References


Psycholinguistics is mostly done in English. Psycholinguists in non-English-speaking countries have perforce to keep up with the current literature in English; but they do not always publish in English. English-speaking psycholinguists, however, hardly ever read anything but the literature in their own language; as a result, we know very little indeed of what our colleagues in non-English-speaking countries are doing. And we know even less if the non-English-speaking country also happens to be behind the Iron Curtain. In this volume we have a chance to look at psycholinguistics as it is practised in East Berlin; the authors of the various contributions are all affiliated with the Central Linguistics Institute of the East German Academy of Sciences, with the Humboldt University psychology department, or with hospital research departments in the city. Some of the contributions were originally prepared for a psychology symposium in 1975; the others are research reports from aphasia clinics.

The most substantial of the nine chapters is a 100-page essay by Manfred Bierwisch on the topic of language and memory. It is not a discussion of the role of memory in language behaviour, like that of Crowder (1978); rather, it is a consideration of the relationship between structural properties of language and memory storage systems, and, incidentally, between psycholinguistics and memory theory. Bierwisch rightly makes much of the (memory theorists’) distinction between semantic and episodic memory, which neatly separates the interests of the two fields — the memory theorist describes the structure and processes of
episodic memory, whereas the linguistic knowledge in which the psycholinguist is interested — including syntactic knowledge — can only be part of 'semantic' memory. He does not mention, however, the concept of levels of processing (Craik and Lockhart, 1972), which of all recent research on memory has probably had the greatest impact on psycholinguistic work. The essay ranges widely across psycholinguistic and linguistic topics, and provides a very authoritative and useful review.

Bierwisch's contribution is followed by three experimental papers. The first is a study by Klix, Kukla and Kühn in which time to produce an analogy response is measured as a function of the semantic relationship between the two members of the analogy pair. Responses which are related to the stimulus word in ways which may be expressed in terms of case — object, instrument, location etc. — are produced more rapidly than responses which are antonyms, hyponyms or superordinates of the stimulus word. Thus the analogy TEACHER : CLASSROOM; DOCTOR : ? is completed more quickly than TEACHER : MUSIC TEACHER; DOCTOR : ?. One might suspect that in the latter case the larger number of alternative responses from which to choose is responsible for the increased response time; however, the authors report that antonyms (HARD-WORKING : LAZY; SICK : ?) are among the most difficult responses of all. Unfortunately this result is only reported anecdotally; we are not shown the data.

Incomplete data presentation is also a weakness of the two following chapters, of which one, by Hoffmann, describes a series of experiments dealing with organisation in episodic memory, and the other, by Hoffmann and Klix, employs the picture verification task to look at the role of negation in sentence-picture matching and the mental representation of simple sentences. Both papers are disappointing: Hoffmann seems to feel that by arguing for a distinction between semantic and episodic memory he can make his argument also count against a particular theory of organisation within semantic memory, to wit, semantic network theory, although all specific models of semantic memory must be orthogonal to the episodic/semantic memory distinction. Hoffmann and Klix wish to claim that simple affirmative sentences describing easily visualised scenes ('The boy is catching the ball') are typically represented visually, but that a more abstract representation is demanded by any sentence containing a negative element. However their experiments fall into two groups: those on the simple SVO sentences and those on negation, which used different types of sentence. The attempt at the end of the chapter to draw the two series together in a model of the verification process is unsatisfying. Furthermore, the fit of the data to the model is achieved at the expense of allowing unmotivated omission of one
or more steps under certain conditions, and choosing for each experimental situation that path through the model which best fits the data — after the data have been gathered.

The empirical meat of the book is to be found in the aphasia papers. Egon Weigl describes some more work using his deblocking technique (Weigl and Bierwisch, 1970), in which a patient who is unable to produce a particular language behaviour becomes capable of it after hearing it demonstrated — even when the patient is unaware of the demonstration. In this instance the deblocked behaviour is object naming; patients showed a high probability of correctly naming pictures of objects they had previously been unable to name when they were shown the picture immediately after they had heard a list of words which included the name of the object or a related word (although a list of unrelated words did not produce deblocking). Thus a picture of a vase would be correctly named if preceded by 'harbour — vase — fork — sauce — lamb' or 'harbour — flowers — fork — sauce — lamb'. The most interesting case is surely the case in which the preceding list contains not the target name but only a related word. Weigl believes that it is the connection between sound and meaning in the lexical entry for the particular word which has been blocked, although the representation of the words in memory is otherwise intact; it is easy to see how hearing the target name itself could be sufficient to reinstate this connection once the meaning is activated by the picture, but it is less easy to comprehend how presentation of a related word exercises a comparable influence on the representation of the target words' sound.

Irina Weigl describes the performance on a variety of naming and repetition tasks by a group of aphasics with differing deficits — some productive, some receptive, some mixed. Wurzel and Böttcher show that both productive and receptive aphasics have trouble with both producing and understanding words with consonant clusters, and the more complex the cluster, the greater the patients’ difficulty. Increased word length is not what causes the problem, because the same patients perform well in comparison on nominal compounds which were longer than any of the words in the consonant cluster group. Böttcher also compares productive with receptive aphasics, on naming and repetition tasks, and concludes that both groups show similarly impaired performance when dealing with closed class (grammatical) rather than open class (lexical) words, and with affixed rather than morphologically simple words. In the final chapter, Metze and Steingart compare a group of deaf children learning finger-spelling with a group of hearing children on word repetition and naming, and find the pattern of response to be highly similar across the two groups; this the authors take to indicate that the same underlying linguistic
capacities are being tapped despite the fact that the tasks involve different modalities in the deaf and hearing subjects respectively.

A common thread runs through the aphasia papers: language competence is not destroyed in aphasia, since performance can be sometimes unimpaired, and can be restored by deblocking techniques; yet nevertheless the nature of the aphasic deficit is not peripheral but central. All the studies found the same kind of impairment of performance in productive and in receptive aphasics. Until recently, Broca’s aphasics were assumed to exhibit agrammatism in production only, and to have relatively intact comprehension. However it now seems that the impression of unimpaired comprehension is achieved by dint of greater than usual reliance on strategies of contextual inference; with sensitive enough measurement, these patients show agrammatism in comprehension as well (Caramazza and Berndt, 1978; Zurif and Blumstein, 1978). In other words, agrammatism in Broca’s aphasia is a central deficit. On the evidence of the papers in this book, it would seem that we ought to look for equivalent centrality of deficit in receptive aphasia.

The picture that we get from this volume is that our colleagues in East Berlin are doing very interesting research in linguistics and in aphasia, but rather disappointing psycholinguistics. Whether or not this is the whole story only increased acquaintance with their work will tell us. A revised edition of this book is to be issued by Reidel Publishing Co. in English, and it is to be hoped that English-speaking psycholinguists will in future have — and take — more opportunities of access to work in non-English-speaking lands.

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References


