into 'long' and 'way' wouldn't take us very far because it only generates two further questions: what is "long" and what is "way"? Without independent definitions of "long" and "way", even if we managed to convince ourselves that *far* means the same as *a long way*, this could mean only that the expression *a long way* is an unanalysable lexeme (an allolex of *far*).

An analysis of 'far' via 'a long time' cannot be accepted either. Under certain conditions, journeying-time may provide a satisfactory answer to the question "how far?", but generally speaking, the two questions "how far is it?" and "how long would it take to get there?" do not mean the same. For example, the sentence

It would take a long time to get from *A* to *B*.

doesn't really imply that it is far from *A* to *B* (e.g. places *A* and *B* could be separated by mountains). Similarly, the sentence

How far is the sun from the earth?

doesn't mean the same as

How long would it take to get from the earth to the sun?

I conclude, then, that both NEAR and FAR are, in all probability, universal semantic primitives. The fact that in many languages the concept of NEAR appears to play an important role in demonstrative systems provides additional evidence for the importance and "basicness" of this concept.

I would add, however, that by tentatively positing both these elements as primitives I do not mean to suggest that they are fully symmetrical, and, in some sense, perfect "opposites".

In the literature on language acquisition it has often been mentioned that the spatial notion of 'proximity' (see e.g. Johnston 1985: 969) or 'contiguity' (Slobin 1985a: 1180) emerges very early in child language; and the terms "proximity" and "contiguity", as well as "beside" (e.g. *ibid.*), are used interchangeably in those discussions. The generalization that the basic development order of "locative notions" is "in/on" < "under" < "beside" (*ibid.*) is based on research in which the label "beside" represents (for English) a series of expressions including *beside*, *by*, *near*, *next to*, and *close to* (Johnston and Slobin 1979: 534). For Italian, the label 'beside' represents the expression *vicino a*, 'close to' (Clark 1985: 745). This means, however, that what has been described as "the notion 'beside'" may in fact correspond better to the proposed primitive NEAR. On the other hand, given the early emergence and the use of the concept 'near/beside' in child language, the proposed primitive NEAR should perhaps be seen as referring, primarily, to a relation between people and things (*X* is near to/next to *Y*) rather than to a distance between places (like FAR).

Slobin's (1985a: 1180) observation that "All crosslinguistic acquisition data point to an initial salience of topological notions of containment, support and contiguity" can perhaps be related to the semantic evidence supporting the notions INSIDE ("containment") and NEAR TO ("contiguity"); and, perhaps, also to a possible primitive 'on' or 'touch' ('support/surface'), not included in the present system.

19.2. SIDE (ON WHAT SIDE)

The concept of SIDE (suggested as a possible primitive by Goddard, personal communication) is crucial for people's spatial "orientation". A fundamental frame of reference for spatial orientation is provided by the human body, with its basic four sides, organized, conceptually, in the form of two pairs:

- (1) on the right-hand side ("on the right side")
on the left-hand side ("on the left side")
- (2) "in front"
"behind"

For the concepts of 'in front' and 'behind' two alternative analyses (see A and B below) can be proposed, both supported by widespread patterns of polysemy: one based on the concepts of 'face' and 'back' or 'behind' (as names of body parts) and the other based on the concepts of 'before' and 'after':

- (A) in front of me = on the same side as my face
behind me = on the same side as my back/behind

(B) in front of me = on one side of me

I can see things on this side
behind me = on one side of me

I can't see things on this side

The idea that the concepts 'front' and 'behind' are based on the notion of 'seeing' is consistent with the finding (Johnston 1985) that "the first uses of *behind* in English refer only to a smaller object totally hidden from view by a larger object" (Slobin 1985b: 1180).

Of the two body-centric orientational pairs ("front" versus "back", "on the right" versus "on the left"), the first one, "front" versus "back", appears to play an important role in all languages and cultures, whereas the second one, "on the right" versus "on the left", is more restricted as a frame of orientation (see Levinson and Brown 1992).¹³ If it is true, however, that the "body-centric" ideas of 'front' and 'back' are universal, this fact by itself supports Kant's (and Vico's) tenet that the human body provides an important frame of reference for human interpretation of space.¹⁴

Another important frame of reference is provided by the natural environment, and, in particular, by the sun. On analogy with the four sides of the body, the natural environment, too, appears to be almost universally interpreted in terms of four sides. If in the human body the four sides are distinguished with reference to the right hand and the face, in the natural environment the basic reference-point is provided by the sun.¹⁵ Here, too,

¹² To speak of a person's front as a "side" may seem counter-intuitive, even absurd, because with reference to a person's body we normally speak of only two sides: the right side and the left side. But this is due to the polysemy of the word *side* in English. For example, in Polish, the two "sides" of a person's body, that is, the right side and the left side, are called *bok*, whereas *side* as a semantic primitive is expressed by the word *strona* (more precisely: ON SIDE *X* = PO STRONIE *X*, where *strona* is used in the locative case, and *po* is a preposition). (For a definition of 'face', see Chapter 7.)

¹³ Levinson and Brown (1991) question the importance of the concepts 'in front of' and 'behind' in the conceptualization of space, referring, in particular, to the Australian language Guugu-Yimidhirr: "Instead of notions like 'in front of', 'behind', 'to the left of', 'opposite', etc., which concepts are uncoded in the language, Guugu Yimidhirr speakers must specify locations as (in rough English gloss) 'to the North of', 'to the South of', 'to the East of', etc." However, Haviland's (1979: 179) basic vocabulary list of this language does include a word (in fact, two) glossed as 'in front'.

¹⁴ For a different view, see Levinson and Brown (1992).

¹⁵ The importance of the four sides of the body as a basis for spatial orientation was recently disputed by Levinson and Brown (1992), who write: "Kant was wrong to think that the structure of spatial regions founded on the human frame, and in particular the distinctions based on left and right, are in some sense essential human intuitions." A counter-example to Kant's theory is provided, according to Levinson and Brown, by the Mayan language Tzeltal, of which they say: "It is true that they [the Tenejapans, i.e. the speakers of Tzeltal] have names for the left hand and the right hand, and also a term for hand/arm in general. But they do not generalize the distinction to spatial regions—there is no linguistic expression glossing as 'to the left' or 'on the left-hand side' or the like" (1992: 5). If this statement was accurate then SIDE couldn't be a universal semantic primitive; for if Tzeltal has words for the right hand and the left hand (as Levinson and Brown tell us), and if it also had an expression meaning

the four sides are divided, conceptually, into two pairs. Thus, for "east" and "west" explications along the following lines can be proposed:¹⁶

the east side = every day people can see the sun on this side
before they can see it above them

the west side = every day people see the sun on this side
after they see it above them

Like the four sides of the body, the four sides of the world, too, are widely used as a frame of reference for "orientation". To illustrate (from the Australian language Yir-Yoront; Alpher 1991: 165-6):

An kawrr nhilin.

'she is sitting just to the east here' [just off to your left]

This can be explicated along the following lines (where A refers to the Yir-Yoront sentence, and B, to the English gloss):

- (A) every day people can see the sun on one side before they can see it above them
- she is sitting on the same side, very near [to here]

'on [this, one, etc.] side of ...', then presumably there would be no difficulty in putting the two together and constructing expressions meaning 'on the side of the right hand' and 'on the side of the left hand'. I suspect that this indeed is the case, although, needless to say, the matter requires verification. I do not doubt the accuracy or the importance of Levinson and Brown's findings that the concepts of 'right' and 'left' play a relatively minor role in the Tzeltal system of spatial orientation. But perhaps they go too far when they say that in Tzeltal 'right' and 'left' don't have "regional extensions" at all, especially since they themselves produce two Tzeltal sentences glossed as "The man is standing at the woman's right hand" and "The man is standing at her left hand". The interpretation of such sentences suggested by Levinson and Brown along the lines of "The man is standing NEAR the woman's right hand" (rather than "ON THE SIDE of the woman's right hand") seems to me unconvincing. One could say that a butterfly was hovering near a woman's right hand but not that a man was standing near her right hand (unless he was a Lilliputian standing on a chair). The two Tzeltal sentences in question bring to mind a line from the Apostles' Creed: "et sedet ad dexteram Patris", and is seated at the right hand of the Father". Surely, the idea is not that Christ is sitting near the right hand of the Father, but that he is sitting near the Father, on his right-hand side. One can imagine a language in which the word for 'nose' is polysemous and means also 'front'. (In fact, Mary Laughren, personal communication, informs me that Warpiri is a case in point.) In a language like that, to say 'the man was standing in front of the woman' one would have to say something homophonous to 'the man was standing at the nose of the woman'. On this basis, someone might argue that the sentence in question really means 'the man was standing near the nose of the woman'. But would anybody ever want to say a thing like that (speaking of normal-size people, both standing on the ground)? The same, I think, applies to the right hand. I conclude, then, that interesting as the Tzeltal examples may be, there is no reason to regard it as a counter-example to the hypothesis that SIDE (ON SIDE X of Y) is a lexical and semantic universal.

¹⁶ I am not assuming that the words for the "four sides of the world" mean exactly the same in different languages. On the contrary, I expect that the details of the conceptualization—especially for 'north' and 'south'—may well differ from one language, or one group of languages, to another.

- (B) your left hand is on one side of you
she is sitting on the same side, very near [to you]

As this example illustrates, in Australian languages (as in many other languages of the world; see e.g. Levinson and Brown 1991; Haviland 1991), the natural environment (especially the sun) plays a more important role as a frame of reference for spatial orientation than it does in English and other European languages. At the same time, the universal or near-universal division of the world into "four sides" (two pairs of two sides) is undoubtedly modelled on the "four sides" (two plus two) of the human body.

19.3. INSIDE

You can't see it cause it's way inside.

(from a 2-year-old; Bloom 1991: 384)

The concept of INSIDE (like SIDE, put forward as a possible primitive by Goddard, personal communication) is relevant to all natural and human-made "containers". Among the natural "containers", the most salient is perhaps the mouth, presumably conceptualized all over the world as a part of the body meant for, roughly speaking, "putting something in" (as well as speaking; see Chapter 7). But presumably the whole body can be seen, across cultures, as something INSIDE which there are various interesting and important "things" (or "parts"). In the natural environment, the concept of INSIDE is clearly relevant to caves and also to animal dwellings: burrows, tree-holes, nests, and the like. Among the human-made "containers", the most important ones are no doubt human dwellings (houses, huts, and so on), and also containers for food and drink (pots, cups, bowls, and so on).

In English, the word *inside* often appears to be interchangeable with *in*:

inside the house = in the house
inside the cave = in the cave
inside the jar = in the jar

But this is not always the case, either because a substitution of *inside* for *in* changes the sense (A) or because the resulting phrase is unacceptable:

- (A) in the garden ≠ inside the garden
in the walls ≠ inside the walls (of the city)
- (B) in the milk ≠ *inside the milk
in the air ≠ *inside the air

Clearly, the English preposition *in* (like its closest translation equivalents in many other languages) is polysemous; and this is not the place to try to sort out its different meanings. *Inside*, too, has more than one meaning:

(1) People don't know what happens inside a volcano.

(2) I was inside when it happened.

(3) I went inside.

(4) Outside China, people don't talk about it much, but inside the country, people don't seem to be talking about anything else.

*Inside*₄ (as in sentence 4) has a contrastive meaning, built upon the notion of 'outside' (*inside*₄ = not outside). *Inside*₂ is adverbial and refers specifically to a 'dwelling' (human or animal). *Inside*₃ is directional and refers to a sequence of times (roughly: before I moved, I was not inside₁ the dwelling; after I moved, I was inside₁ it). *Inside*₁, however, appears to be indefinable. ("Outside" is not a candidate for a primitive, as it is clearly composed of *INSIDE* and *NOT*: outside *X* = not inside₁ *X*.)

As mentioned earlier, the prepositions *in*, *on*, and *under* (and their closest equivalents in other languages) emerge particularly early in child language, and in a particular order (*in* → *on* → *under*; Johnston and Slobin 1979; Slobin 1985a); and cognitive development has often been linked with the order of acquisition of locative prepositions. For example, Mills (1985: 237) writes: "If prepositions are classified according to the complexity of the conceptual relationships encoded in them, the resulting order of complexity could predict the order of acquisition . . . this classification will predict, for example, that the preposition expressing the notion 'in' will be learned before that expressing 'between'." But it is not clear what exactly is meant here by "the notion 'in'". As mentioned earlier, *in* is a polysemous word and if one simply counts the occurrence of *in* in child language, one cannot be sure what concept or concepts are being expressed. For example, in the phrase *in the cup*, *in* means 'inside', but in the phrase *in this place*, *in* is only a part of the phrase *in a place* (which as a whole means 'somewhere').

It is possible that the data on the early use of the preposition *in* in English conflate the use of two different semantic primitives in child language, both supported by independent evidence: the early emergence of *where*-questions (see e.g. Ervin-Tripp 1970; Tyack and Ingram 1977) and the early comprehension of the preposition *inside* (see Bates *et al.* 1988: 190). For example, in a sentence such as "I no make duty in the potty!" (Bloom 1991: 198), *in* presumably means 'inside'. On the other hand, if a child takes his guinea-pig home from school "cause they don't belong in school" (Bloom 1991: 385), it is likely that *in* means 'where' rather than 'inside'.

I presume that Slobin's (1985a: 1180) observation (quoted earlier) about the initial salience of "the notion of containment" refers to the notion *INSIDE*, not to the notion *PLACE*.

19.4. HERE

HERE is a spatial counterpart of *NOW*, more of which will be said later (Section 20.2). Both these elements were put forward as possible primitives by Cliff Goddard (personal communication). On the face of it, 'here' is not a semantic primitive, because it seems to be clearly decomposable into 'this' and 'place', along the following lines: "here = in this place". The fact that in many languages (e.g. in Samoan; see Mosel 1994: 339) the three concepts 'here', 'now', and 'this' share the same lexical exponent appears to support this analysis.

But if we identify 'here' with 'this place', then we cannot use the expression 'this place' in explications with reference to any other place that we may wish to talk about (for example, "this other place"). On the other hand, if we tried to link the concept of 'here' more tightly with the concept of 'I' as "the place where I am", this would solve some difficulties but it would create others. For example, if I refer to two small objects lying in my open hand, such as two rings, as "this one here" and "this one", the phrase "this one here" can hardly mean 'the one which is in the place where I am'.

The problems which arise in the attempts to decompose *HERE* are similar to those which arise in the case of *NOW*. In both cases, the conclusion suggests itself that in fact the attempts at decomposition are futile, and that *HERE* and *NOW* are semantically simple, as the "deictic substantives" *I* and *YOU* are simple. (For further discussion, see Section 20.2.)

20. Time: A LONG TIME, A SHORT TIME, NOW

20.1. A LONG TIME and A SHORT TIME

Having once tried to reduce all temporal concepts to non-temporal ones, (Wierzbicka 1972, 1980), to have three temporal primitives (*WHEN*, *AFTER*, and *BEFORE*) seems a lot, and yet over the years it has become increasingly clear that even this set is not sufficient to deal with all the aspects of time. In particular, it is not sufficient to deal with duration and, more generally, "passage of time". Simple sentences such as:

I did it for a long time.

It happened a long time ago.

could simply not be paraphrased in terms of the available temporal concepts; and yet sentences of this kind appear to be very common in everyday discourse, in all languages. As Keesing (1994: 6) notes about the Kwaio, "Talk about the passage of time (in reference to how long garden work will be done, or when the pork will be cooked, or how long someone will be gone)

is, for the Kwaio as with us, a constant theme of quotidian experience and communication." So finally it became clear that, in addition to the three basic "temporal" primitives WHEN, AFTER, and BEFORE, something else was needed to account for the "passage of time"; and the answer came in the form of two "duration" primitives, A LONG TIME and A SHORT TIME, analogous to the two "distance" primitives FAR and NEAR.

By introducing these two primitives, I am following, once more, in the footsteps of the Cartesians, who regarded both "time" (*temps*, presumably, in the sense of 'when', although they never bothered to make it clear) and "duration" (*durée*) as irreducible, clear ideas, which cannot be further defined. (See e.g. Arnauld 1662/1964: 66, 86.)

Since we aim always at a minimal set of primitives, it would be preferable, of course, to introduce one "durational" primitive rather than two, and, at first sight, this does seem possible: why not posit a neutral primitive, "some time", and then generate the meanings 'a long time' and 'a short time' by combining this neutral primitive with the available elements MUCH and NOT MUCH?

But there are strong arguments against such a move. First of all, experience and preliminary inquiries suggest that languages are more likely to have words, or phrases, for the concepts A LONG TIME and A SHORT TIME than for the putative concept "some time".

Having two "extreme" durational primitives rather than a single one covering the whole range may seem to create unnecessary difficulties in the area of measures. For example, how could one analyse in these terms a question such as "How long was he there?"?

But the semantics of measures is notoriously complex. In everyday discourse across cultures people are no doubt more likely to ask: "was he there (for) a long time?" than "how long was he there?"; and it would be wrong to treat the latter question as semantically simpler than the former.

Can all "durational" concepts be explicated in terms of the primitives A LONG TIME and A SHORT TIME? I do not claim that. It seems likely that some concepts which might be called "durational" would call for a different approach. For example, very tentatively:

He did it from sunrise to sunset. =
(Cf. He did it all day.)
he didn't do it before the sunrise
he didn't do it after the sunset
he did it at all times
after the sunrise before the sunset

But I do not think that we can explicate all references to time without some explicitly durational primitives, such as the two primitives proposed here: A LONG TIME and A SHORT TIME.

It should, however, be pointed out that of the two primitives proposed here one (A LONG TIME) is a stronger candidate than the other (A SHORT TIME). Unlike in the case of NEAR and FAR, there are perhaps no compelling arguments against an analysis of one primitive via the negation of the other (a short time = not a long time).

If we consider, for example, references to 'a short time' in transcripts of children's speech, they commonly take the form of the expression "for a little while", or "a little bit", and these could perhaps be paraphrased, without a loss of meaning, via "not long". For example (French and Nelson 1985: 106-7):

First I wake up and wake my mom and dad up then sleep with them for a little while.

And we wait for a little while, but not too long, then we go back in the school and play.

... and we go and wait for a little while and then the waiter comes and gives us the little stuff with the dinners on it, and then we wait for a little bit ...

On the other hand, it is not clear how words such as *moment* or expressions such as *at once* could be defined via negation and 'a long time'.

In a cross-cultural perspective, too, the evidence is mixed. Preliminary investigations suggest that finding matching equivalents for "a short time" is not as unproblematic as it is for "a long time". But the matter requires further investigation.

20.2. NOW

Another temporal concept, NOW, first proposed as a semantic primitive by Cliff Goddard at the Adelaide Semantic Workshop (Goddard 1986a), belongs to the "deictic" subset of the primitives, which includes also the "substantive" elements I and YOU, the "determiner" THIS, and the spatial element HERE. For a long time, this element was not included in the proposed set of primitives because it seemed to be decomposable into other primitives. In fact, there seemed to be not one but two plausible ways of decomposing 'now', which for ease of reference I will designate as A and B:

- (A) now = at this time
- (B) now = at the time when I say this

The fact that, as mentioned earlier, in some languages (e.g. in Samoan; see Mosel 1994: 332) the same word is used not only for 'this' and 'here' but also for 'now' appears to support this analysis.

As pointed out by Goddard, however, neither of these two analyses is really satisfactory.

Analysis A makes it very difficult, if not impossible, to refer to more than one time as 'this time'. For example, if we say in a semantic formula:

this happened a long time ago
at this time ...

it is not clear whether the expression "at this time" refers to the time of reference or to the time of speech, and it seems impossible to differentiate between the two. Given that *ago* means 'before now', if *now* meant 'at this time', *ago* would mean 'before this time', and one couldn't refer to a time 'before this time' as 'this time'.

This particular difficulty is resolved in analysis B, where "the time when I saw this" can be clearly distinguished from "a time before the time when I saw this". But as pointed out by Goddard, the word *now* can be used, and is normally used, with reference to a period much longer than the moment of speech (cf. e.g. the English expression *nowadays*). Furthermore, the three tenses distinguished in many languages of the world, present, past, and future, are normally used with reference to a period much more extensive, or extendible, than the very moment of speech. For example, if I say:

I now live in Canberra, but before, I lived in Ballarat in Victoria.

I do not mean to suggest that I have moved to Canberra immediately before the moment of speech.

The hypothesis that *NOW* is in fact a universal semantic primitive simplifies enormously semantic analysis of the various tense systems and allows us to operate with very simple distinctions such as "now", "before now", "after now", "a long time before now", "before now, not a long time before now", and so on. At the same time, this hypothesis frees the expression "this time" from its links with the present time and allows us to use it freely with reference to any time that we wish to speak about.

What may seem objectionable about the present analysis is that it would present the word *now* and the expression *this time* as semantically unrelated, and would not allow us to account explicitly for the "deictic" nature of the concept 'now'. But the same objection could be raised with respect to I and YOU, both primitives of long-standing and apparently unshakable status, and it would fall on the same grounds: I and YOU, too, have often been called "deictic concepts" and they do have a semantic link with the expression "this person", but this link is not compositional. If neither I nor YOU can be equated with "this person", *NOW* cannot be equated with "this time"; and if I and YOU cannot be equated with "the person who says this" and "the person to whom I say this", respectively, *NOW* cannot be equated with "the time when I say this".

21. Imagination and Possibility: IF ... WOULD, CAN, MAYBE

21.1. IF ... WOULD

If you would have eaten all that turkey, your tummy would have exploded.

(a remark by a 4-year-old; Kuczaj and Daly 1979: 575)

The discontinuous expression *if ... would* can be used in English in two different senses (and in two different grammatical frames): as a hypothetical referring to a real possibility or as a counterfactual, as in the motto to this section. It is this second, not the first, use which is posited here as a universal semantic primitive. The hypothetical *if ... would* can be defined in terms of 'if', as follows:

If X happened, I would do Y. =

if X happens, I will do Y

I don't say: I think: it will happen

But the counterfactual *if ... would* cannot be similarly defined; and preliminary evidence suggests that the counterfactual *if ... would* (in contrast to the hypothetical *if ... would*) may well be a linguistic universal. (See Wierzbicka, forthcoming g.)

In English, and in many other languages, the counterfactual (*if ... would*) overlaps formally with the conditional (*if*). In many other languages, however, the two elements in question do have distinct lexical exponents. For example, in Samoan the word for IF (the IF of real possibility) is *afai*, whereas the word for the counterfactual IF ... WOULD is *'ana* (Mosel and Hovdhaugen 1992: 656; GENR stands for general tense-aspect mood particle, DIR for directional particle and ES for ergative suffix):

- (1) *'Ana 'e lē sau, semanū 'ou te alu atu.*
if(IRR.) 2.SG not come, probably 1.SG GENR go DIR
'Had you not come, I was probably going to go and see you.'
- (2) *Afai ua lapoa se puaa, o le a fana = ina loa*
if PERF large ART(NSP.SG.) pig FUT shoot = ES then
ma faatau atu l = o = na tino...
and sell DIR ART = POSS = 3.SG body
'If a pig gets fat, then it will be shot and its body will be sold ...'

A lexical overlap analogous to the English one occurs also in the Australian language Yankunytjatjara (Goddard 1994b: 249), where the word *tjinguru* by itself (used in a biclausal sentence) means IF, whereas

the same word combined with a "potential" inflexion on the main verb of the main clause means IF ... WOULD (Goddard's numbers):

- (65) *Tjingurula wiyampa iluma.*
if-we NO:INTEREST die:POT
If we'd been without (a radio) we would've died.
- (66) *Ka nyuntu tjinguru tjukurpa tiijatjara*
and you if story long-ago:ASSOC:HAVING
nyakula kulinjikitja mukuringkula nyiri
see:SERIAL think:INTENT want:SERIAL paper
pala palunya nyawa.
that DEF:ACC see:IMP
'So if you want to read Old Testament stories, look at that book.'

Both the elements IF and IF... WOULD are, so to speak, descendants of the notion 'imagine', posited as a primitive in *Semantic Primitives* (Wierzbicka 1972). The main reason why the mental predicate 'imagine' was later removed from the list was that as a predicate, it proved not to be universal. On the other hand, the interclausal linker IF emerged as both indefinable and universal (see Chapter 6), and for a long time it seemed that the notion of IF would be sufficient to account for the meanings associated, loosely speaking, with the area of imagination and "irrealis". Despite continued efforts, however, it has proved impossible to reduce counterfactual sentences to conditional ones. For example, the sentence

If I were you I wouldn't do it.

cannot be adequately paraphrased along the lines of

If I am you I will not do it.

As Tim Curnow (personal communication) pointed out, by virtue of their meaning, IF sentences put forward a real possibility, whereas IF... WOULD sentences allow for the impossible, and so one type cannot be used to paraphrase the other (without a change of meaning).

This is why no additional components disclaiming the reality of the supposed condition can make a paraphrase of IF... WOULD in terms of IF work. For example:

- If I were you I wouldn't go. #
I am not saying that I am you
if I am you I will go
- If I were the sun I would shine only for you.¹⁷ #
I know that I am not the sun
I know that I can't be the sun

¹⁷ The words from a Chopin song.

if I am the sun, I will shine only for you

Clearly, paraphrases of this kind do not make sense. (For further discussion, see Wierzbicka forthcoming *g*.)

Julian Evans (1993: 243) writes this, sardonically, about the Marshallese people of Micronesia:

There is something missing, some path in the mental process, an awareness of the conditional, an ability to envisage consequences, the conditional intelligence that motivates imagination, speculation, the control of the future. If this is right, if the Marshallese don't possess the ability to say 'what if ...' or 'if ... then ...', then they and the Americans who have succeeded in treating them as children for so long must be made for each other.

Cross-linguistic evidence suggests that "an awareness of the conditional", an ability to say 'what if ...' or 'if ... then ...', is indeed a human universal. I submit that "an awareness of the counterfactual", an ability to say 'had this not happened, that wouldn't have happened', may also be a human universal, a vital path in the human mental process, an indispensable element of human language and cognition. (See Landman 1993: 37.)

21.2. CAN and MAYBE

Can't.

(2-year-old unable to get out of large pot; Fletcher 1979: 280)

CAN and MAYBE are awkward primitives to posit because they seem to be inextricably linked. In many languages they share the same lexical exponents; for example in Polish, the word *może* can mean either MAYBE or CAN.

- (1) *Może on to zrobi.*
maybe he it will-do
'maybe he will do it'
- (2) *On to może zrobić.*
he it can (3rd sg) do
'he can do it'

The particle *może* means MAYBE; but the verb *móc* (infinitive) can mean either MAYBE or CAN (and there is no other word meaning only CAN). Yet the two meanings are clearly distinct, and can even co-occur in the same sentence:

- Ona nie może tego zrobić, może ktoś inny może*
she Neg can this do, maybe someone else can
'she can't do this; maybe someone else can'

Similarly, in English:

ADULT. What would happen if people were fish?
CHILD. Then if a whale came, they would get eaten. But if they hid, the whale
maybe couldn't find 'em. And, then they wouldn't get eaten.

(Kuczaj and Daly 1979: 573)

The fact that, despite lexical overlaps, the concept MAYBE is realized in both English and Polish as a particle, whereas the concept CAN is realized as an "auxiliary" verb, is not accidental: it appears that MAYBE tends to be realized, in most languages, as a sentence particle, whereas CAN tends to be realized either as a quasi-verb or as a verbal suffix. An interesting example is provided again by Yankunyijajara (Goddard 1994b: 248), where MAYBE is realized as a sentence particle *tjingu* whereas CAN is expressed by the verbal inflexion *-ku* (which, Goddard notes, is frequently found in sentences also containing *tjingu*. Goddard's numbers):

(62) Ma-pitja-ku-ŋa?

away-come-FUT-I

'Can I come in?'

(63) Punkal-ku-n.

fall-FUT-you

'You could fall.'

In the list of primitives tested in *Semantic and Lexical Universals* (Goddard and Wierzbicka 1994b), the elements distinguished here as CAN and MAYBE were in fact regarded as variants of one primitive referred to as CAN. Further work in this area has shown, however, that it is necessary to split this supposed primitive into two.

The main argument in favour of the two separate primitives MAYBE and CAN is that neither of them can be adequately decomposed in terms of the other, or in terms of anything else. If anybody doubts this, I would invite them to have a go at a reductive analysis of the following sentences:

(1) I can't do it now; maybe someone else can.

(2) I can't do it here; maybe I can do it somewhere else.

(3) You can't see it now; maybe you can see it later.

(4) I can't say it is far, I can't say it is near.

The ideas of 'cannot' and 'can' reflect the fundamental human experiences of constraint and freedom from constraint. Perhaps the prototypical use of these ideas is in the context of movement:

I can't move/I can move.

(perhaps an archetypal experience of a baby, tightly held, or wrapped up, and then given the freedom to move).

I can't do it/I can do it.

Social rules also rely on the notion of CAN:

You can't do this.

You can't say this.

You can't do it like this.

You can't do things like this.

You can do it like this.

Perhaps this is the crucial difference between moral rules, which are based on the concept of GOOD and BAD, and social rules, which are based on the concept of CAN.

Complex ideas such as 'power', 'rules', 'freedom', 'opportunity', 'ability', and 'skill' could never be explained and understood if we didn't have the concept of CAN at our disposal.

It could be suggested that CAN is linked in a special way with 'wanting'—so much so that one may even be tempted to explicate one in terms of the other (as I did in Wierzbicka 1989c: 318–19). For example:

God can do everything. =

If God wants to do something, he does it.

or, alternatively:

If God wants to do something, he will do it.

An analysis along these lines seems also to have the virtue of accounting for the intuitively felt link between CAN and IF (as J. L. Austin (1961: 153) put it, "cans are ify"). But neither of the above two paraphrases is really satisfactory, as neither of them conveys the intended idea of "omnipotence".

Consider also sentences such as the following ones:

Her stomach cannot digest fatty foods.

After we built a dam here, the water couldn't flow in this direction any more.

which can hardly be paraphrased in terms of WANT:

When her stomach wants to digest fatty foods it does not do it.

When the water wants to flow in this direction it doesn't do it.

We are forced to conclude, therefore, that while CAN is a pre-condition of doing what one wants to do, it cannot be simply reduced to it.

Turning now to the notion of MAYBE, we will note that it has nothing to do with 'power', 'rules', 'freedom', or 'wanting'. If CAN is related in a special (non-compositional) way to WANTING, MAYBE is related in a special (non-compositional) way to KNOWING (or rather, not knowing). One can't say, for example:

*I know she will come, but maybe she will not come.

*I know she will not come, but maybe she will come.

Nevertheless, MAYBE cannot be reduced to KNOW (or NOT KNOW) any more than CAN can be reduced to WANT. The sentence "maybe he did it" implies that "I don't know whether he did it", but cannot be reduced to it.

In a sense, then, the notions CAN and MAYBE can be regarded as clear and indispensable. On the other hand, in many contexts the distinction between these two concepts appears to be blurred. For example:

This can break.

Something bad could happen to them.

Bad things can happen to everybody.

They can't know about this.

In terms of the traditional distinction between 'possibility' and 'ability' the sentences above would no doubt be linked with 'possibility'; but it is difficult to see how these sentences could be paraphrased (without a change of meaning) with MAYBE and without CAN.

In earlier work (Wierzbicka 1972), I tried to account for the semantic links between CAN sentences with personal subjects (such as "I can move/do/see/hear/say") and those with inanimate subjects (e.g. "this can break", "something bad can happen") in terms of a "hidden" personal predicate, along the following lines:

This can break = I can think: this will break.

(A similar analysis was also proposed by Antinucci and Parisi 1976.) But I no longer regard this analysis as valid. To begin with, one could equally well try to 'recover' a hidden 'think' in all other CAN sentences:

I can't do it. = I can't think: I will do it.

I can't move. = I can't think: I will move.

But this is counter-intuitive and unconvincing, and sometimes can lead to absurd results:

God can do everything. = I can think: God will do everything.

Undoubtedly, the distinction between CAN and MAYBE in sentences with inanimate subjects requires further investigation. But in sentences with human subjects the distinction between these two concepts seems well established, despite the facts that both CAN sentences and MAYBE sentences can be paraphrased (approximately) in terms of 'possibility':

Maybe she will do it. ≈ It is possible that she will do it.

God can do everything. ≈ Everything is possible for God.

To account for the fact that, on the face of it, two concepts posited as distinct and irreducible semantic primitives can both be replaced with one concept of 'possibility', I would suggest that the notion of 'possibility' is more complex than either MAYBE or CAN, and, in a sense, spans over both of them, rather like the abstract notion of 'distance' spans over both FAR and NEAR, or the notion of 'size' spans over both BIG and SMALL. The analogy is not perfect because FAR and NEAR, or BIG and SMALL, are intuitively felt to be 'opposites', whereas CAN and MAYBE are related in some other way. But maybe even this imperfect analogy can help us to accept that, related as they are, MAYBE and CAN may none the less be two distinct and irreducible semantic primitives.

It should also be pointed out that while the concepts CAN and MAYBE often share their lexical exponents (in different grammatical forms), this is by no means universal. (See for example the contrast between the verb *können*, 'can', and the particle/adverb *vielleicht*, 'maybe', in German). Recurring lexical overlaps are a common feature of many primitives (e.g. SOMEONE and OTHER, or MAYBE and IF), and while they are clearly not accidental, there is no reason to assume that they must be due to compositional semantics. (For discussion, see Wierzbicka 1994b.)

22. WORD

The concept of WORD (or 'words') may seem redundant in the lexicon of semantic primitives because it is intuitively related to the concept of SAY: a deed is something that one does, a word is something that one says.

But the analogy between "word" and "deed" is only partially valid: while one can indeed "say" a word, or some words, one can also say something "in" some words—in these words or in some other words. (In fact, this is what semantic analysis is all about: ways of saying the same thing in other words.)

Generally speaking, we can talk about speech (about "saying" things) without a reference to "words"; in some cases, however, a reference to "words" appears to be essential to the intended meaning, as the following contrast illustrates:

(A) You said something bad about this person.

(B) You said some bad words to this person.

Sentence A can refer to a criticism, whereas sentence B is more likely to refer to some swear-words.

The notion of "swear-words" is a good example of the apparent indispensability of the concept 'words': one cannot "swear" without saying what is regarded in a given society as some "bad words" (for a fuller discussion of "swearing", see Wierzbicka 1987a).

Other categories of speech which appear to involve crucially the notion of 'word' include names, counting performative verbs (e.g. *promise*), speech formulae (e.g. *Goodbye*), and magical formulae (see Goddard forthcoming a). For example, a "name" is a word (or words) generally used to identify someone or something; "counting" involves saying a word that means 'one', after that a word that means 'two', then a word that means 'three', and so on; magical speech involves saying certain words to cause certain things to happen, and so on. (These are of course not full definitions, but only partial characterizations of the phenomena in question.)

"In the beginning was the word" (John 1: 1). Distant as this sentence is from normal everyday life, Bible translators seem to find less difficulty in translating it into numerous languages of the world than many much more prosaic and down-to-earth sentences (see e.g. Nida 1947). If the concepts BEFORE, ALL, SOMETHING, OTHER, HAPPEN, THERE IS, NOW, SOMEONE, SAY, and WORD are all universal human concepts, the relatively easy cross-translatability of this sentence would be easy to understand:

BEFORE NOW
BEFORE ALL THINGS HAPPENED
THERE WAS A WORD (or: SOMEONE SAID A WORD)

23. General Discussion: Opposites and Converses

The present system of semantic primitives may seem uneconomical in so far as it includes some pairs of "opposites". To begin with, there is the pair of evaluators GOOD and BAD, the oldest and the best-established one. Although these two elements have, intuitively, something in common, I have rejected the temptation to extract from them some semantic common core ("value"), and to distinguish the two as a "positive" and a "negative" member of the pair. Rather, I have assumed that concepts such as 'value', 'positive', and 'negative' are more complex than the basic elements GOOD and BAD, and that although these two elements do form a coherent mini-system apart from all the other elements, none the less none of them can be further decomposed.

In addition to GOOD and BAD, the present system of primitives includes now two (and possibly three) further pairs of "opposites": BIG and SMALL, and FAR and NEAR (and possibly also A LONG TIME and A SHORT TIME). Aiming at a minimal system of primitives one must be tempted, of course, to reduce such elements further, extracting for each pair a common core, and positing for all pairs two "poles": +POL and -POL (along the lines suggested by Bierwisch 1967). One could try, then, to reduce BIG and SMALL to "size", FAR and NEAR to "distance", and A

LONG TIME and A SHORT TIME to "duration", with the addition of the two recurring features "+POL" and "-POL".

Following this line of analysis, we would be able to account, in compositional terms, for the fact that within each pair the "+POL" can stand for both members of the pair:

How big is it? — Very big/very small.

How far is it? — Very far/very near.

How long? — A very long time/a very short time.

But attractive as such an analysis may seem, it has to be rejected—if we require that the basic units of semantic analysis are linked with "real (intelligible) words" rather than with analytical fictions, which have no meaning unless and until they are defined in terms of intuitively intelligible real words. In real (natural) languages there are simply no such words as "+POL" or "-POL". In real speech, therefore, we cannot paraphrase a sentence such as "This dog is big" with something like "The size of this dog is +POL".

It might be suggested, of course, that the artificial words "+POL" and "-POL" could be replaced with the "real" words *big* and *small*, along the following lines:

far — big distance
near — small distance

But this would be analogous to saying that *big* really means 'big size', and *small*, 'small size'. In fact, 'size' is not a simpler concept than 'big' or 'small', but a more complex one, and so it is 'size' which has to be defined in terms of 'big' and 'small', not vice versa. Similarly, it is not 'far' which should be defined in terms of 'distance', or 'good', in terms of 'value', but the other way around.

In natural language we simply cannot go beyond words such as *far* and *near*, as we cannot go beyond *good* and *bad*. Replacing *good* and *bad* with "positive value" and "negative value" we would engage in pseudo-analysis, not in real semantic decomposition; and the same applies to attempts to replace *big* and *small* with "size", or *far* and *near* with "distance".

In saying this, I am not denying the reality of the structural relations within the area of "opposites". On the contrary, I would like to add one further observation highlighting the close affinity between the two members of each pair, namely that within each pair of "opposites" both members appear to have similar combinatorial possibilities. Since this is an observation concerning all the pairs of "opposites", it provides also a further argument for the reality of this group as a distinct subsystem within the whole system of primitives.

In arguing that the relations between the "opposites" within each pair are

not compositional (that is, that they cannot be accounted for in terms of further definitions), I argue that these "opposites" are more deeply ingrained in human cognition than they would be if they were reducible to some other elements. It is well known that "opposites" play an important role in all known human languages (see e.g. Апресян 1974, 1992; Cruse 1986; John Lyons 1977; Lehrer 1974). I am suggesting that this is not a surface phenomenon but something that is rooted in the underlying system of primitives.

What applies to "opposites" applies also to some extent to converses: BEFORE and AFTER, and possibly to ABOVE and UNDER. The system of primitives would be more economical if each pair of converses were replaced with just one element, because from a logical point of view "A happened before B" is equivalent to "B happened after A", and "A is above B" is equivalent to "B is under A".

But a natural language has its own ("natural") logic, and in this "natural logic" BEFORE and AFTER, or ABOVE and UNDER, are not mutually equivalent. In both pairs, each element is linked with one particular point of view, and in human communication a difference in point of view may be as important as a difference between two predicates. For example, while both past tenses and future tenses situate events in time with reference to the present moment, past tenses do so in terms of the concept BEFORE, whereas future tenses do so in terms of the concept AFTER:

- (A) It happened before now.
- (B) It will happen after now.

24. Conclusion

The set of proposed universal semantic primitives has expanded from 14 (in 1972) and 13 (in 1977) to 37 in 1993, and now—dramatically—to 55. The question imposes itself: how many more primitives (or hypothetical primitives) are likely to emerge from future work?

For once, I feel that humble agnosticism is in order. I would like to recall, however, that when Boguslawski launched the search for semantic primitives in 1965, he mentioned the figure 100 ("almost certainly less than a hundred", he said, as I recall). Although I still expect that the ultimate figure will be closer to 50 than to 100, I now acknowledge that (as argued by Goddard at the 1986 Adelaide Workshop), my original sets of 14 and 13 were quite unrealistically small.

As the set of primitives expands, and as their grammar takes shape, the Natural Semantic Metalanguage grows in flexibility and in expressive power. In principle, then, the expansion of the semantic system is a positive, not a negative, development.

Looking at the expanded list of primitives and comparing it with the older one, one is bound to notice that the new list is less austere not only in its size but also in its composition.

The new spatial elements, of which there are as many as five (ON [THIS] SIDE, INSIDE, HERE, FAR, and NEAR), bring the set of primitives down to earth (from its previous heights of abstraction). At the same time, the element THERE IS links the system more closely to reality, as do also the new "deictic" elements HERE and NOW.

The paired opposites FAR-NEAR, and A LONG TIME-A SHORT TIME, strengthen the element of subjectivity and add an anthropocentric, experiential perspective (as do the old primitives BIG and SMALL).

SEE and HEAR bring colour and sounds to the system, and, if I may venture to say so, MOVE brings movement, and ALIVE brings life. MAYBE brings an element of uncertainty, linked with a human, psychological perspective (quite different from the logical perspective of "possible"), and IF ... WOULD brings, or rather restores, the element of fantasy, which was once brought to the system by the ex-primitive "imagined".

All in all, then, the changes can be seen as being all for the better. It must be remembered, however, that—quite apart from the obvious requirements of Occam's razor—we are looking for the shared lexical and grammatical core of all languages; and that given the tremendous diversity of languages as we know them, this shared core is bound to be small. It is imperative, therefore, to continue to subject every proposed primitive, and every proposed grammatical frame, to relentless scrutiny, so that only those remain which are truly indispensable and truly universal.

3 Universal Grammar: The Syntax of Universal Semantic Primitives

the hypothesis about human cognition advanced here, the questions raised are disconcertingly heavyweight.

Third, this grammar has to be seen as the "real" grammar of NSM, the language of semantic description. It is proposed, therefore, as a set of constraints on NSM explications and paraphrases. These constraints will not always be adhered to in practice, but they will always have to be kept in mind, so that any departures from the rules of combinatorial semantics outlined here will be allowed only as short-cuts and compromises justified by practical considerations such as increased brevity or readability.

It hardly needs to be added that the word "always" in the last paragraph is not meant to preclude future changes in the proposed system. Despite the present attempt at codification, many areas of NSM grammar are still in a state of flux. The grammar proposed here is neither complete nor "final". It is put forward as a starting-point for testing and discussion.¹

2. Preliminary Discussion

Before turning to the survey of primitives and their combinatorial possibilities, a number of general points should be made.

First, the grammar outlined below assumes a radically expanded set of primitives (55 instead of 37 as in Goddard and Wierzbicka 1994b). Since the status of some of the new primitives is still somewhat uncertain, so is, of course, the status of their grammatical characteristics.

Second, the meta-terminology of NSM grammar is still evolving. Terms such as "valency", "linkers", "subject", "object", "complement", and "adjunct" are used in the present chapter on a somewhat provisional basis. Hopefully, however, for the present purposes their intended meaning will be clear enough.

Third, this chapter makes an extensive use of a new theoretical concept: "valency of semantic primitives". For example, it is assumed that the predicate GOOD has two different valency options: it may combine with one "substantive" (which may be called a "subject"), as in sentence A below, or with two "substantives" (a "subject" and a "complement"), as in sentence B:

(A) This is good.

(B) This is good for me/you/these people.

¹ Strict adherence to the rules of NSM syntax, as sketched in this chapter, is not always desirable, as long as all the departures from the NSM rules can be regarded as convenient abbreviations, that is, as long as we have a clear idea of how the "ungrammatical" or "semi-grammatical" segments of the explications could be replaced with fully "grammatical" ones.

1. Introduction

Most grammatical patterns in any language are language-specific, but there may also be some patterns which are universal. In fact, if cross-cultural understanding is possible at all, despite the colossal variation in language structures, there must be 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 should not be looking for universals of form, but rather for universals of combinability. This chapter is a tentative and preliminary attempt to do just that.

Trying to write a sketch grammar of the universal semantic primitives is a daunting task.

First of all, such a grammar must make a large number of predictions concerning all the languages of the world. These predictions can be empirically tested, and it is highly likely, not to say inevitable, that upon further testing some of them will turn out to be incorrect.

Second, this grammar amounts to a hypothesis about the innate grammar of human cognition. As a hypothesis about human cognition, the system developed here is not as readily testable as it is as a hypothesis about linguistic universals. Exploration of linguistic evidence may prove to be, at least for some time, the main avenue of access to the grammar of human cognition. But no matter how difficult it may be to verify—or to falsify—

This chapter owes a great deal to long discussions with Cliff Goddard, who has contributed to it many important ideas. Cliff's criticisms and suggestions led to a substantial revision of the earlier draft.

Some predicates—for example DO and THINK—may even open three “slots” for “substantives” (a first slot for a “subject”, a second, for a “complement”, and a third, for an “object”):

- someone (1) did something (2) to someone (3)
 someone (1) thought something (2) about something (3)

But although both DO and THINK can be said to open three slots, their valency options are different: DO has two valency options (A and B) whereas THINK has three (A, B, and C):

- DO
 (A) someone did something
 (B) someone did something to someone
 THINK
 (A) someone thought something
 (B) someone thought something about something
 (C) someone thought about something

Fourth, it should be pointed out that the grammar sketched in this chapter allows for several types of complex sentences, and thus goes far beyond simple clauses offered as examples of NSM sentences in earlier work (e.g. in my *Lingua Mentalis* (1980) or *Semantics of Grammar* (1988)). A key role belongs in this respect to the primitives which function, or can function, as “interclausal linkers”: BECAUSE, IF, IF . . . WOULD, LIKE, WHEN, AFTER, and BEFORE. These linkers provide a mechanism for combining two or even three clauses into one complex sentence.

Finally, the theoretical concept of “allosexy” (analogous to “allomorphy”) should be mentioned here, too, for although it is not a new concept in NSM theory, it is one which raises important questions for NSM grammar. For example, the account of the combinatorial possibilities of the primitives SOMEONE and SOMETHING proposed here depends on the assumptions that in English, *person* (in some of its uses) can be seen as an allosex of SOMEONE, and *thing* (in some of its uses), as an allosex of SOMETHING.

3. Substantives: YOU, I; SOMEONE, PEOPLE; SOMETHING

3.1. YOU and I

YOU and I have a wide range of universal syntactic roles. Perhaps the most important one among them is the role of “psychological subject”. What I mean by this is that YOU and I can universally occur in combination

with the mental predicates THINK, KNOW, WANT, FEEL, SEE, and HEAR:

- I think/know/want/feel/see/hear.
 You think/know/want/feel/see/hear.

This is not to say that there are no restrictions on these combinations. In particular, in some languages (e.g. in Japanese, see e.g. Inoue 1979; or in Hua, see Haiman 1995), only I can freely co-occur with mental predicates in declarative sentences, whereas YOU normally combines with them only in questions (and third person subjects require the presence of special “evidential” markers, highlighting the limited character of our knowledge of other people’s internal states).

YOU and I can also universally occur in combination with the action predicate DO, in a role which may be conveniently labelled as that of an “agent”, for example:

- You/I did something bad.

They can also occur in the role of a “mover”, in combination with the predicate MOVE:

- You/I moved.

Next, YOU and I can combine with the predicates of description and evaluation, as in the following sentences:

- You are a good/bad person.
 I am a bad/good person.

YOU and I can be used in the role of either of the arguments of a “relation” in relational sentences such as the following ones:

- You are like this other person/me.
 I am like other people/you.

They can also co-occur with spatial (though not with temporal) predicate phrases:

- I am in this place; you are in another place.
 I am under this thing; you are above this other person.
 I am here; you are here.
 I am far from you.

Furthermore, YOU and I occur as “patients” in combination with the universal predicates HAPPEN and DO, for example:

- Something bad happened to me/you.
 This person did something bad to me.

In combination with SAY, they can also occur in the role of an "addressee".

This person said something to me/you.

Finally, YOU and I can be used in the role of a "psychological object" in sentences such as the following ones:

I think about you.

This person knows everything about you/me.

3.2. SOMEONE and PEOPLE

By and large, SOMEONE and PEOPLE have the same combinatorial possibilities as YOU and I:

This person/these people think(s)/know(s)/want(s)/feel(s), see(s)/hear(s) something.

Someone did something (bad) to this person/these people.

Something bad happened to this person/these people.

This person/these people moved.

I said something to this person/these people.

This person is a good/bad person.

These people are good/bad people.

This person is (not) like other people.

These people are (not) like other people.

This person is in another place.

These people are in this place.

I think about this person/these people.

None the less, there are some systematic differences between YOU and I on the one hand, and SOMEONE and PEOPLE on the other. Apart from the restrictions on combinability with mental predicates mentioned earlier, SOMEONE and PEOPLE, in contrast to YOU and I, can co-occur with a wide range of "determiners", for example:

this person/these people (*this I, *this you)

the same person, the same people (*the same I/you)

another person, other people (*another you/I)

one person (*one I, ?one you)

two persons, two people (*two I-s)

many persons, many people (*many I-s)

all (these) persons, all people (*all I-s)

The reason why YOU and I, on the whole, don't combine with "determiners" and "quantifiers" whereas SOMEONE and PEOPLE do is of course

clear, given the uniqueness of every "I" and every "thou" (YOU-Sg), and the non-uniqueness of "persons" and "people".²

It should be noted that in many languages the basic word for SOMEONE doesn't readily combine with "determiners" either. For example, in English one doesn't normally speak of *this someone*, *one someone*, or the *same someone*; and in Russian the phrase *ëtot kto-to* ('this someone') is even less acceptable than its English counterpart. Usually, however, SOMEONE has allotexes which can readily combine with determiners (e.g. *person* in English); and of course words more complex than SOMEONE (but including SOMEONE in their meaning) are widely used in combination with determiners (e.g. *this man*).

Perhaps the main reason for the awkwardness of expressions such as "this someone" lies in the fact that their meaning is usually encoded in a special portmanteau, that is, in the third person pronouns such as *he* and *she* in English. The fact that most languages have such portmanteaus (sometimes with, and sometimes without, an added reference to gender) highlights the importance of the combination of THIS and SOMEONE in human discourse.

Do both SOMEONE and PEOPLE combine with all the elements included here in the list of "determiners" and "quantifiers"? I would suggest that while both these elements combine with THIS, THE SAME, OTHER, TWO, SOME, MANY, and ALL, perhaps only SOMEONE combines with ONE (as in *one person*). In fact (as mentioned earlier), English itself provides a good example of the asymmetry between PEOPLE (plural) and its non-existent singular equivalent (with the word *person* not being as strictly restricted to humans as the word *people* is). (See Chapter 2.)

What I am suggesting, then, is that perhaps the semantic element PEOPLE doesn't really combine with the "determiner/quantifier" ONE, or rather, that it can only combine with ONE in the "partitive" (or "selective") valency option ONE OF:

*one people (in the relevant sense of *people*)
one of these people

Finally, while YOU and I, as well as SOMEONE and PEOPLE, can be described as "good" or "bad" (e.g. "you are good"), only the latter pair can combine with these evaluators as attributes:

someone good/someone bad (a good person/a bad person)
good people/bad people

² The range of quantifiers with which YOU (that is, THOU) combines, may be different from that of I. The matter requires further investigation.

3.3. SOMETHING

SOMETHING (with an allolex "thing") has a wide, and, one might add, remarkably heterogeneous, range of syntactic roles. There is a large overlap with the roles of SOMEONE, but not all the roles of SOMEONE are equally applicable to SOMETHING, and some roles of SOMETHING are not applicable to SOMEONE at all. Normally, SOMETHING doesn't occur in the roles of a psychological subject:

?This thing wants (*thinks) something.

an agent:

?This thing did something.

or an addressee:

?I said this to this thing.

but under certain circumstances it can appear (at least semi-felicitously) in all these roles. (This applies, in particular, to animals and human collectives.)

In addition, SOMETHING (thing) can occur in the role of a "patient" or a "mover":

You did this to this thing.

Something happened to this thing.

This thing moved.

It can also occur as a "subject" of evaluation, description, relation, or location:

This thing is good/bad.

This thing is big/small.

This thing is like this other thing.

This thing is under/above all these other things.

This thing is on the other side.

This thing is far (from this place).

Unlike YOU and I, but like SOMEONE, SOMETHING can also be combined with an attribute:

something good/bad (a good/bad thing)

something big/small (a big/small thing)

Furthermore, SOMETHING—like SOMEONE—can combine with a wide range of determiners (with the same allolexic restrictions as SOMEONE):

this thing; another thing (someone else); the same thing; one thing
two things; many things; few things; all things (everything)

But perhaps the most important, and unique, role of SOMETHING is that of a complement, covering the range of a "psychological complement", a "speech complement", an "action complement", and an "event complement":

I want/know/think/feel/see/hear/something.

I said something.

I did something.

Something happened to me.

4. Mental Predicates: THINK, KNOW, WANT, FEEL, SEE, HEAR

Mental predicates (THINK, KNOW, WANT, FEEL, SEE, and HEAR) combine, first of all, with "psychological subjects" (I, YOU, SOMEONE, PEOPLE):

I/you think/know/want/feel/see/hear (something).

Someone thinks/knows/wants/feels/sees/hears (something).

People think/know/want/feel/see/hear (something).

Furthermore, they all take a "psychological complement" (SOMETHING, THIS), for example:

You want something.

This person knows this.

These people feel something bad.

I see/hear something.

The range of possible "complements" is no doubt different in each case. For THINK and KNOW, the complement slot is likely to be filled by a whole proposition (e.g. "I think that . . .", "I know that . . ."). For THINK, it can also be filled by direct discourse (e.g. "I thought: gee! how strange!"). For WANT, the most likely complement probably takes the form of an "equi-clause" (e.g. "I wanted to go"), and in any case, even if the "complement" slot is filled by a "substantive" (THIS or SOMETHING), this "substantive" has to stand for a proposition (since sentences such as "I want an apple" have to be interpreted as an abbreviated form of sentences about having or getting an object, "I want to have/get an apple").

SEE differs from the other mental predicates in its ability to take SOMEONE and PEOPLE in its "complement" slot, and also to combine with a place adjunct:

I saw someone.

You saw many people.

I see someone in this place.