## Conclusion

We have now completed our survey of the landscape of meaning in language. Having acquired a basic conceptual toolkit for semantic analysis, we have looked in some detail at the principal bearers of meaning in language, namely words, at their meanings, their interrelations, how they combine, how new meanings are created, in both the short term and the long term, and how grammar contributes to (indeed, is vital to) the assembling of complex meaning structures.

Of course language is not a self-sufficient, hermetically sealed system. It has to make contact with the world in which we live, one way or another. We have accordingly looked at principles and mechanisms of reference. We have also taken note of the fact that what people say typically encodes only part of their intended message, and we have looked at the principles which enable hearers to 'flesh out' the encoded meaning to yield a much richer message.

The survey has necessarily left many details and complications unexplored, but at least we have over-flown the entire terrain, and picked out the principal landmarks.

We started out by relating the notion of meaning in language to the wider one of communication. It is important to emphasize that all the complexities and richness we have observed in connection with meaning phenomena exist/have evolved because they are essential to a communication medium which is efficient and flexible and has unlimited expressive power.

All systematic aspects of meaning contribute to efficiency in storage and use: recurrent sense relations, patterns of sense extension, compositional principles. Pragmatic principles which allow many message components to be inferred rather than being overtly encoded ensure economy in use by reducing the length of utterances.

Flexibility is ensured by the fact that new meanings can be either created in response to the fleeting demands of a particular situation (nonce readings), or permanently laid down for long-term use in response to large-scale changes in the physical, social, or conceptual environment.

A recursive syntax, together with principles of compositionality, is essential to a communication medium which has universal expressive power. Probably

few messages, if any, in the real world are conveyed without any loss occurring between the speaker's intention and the hearer's apprehension. However, the design of human language allows us to approach as nearly as is necessary to any point or area in semantic space.

Is the study of meaning in language of any practical utility? Well, yes, at least potentially. For instance, everyone concerned with the teaching of language can benefit from, on the one hand, being made aware of aspects of meaning of which they formerly only had a subliminal knowledge, and on the other hand, by acquiring an arsenal of descriptive concepts and techniques which lend discipline and precision to thinking.

A field of endeavour where lexical semantics is of potential utility is the making of dictionaries. The theoretical concerns of lexical semantics impinge on the practical concerns of lexicography at a number of points. One is in establishing criteria for sense division—at present a somewhat hit-or-miss affair, as can be seen by comparing different dictionaries. Another is in the ordering of material in articles so as to highlight relationships. Others include: the structure of definitions, establishing criteria for deciding what collocational information to include, the discrimination of near-synonyms (something current dictionaries are rather bad at), and so on.

As a final example, mention might be made of a field whose promise is yet to be realized, and that is the electronic processing of language, whether for the purpose of machine translation, designing 'intelligent' robots capable of responding to ordinary language commands, and systems whereby humans can interrogate large databases in ordinary language and receive answers likewise. Progress is unlikely on any of these fronts without a deep knowledge of how meaning works in normal human interaction, even if, in the end, successful automated systems are not merely copies of human models.

The current state of knowledge about meaning phenomena is very patchy: some areas are relatively well charted compared with others. But in all domains, serious black holes of ignorance abound. Many of the fields of uncertainty involve very fundamental issues: for instance:

- How best to represent the semantic properties of a word? Should we aim for some sort of core meaning, from which variations in context can be predicted? (No one has yet come up with a satisfactory way of doing this, although as a programme it has its attractions.) Or should we accept that any such 'core' is merely an attempted distillation from a chaotic mass of memory traces of actual usage, which is never wholly successful?
- Are there such things as conceptual primitives, semantic atoms? If so, what
  are they like, and, indeed, what are they? Is the task like the human genome
  project—almost unimaginably complex, but in principle feasible, given
  time and money, or is it fundamentally flawed?
- Progress has undoubtedly been made in the understanding of metaphor

and metonymy, yet the true secret of what makes a successful metaphor or metonym seems still to elude the grasp of researchers.

- The constraints on the possible meanings of words seem to be only partially understood.
- I have no doubt that relevance is one of the key concepts of pragmatics, but in spite of the efforts of relevance theorists, for my money, the bird of relevance is still flying free in the bush.
- Finally, in this (somewhat selective) inventory of knowledge gaps, very little has been established regarding the most fundamental question of all: how does language connect up with the things and events in the world around us? How does the whole system work?

It sometimes seems that everyone has been as it were paddling at the edge of the ocean. However, this is perhaps overly pessimistic: progress has undoubtedly been made, and will continue to be made—and the enterprise is a worthwhile one.