

## Research in the supporting sciences

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### LINGUISTIC THEORY

**84-93 Bierwisch, Manfred.** Formal and lexical semantics. *Linguistische Berichte* (Wiesbaden, FRG), **80** (1982), 3-17.

Semantics can be regarded as concerning the interface between two mental systems: the linguistic and the conceptual. For each utterance several levels of representation must be specified: phonetic, morphosyntactic (equivalent to Chomsky's S-structure) and semantic (an elaboration of Chomsky's LF), these three being part of the language system. An utterance also has two representations in the conceptual system: m, or conceptual representation, and ct, a conceptual context type (individuals, kinds, properties, etc.). Concepts are not only highly structured themselves but relate to lexical items in complex ways; 'symphony', for example, may denote a range of concepts of distinct types. In addition, there is no one-to-one relationship between semantic and conceptual primitives. Thematic relations substantially determine the combinatorial potential of lexical items and thus mediate between their external and internal compositionality. Truth, reference, and logical relations should be defined in terms of conceptual, not semantic representations and, as a result, the meaning of an utterance cannot be identified with its semantic representation.

**84-94 Crawford, T. D.** (University Coll., Cardiff). Defining 'Basic Color Term'. *Anthropological Linguistics* (Bloomington, Indiana), **24**, 3 (1983), 338-43.

The eight criteria for determining a basic colour term cited by Berlin and Kay in their book *Basic Color Terms* are discussed and criticised. There are faults and vaguenesses apparent in all eight. Those which refer to non-semantic formal or historical factors should be discarded altogether. A revised definition is offered which states that a basic colour term (1) occurs in the idiolects of all informants, (2) has stability of reference across informants and across occasions of use, (3) is not restricted in application to a narrow class of objects and (4) is such that its signification is not included in that of any other colour term.

**84-95 Hajičová, Eva and Vrbová, Jarka** (U. Karlovy, Prague). On the salience of the elements of the stock of shared knowledge. *Folia Linguistica* (The Hague), **15**, 3/4 (1981), 291-301.

The following interrelations between the changes in activation of the elements of the stock of knowledge shared by the speaker and the hearer and the reflection of these changes in the linguistic rendering can be hypothesised and suggested for future research: (a) an activated element of the stock of shared knowledge is referred to by a weak (unstressed) pronoun: the degree of activation is preserved; (b) an activated element of the stock of shared knowledge is referred to by a contextually bound definite

NP: the activation is supported and thus increased a little; (c) an object is mentioned in the focus part of the sentence by an NP: the item receives a high degree of activation, higher than that of other items already included in the activated part of the stock; (d) an activated element is not mentioned in the given sentence: the activation fades away; (e) if an object that is not identical, but only related to the activated one, is mentioned in a sentence, the activation of the original object fades only moderately – not so much as in the situation mentioned in (d).

**84–96 Manes, Joan** (U. of Virginia). Ways of defining: folk definitions and the study of semantics. *Forum Linguisticum* (Lake Bluff, Ill), **5**, 2 (1980), 122–39.

Folk definitions can be studied using two types of data: ‘list’ definitions, elicited explicitly from native speakers, and contextualised definitions, occurring spontaneously in conversation. Casagrande and Hale, in their study of Papago folk definitions, enumerate 13 types of semantic relationship used by speakers in providing list definitions; these apply well to the American list definitions collected by Manes but account for only 55 per cent of the contextualised definitions. The total American corpus displays a wide range of defining techniques, which can be grouped into 12 major types, among the commonest being situational (the speaker gives a description of the circumstances in which the word can be used), similitude (the item is defined as similar in meaning to some other item), and functional. There is a semantic equivalence between two of the strategies: ‘synonymy’ and ‘situational’. The Papago and American data show many similarities; in particular, words of certain classes tend to be defined using the same techniques in both cultures.

**84–97 Molino, Jean** (U. of Fez). Le nom propre dans la langue. [The proper noun in language.] *Langages* (Paris), **66** (1982), 5–20.

Within a general semiological framework, a synthesis of linguistic, logico-philosophical, anthropological and cognitive points of view is offered. The definition of all linguistic categories is fuzzy but the proper name may be taken as the prototype of all proper nouns. No general phonological or morphosyntactic criteria can identify them. Semantic studies speak of unique reference, continuity of reference, classificatory reference (e.g. *Fido*, a dog), equatability with a definite description, a possible affective component (e.g. proper names in literature). Anthropology refers to pragmatic use (individual reference, baptismal naming and vocative appellation) and function (identification, classification and signification).

The proper noun is seen as sharing characteristics of deictic categories, which deal with the self, here and now, and of representational categories relating to the field of human production, symbolic and material.

**84–98 Mounin, Georges**. L'intention de communication. [Communicative intention.] *Linguistique* (Paris), **18**, 2 (1982), 3–19.

The distinction between (voluntary) *signal* of communicative intention and (involuntary) *indicator* is not without problems: the two are mixed in speech and identification by the analyst may appear to be subjective. Is there no formal indication of

## 56 *Research in the supporting sciences*

communicative intention, a third component in the signifier–signified relationship? The distinction between what is artificial and natural is socially learnt for language, as for every aspect of human knowledge; communicative intention need only be signalled for the onset of each situation-type and need not be part of every signal in itself. The distinction is crucial for linguists, semiologists and those seeking to distinguish between human and animal communication.

**84–99 Normand, Claudine.** Une version française du structuralisme linguistique (des années 30 à 1950). [A French version of structural linguistics from 1930–50.] *LINX* (Paris), 6 (1982), 11–75.

As can be seen in the *Bulletin de la Société de Linguistique de Paris*, there was a gradual assimilation of structural notions over the years 1937 to 1950. From 1937 Prague-school phonology was seen as a useful adjunct to the prevailing comparativism, while glossematics was viewed with suspicion as being too abstract. At the same time comparativist interests shifted from the historical to the dialectal and geographical. The year 1945 marks a turning-point, with a marked American influence (of Sapir rather than Bloomfield for the comparativists) and a renewed interest in Saussurean structuralism leading to the formulation of a general linguistics, in which structure is associated with function and the study of speech. Comparativism moved from genealogical to typological preoccupations and from general phonological to general grammatical categories. [This survey, whose third part is not printed, is supported by quotations from prominent French scholars of the period.]

**84–100 Wiese, Richard.** Remarks on modularity in cognitive theories of language. *Linguistische Berichte* (Weisbaden, FRG), 80 (1982), 18–31.

A notion of modularity that takes modules as identifiable knowledge sources is a basic element of cognitive theories of language. Modular systems are generally considered to require (1) specific formal principles for each module and (2) a unidirectional flow of information from one module to another. These constraints are critically discussed with reference to the Government–Binding theory of generative grammar and various artificial intelligence models of language processing. In Government–Binding theory, unifying principles such as MOVE- $\alpha$  and the projection principle considerably weaken (1). This, and facts like the lack of clear correspondence between the subtheories of control, case, binding, government, and so on, and the components of grammar (syntax, lexicon, phonetic form and logical form) may lead us to doubt claims that generative grammar is internally modular. As far as (2) is concerned, it is argued that models of language processing which are interactive (i.e. not unidirectional) can be considered modular if it is recognised that these models are constantly changing hierarchical structures.

## PHONETICS AND PHONOLOGY

**84-101 Filipović, Rudolf** (U. of Zagreb). Phonologisation and activation of latent phonemes in linguistic borrowing. *Journal of the International Phonetic Association* (London), **12** (1982), 36–47.

A study of 20 European languages that have borrowed lexical items from English shows that 'importation' of phonemes is to be interpreted as a process occurring within the closed phonological system of the borrowing language in response to a linguistic need (*sc.* to borrow). Phonologisation (Jakobson) of either or both of two sorts is found: an existing allophone is given phonemic status (e.g. French [ŋ] > /ŋ/), or a latent phoneme is activated where there is a gap in the existing system (e.g. the Italian voiced fricative series /v/, /z/ is completed by /ʒ/ to parallel the corresponding voiceless series /f/, /s/, /ʃ/). Such an account explains the selectivity of so-called 'phonemic importation'.

**84-102 Groc, B. and Tuffelli, D.** (Lab. de la Communication Parlée, ENSERG, Grenoble). Introduction aux systèmes de reconnaissance de la parole. [Introduction to speech recognition systems.] *Bulletin de l'Institut de Phonétique de Grenoble* (Grenoble), **10/11** (1981/2), 13–60.

A survey of speech recognition systems is presented, with details of the ENSERG system. In most systems there are two modules: a word-recognition module (based on the recognition of phonemes or on global acoustic comparison) feeds a linguistic analysis module (holding a representation of syntactic, semantic and possibly pragmatic knowledge) with lexical hypotheses (which may be limited by linguistic constraints on contextual combination supplied by the linguistic analysis module). Either module may be a sub-programme of the other, or both may be controlled by a master programme. The signal may be processed left-to-right or by islands of probability. Two strategies of resolution may be distinguished: best first and beam-search. [Assessment of various methods. Country-by-country account of developed and developing systems.] The ENSERG system is a left-to-right processing system with the possibility of using syntactic, semantic and pragmatic constraints, based on the matching of acoustic samples and beam search. Syntactico-semantic knowledge is represented in network form, independently of the acoustic networks.

**84-103 Hess, Wolfgang J.** (Tech. U. of Munich, FRG). Algorithms and devices for pitch determination of speech signals. *Phonetica* (Basel), **39**, 4/5 (1982), 219–40.

In this paper the various pitch determination methods and algorithms (PDAs) are grouped into two major classes: time-domain PDAs and short-term analysis PDAs. The short-term analysis PDAs leave the signal domain by a short-term transformation. They supply a sequence of average pitch estimates from consecutive frames. The individual algorithm is characterised by the short-term transform it applies. The time-domain methods, on the other hand, track the signal period by period. Extraction and isolation of the fundamental harmonic, and investigation of the temporal signal

## 58 *Research in the supporting sciences*

structure are the two extremes between which most of these PDAs are found. After the review of these principles the paper finally discusses different application-oriented aspects, i.e. the role of the PDA in phonetics, education, phoniatrics, and speech communication systems.

**84-104 Ladefoged, Peter** (U. of California, Los Angeles). The linguistic use of different phonation types. *UCLA Working Papers in Phonetics* (Los Angeles, USA), **54** (1982), 28-39.

Certain languages and dialects differentiate word meanings by means of voice qualities, many of which are categorised as 'pathological' among speakers of more familiar languages: e.g. voicing with raised larynx, murmur (sometimes with contrastive degrees of breathiness), laryngealisation and 'stød'. Instrumental evidence of the six contrasting phonation types found in !Xóõ (S. African Bushmen) is given; vowels are either voiced or murmured, each type being pronounced plain, laryngealised or strident (epiglottalised). Speech scientists and pathologists would benefit from studying such functionally controllable voice qualities.

**84-105 Lehiste, Ilse** (Ohio State U.). Some phonetic characteristics of discourse. *Studia Linguistica* (Lund, Sweden), **36**, 2 (1982), 117-30.

Three experiments are described. For English the 'same' read sentence is longer in isolation than within a paragraph and longer in paragraph-final than in initial or medial position. Listeners could frequently identify paragraph-initial sentences presented out of context, apparently from the cue of a high fundamental frequency peak. When listening to spontaneous speech whose segmental content was obscured by 'spectral inversion', listeners relied on pause-length and low fundamental frequency as cues to sentence and paragraph boundaries, but took into account syntactic and semantic information and the initial words of following sentences when judging boundaries in unprocessed recordings. Paragraph boundaries were distinguished from sentence boundaries in segmentally obscured speech by the greater degree of pre-boundary lengthening and of pause-length and the lack of pharyngealisation (found at many sentence boundaries). These experiments indicate the perceptual reality of supra-sentential phonological units (which do not necessarily coincide with grammatical units). Estonian, where duration plays a lexically distinctive role, appears not to rely on that parameter in the same way as English does to signal discourse boundaries.

**84-106 Napoli, Donna Jo** (U. of Michigan). Initial material deletion in English. *Glossa* (Burnaby, BC), **16**, 1 (1982), 85-111.

English has phonological rules which delete initial lightly stressed material of words and phrases. In this article it is shown that a similar rule exists at the sentence level, deleting strings which may consist of one or more words, parts of words and combinations of these. An argument that the missing string has a phonetic matrix is offered, showing that the sentence level rule involves deletion and not interpretation. Then evidence of the phonological as opposed to syntactic nature of the rule is presented. This work supports the idea that stress rules have varying domains, it calls

for a new ordering of the phonology with respect to stylistic rules in the Extended Standard Theory, and it offers evidence for choosing between alternative theories of anaphora.

**84–107 Pakosz, Maciej.** Prosodic introduction of thematic expressions in English. *Linguistics* (The Hague), **19**, 9/10 (1981), 969–86.

The paper deals with the intonational characteristics of thematic expressions which have generally been regarded as ‘weak’ prosodically. It is shown that themes may be implemented with heavily accented tonic syllables, traditionally believed to be a feature of the thematic part of sentences, provided their pitch configurations meet certain requirements. Also considered is the prosodic manifestation of such categories as given versus new themes, marked versus neutral themes, and emphatic as opposed to contrastive thematisation. The paper concludes with the examination of various types of theme-selecting constructions with the view of finding any possible differential prosodic interpretation in this area.

**84–108 Thorsen, Nina** (U. of Copenhagen). On the variability in  $F_0$  patterning and the function of  $F_0$  timing in languages where pitch cues stress. *Phonetica* (Basle), **39**, 4/5 (1982), 302–16.

The basic property of pitch as a cue to linguistic stress is fundamental frequency ( $F_0$ ) *change*. That leaves room for a lot of variation: in the direction of the change, the amount of change, and its exact co-ordination with the stressed syllable. Examples (from the literature) from a number of languages and dialects attest that they do indeed exhibit quite striking differences in the stress/ $F_0$  relationship. The decisiveness, under certain circumstances, of the timing of  $F_0$  events is illustrated by the results of a pilot experiment with a disyllabic Danish word: the location of a two-semitone rise from the first to the second syllable – before or after the intervocalic sonorant consonant – will shift listeners’ location of the stress.

## SOCIOLINGUISTICS

**84–109 Le Page, R. B.** (U. of York) and **Tabouret-Keller, A.** (U. Louis Pasteur, Strasbourg). Models and stereotypes of ethnicity and of language. *Journal of Multilingual and Multicultural Development* (Clevedon, Avon), **3**, 3 (1982), 161–92.

Stereotypes concerning both ‘race’ and ‘language’ are examined as to the bases upon which they rest both in popular thinking and in classical anthropology and linguistics, and contrasted with approaches to human genetic and behavioural clustering and differentiation forced upon us by a careful examination of the implications of polymorphism in genetics and a study of the data of very diffuse Creole/contact situations in linguistics and emergent social identities. Extrapolation from these particular situations to all language suggests a need for fresh models to accommodate a dynamic relationship between social stereotypes and ethnic and linguistic focusing.

**84-110 Platt, John T. and Lian, Ho Mian** (Monash U., Australia). A case of language indigenisation: some features of colloquial Singapore English. *Journal of Multilingual and Multicultural Development* (Clevedon, Avon), **3**, 4 (1982), 267-76.

The process of language nativisation or indigenisation implies the adaptation of the language to fit the communicative needs of those adopting it. This applies particularly to the use of the language in the more informal speech domains, leading to the development of a local, colloquial variety. Such nativisation involves more than the use of lexical items from local languages or the formation of calques in the nativised variety. It involves more than simplification of the adopted language. In a situation such as Singapore, where the status of English is high and where its functions have increased rapidly with the move towards English-medium education, several types of convergence have occurred in the development of Colloquial Singapore English, including the use of Chinese particles, an aspectual rather than a tense system, Chinese-type question tagging and an existential-locative verb, *got*. It is suggested that it is this distinctively Singaporean, colloquial nativised variety of English which serves increasingly as a pan-ethnic lingua franca.

**84-111 Ryan, Ellen Bouchard and Bulik, Cynthia M.** (U. of Notre Dame). Evaluations of middle-class and lower-class speakers of standard American and German-accented English. *Journal of Language and Social Psychology* (Clevedon, Avon), **1**, 1 (1982), 51-61.

Male speakers (aged 45-60) of either standard or German-accented American English were presented to middle-class Anglo-American undergraduates as individuals belonging to either the lower or middle class. The respondents rated speakers on status, solidarity, and speech dimensions and also completed social distance and belief similarity items. The non-standard speech style affected listener evaluations negatively on all measures while social class only affected status and speech intelligibility ratings. The lack of predicted interactions indicated that individuals speaking with a German accent were neither more strongly downgraded in the lower-class condition nor upgraded in the middle-class condition.

## PSYCHOLINGUISTICS

**84-112 Clark, Eve V. and Hecht, Barbara Frant** (Stanford U.). Learning to coin agent and instrument nouns. *Cognition* (Lausanne), **12**, 1 (1982), 1-24.

In this study, the authors examine how children acquired productive control over the suffix *-er* in coining agent and instrument nouns in English. Forty-eight children, aged three to six, were asked to segment and produce novel agent and instrument nouns. In comprehension, all could identify the verb base in nouns like *kicker* and otherwise showed that they understood both verb and suffix. In production, however, the children fell into three groups: (1) the youngest children made only inconsistent use of *-er* and relied on simple compounds, especially for agents, and on familiar words,

especially for instruments; (2) slightly older children began to make consistent use of *-er*, but only for one of its meanings, usually the agentive one; and (3) the oldest children produced *-er* consistently for both agents and instruments. Three principles are proposed to account for this sequence of acquisition: (1) the principle of semantic transparency guides the child by giving priority (*a*) to familiar words in constructing new word-forms and (*b*) to the use of one form for one meaning. (2) The principle of productivity allows the child to identify more specialised word-formation devices to convey particular meanings. (3) The principle of conventionality gives priority to conventional forms over other forms currently in the child's repertoire. These three principles interact to predict a particular course of acquisition for the suffix *-er* in the coinage of agent and instrument nouns.

**84-113 Elio, Renée** (Carnegie-Mellon U.) and **Healy, Alice F.** (U. of Colorado). Deep structure syntactic relations: to-be-retrieved information and retrieval cues in prompted sentence recall. *Language and Speech* (Hampton Hill, Mddx), 25, 3 (1982), 221-42.

The saliency of deep-structure syntactic relations in the memory representation of sentences was investigated using two measures of saliency: accessibility as to-be-recalled information and ability to access other sentence information. A cued-recall task employed sentences in which the semantic, deep-structure syntactic, and surface-structure syntactic relations were varied orthogonally across target nouns. In one condition, the target noun served as the retrieval cue for the rest of the sentence, and in the second condition, all the words in the sentence excluding the target noun were used as a retrieval cue for the target noun. When the sentence served as the recall cue, the surface-structure object of the preposition was better recalled than the surface-structure subject. When the target noun served as the retrieval cue, the surface-structure subject was a better recall cue than the surface-structure object of the preposition. There was no significant difference between the deep-structure subject and deep-structure object of the preposition either in their retrievability given the sentence as a cue or in their ability to cue recall of the sentence. There was a small advantage of experiencer over goal under each of these cued-recall methods. The asymmetrical aspect of the saliency of the surface-structure grammatical relations was related to general methodological issues in the attempts to establish psychological differences between grammatical relations. The finding of no effect of syntactic deep structure was taken as evidence against the psychological saliency of this level of language.

**84-114 Genesee, Fred** (McGill U.) and **Bourhis, Richard Y.** (McMaster U.). The social psychological significance of code-switching in cross-cultural communication. *Journal of Language and Social Psychology* (Clevedon, Avon), 1, 1 (1982), 1-27.

Four studies were carried out to explore observers' evaluative reactions to bilingual code switching as a function of four factors: situational norms, sociocultural status of the language, in-group favouritism, and interpersonal speech accommodation. English and French subjects gave evaluative reactions to code switching by English-

## 62 *Research in the supporting sciences*

and French-speaking Canadian actors who were depicted interacting in the roles of a salesman and a customer. Four different patterns of code switching, consisting of three or four speaker turns each, were depicted in each study. Subjects' reactions to the speakers' language choices were elicited after each turn. The major findings to emerge were (a) there was a significant shift in the basis of the subjects' evaluations from primarily situational norms to interpersonal accommodation; (b) early language choices during the interactions had significant effects on reactions to later language choices; (c) the impact of the situational norms was reinforced when they were concordant with the sociocultural status of the actors but mitigated when they were discordant; and (d) both English and French Canadian subjects expressed favouritism towards in-group language choices; but this was especially true among the English subjects. It is concluded that the social psychological significance of code switching is both dynamic and multiply determined; a tentative empirical model integrating the results is outlined.

**84-115 Haberlandt, Karl and Bingham, Geoffrey** (Trinity Coll., Hartford, CT). The role of scripts in the comprehension and retention of texts. *Text* (Amsterdam), 2, 1/3 (1982), 29-46.

Scripts are predetermined, stereotyped sequences of actions that define well known situations. Three aspects of the script construct are considered. (1) The contribution of scripts to the connectedness among adjacent sentences is discussed. (2) Research generated by the script concept in the area of text recall and text recognition is reviewed. This research suggests that the structural and processing characteristics of scripts are similar to those of such other memory units as propositions and schemata. (3) Script-mediated facilitation in reading comprehension is treated and facilitation results obtained in a priming experiment are presented. In this experiment subjects read a sequence of sentences, one sentence at a time, and judged each sentence as sensible or not. Both the speed and accuracy of judging a sensible sentence were facilitated when it was preceded by a sentence derived from the same rather than from a different script. These results are accounted for by assuming that subjects have instantiated the script elicited by the preceding sentence and that this benefits the processing of the related target sentence. Several questions on the structure of scripts and on script instantiation are raised.

**84-116 Hamers, Josiane F.** (U. Laval, Quebec) and **Blanc, Michel** (Birkbeck Coll., U. of London). Towards a social-psychological model of bilingual development. *Journal of Language and Social Psychology* (Clevedon, Avon), 1, 1 (1982), 29-49.

A social psychological model for the development of bilingualism in the young child is proposed, covering all typical cases of bilingual development. Central to the proposed model are the valorisation mechanisms which the child develops through her/his own system of social networks during early childhood as well as the social psychological mechanisms which develop consequently.

Taking as a starting point a general theoretical approach to language development,

the model attempts to take into account the empirical evidence of the social, social psychological, linguistic and cognitive aspects of bilingual development. In the second part of the paper, different outcomes of early bilingual development are discussed in the light of the model and an attempt is made to define the conditions that are necessary in order for the child to develop a harmonious type of bilingualism as well as those that might lead to an impairment of the cognitive development of the bilingual child. An important factor is that both languages should be valued and used in the child's community, another that both should be internalised as valuable aspects of the child's personal identity.

**84-117 Lebrun, Yvan.** L'aphasie chez les polyglottes. [Aphasia in multilingual speakers.] *Linguistique* (Paris), **18**, 1 (1982), 129-44.

When multilingual speakers receive a brain injury their command of different languages may not be affected equally. Ribot's law of regression of 1881 by which old knowledge resists injury better than new knowledge must be qualified. Various studies are cited, showing that sometimes an acquired language is recovered sooner than the mother tongue and that affective factors may intervene. Comprehension and production, speaking and translating ability may be affected differently. It seems that language behaviour is unpredictable in the days or weeks after the onset of aphasia, but that long-term recovery is most frequent in the language used around the patient during his convalescence and for his stimulation. This often corresponds to his mother tongue or the language commonly used before injury.

**84-118 Levin, Harry and Hunter, Wendy A.** (Cornell U.). Children's use of a social speech register: age and sex differences. *Journal of Language and Social Psychology* (Clevedon, Avon), **1**, 1 (1982), 63-72.

The purpose of this study was to trace the changes in a social speech register, talking to an animal, as used by children between the ages of five and 12 years. Each child's speech was recorded while she/he played alone with a rabbit. There were no changes in the nature of such speech between the age groups. However, boys and girls spoke differently to the rabbit. Boys used simpler speech, more imperatives and more annoyed utterances. Girls were more affectionate and asked more questions. Girls were less self-conscious during the task. Girls' intonations were more expressive as measured by ratings and by the variability of the fundamental frequencies of their voices. A comparison of results on baby-talk with the characteristics of animal-talk indicated that the two registers are similar.

**84-119 McConkey, Roy** (St Michael's House, Dublin) and others. Assessing mentally handicapped children's use of sentence structuring rules. *First Language* (Chalfont St Giles, Bucks), **3**, 3 (1982), 201-9.

Mentally handicapped children's use of two-word sentence rules was examined in three different contexts (involving pictorial and object material) and on two separate occasions (4 weeks apart). 'Action + Object' sentences were the most frequently given throughout and were elicited more often with objects than with pictures. However,

## 64 *Research in the supporting sciences*

the children showed little consistency in their sentence usage across the three contexts and over the two sessions. Hence this study highlights the need for language assessments to be done within a range of contexts and on a repeated basis in order to obtain accurate information on which to base teaching programmes and to evaluate their effectiveness.

**84-120 Marantz, Alec** (Harvard U. Soc. of Fellows). On the acquisition of grammatical relations. *Linguistische Berichte* (Wiesbaden, FRG), **80** (1982), 32-69.

In two related experiments, 3-, 4-, and 5-year-old English-speaking children were taught to use novel (made-up) verbs to describe observed scenes. The verbs differed in the structural expression of their semantic arguments; some, for example, expressed the agent of the action they described preverbally and the patient postverbally (*Larry is moaking the book* meaning Larry is pounding a book with his elbow) while some expressed the patient preverbally and the agent postverbally (*The book is puming Larry* meaning Larry is lifting a book up and down on his knee). The 3- and 4-year-olds had less difficulty learning verbs for which the correspondences between semantic role and structural position match those for a good portion of English verbs (e.g. *moak* in the example above) than other verbs (e.g. *pume* in the example above), displaying a dependence on grammatical rules which connect semantic relations directly to structural positions. The 5-year-olds, on the other hand, learned to use all the experimental verbs with equal ease. It is argued that the results indicate that children acquire grammatical relations around age five to use in their grammars as intermediaries between semantic relations and their structural expressions. The results hold implications for linguistic theory, arguing against theories like (early) Case Grammar that try to do without grammatical relations and against theories like Relational Grammar that try to ground grammatical relations in semantics in certain ways.

**84-121 Martinez, Joseph G. R. and Johnson, Peder J.** (U. of New Mexico). An analysis of reading proficiency and its relationship to complete and partial report performance. *Reading Research Quarterly* (Newark, Del), **18**, 1 (1982), 105-22.

Average and above-average adult readers were visually presented with sets of unrelated letters for brief durations under complete report and partial report conditions. The results showed that the highly skilled readers were superior in their performance on the complete report and the partial report delay-of-mask task. Complete report performance was facilitated by the inclusion of vowels in the letter strings, but the inclusion of vowels failed to interact with reading ability. Performance on the delay-of-mask task was dependent upon the rate at which the letters could be read from the iconic representation prior to the occurrence of the mask and taken as a measure of encoding speed. Two additional partial report tasks, delay-of-marker and selective readout, failed to distinguish between the reading ability groups. A 0.63 correlation between complete report and delay-of-mask performance indicated that both tasks were partially dependent upon encoding speed. When these two measures were combined in a regression analysis, they accounted for 80 per cent of the variance

in reading performance. The findings were interpreted as supporting the notion that reading proficiency is highly dependent upon speed of accessing codes in memory.

**84-122 Nwokah, Evangeline E.** (U. of Nigeria). 'Once upon a time' – aspects of story-telling in normal and retarded children. *Language and Speech* (Hampton Hill, Mddx), 25, 3 (1982), 293-8.

Previous studies of the language of retarded children have indicated that their understanding and use of language is poor when compared with their mental age and that they are more preoccupied with the 'here and now' rather than past or future events. Fifty 4-year-olds, 50 5-year-olds and 50 ESN(M) (moderately educationally subnormal) children were presented with a story-telling task using a book of pictures. A linguistic analysis was made of each story using a clausal analysis. The types of clauses, number of clauses, use of the past tense, and use of conjunctions were assessed. A longitudinal study of 12 of the ESN(M) and 12 of the normal children was also carried out over one year. The longitudinal study showed a rapid increase in the use of the past tense in the normal children only, and that the length of story and use of tense were far less consistent over time in individual ESN(M) children than in the normal children. There was no significant difference between the ESN(M) and normal children of the same mental age in the cross-sectional study on any of the variables except in the use of conjunctions. It is suggested that there appears to be a difference in approach to language use that may reflect both social class and a slower developmental rate.

**84-123 Reiser, Brian J. and Black, John B.** Processing and structural models of comprehension. *Text* (Amsterdam), 2, 1/3 (1982), 225-52.

This paper presents a view of text comprehension based on considerations of the 'functional significance' of a memory representation in understanding and retrieval processes. A text comprehension model should consist of (1) memory structures that can account for the inferencing necessary to construct a coherent representation of a text, and (2) a specification of the retrieval processes that operate on the representation to recover information. This approach will lead to a better explanation of language comprehension than the attempt to propose representations to describe the structure of a text. The knowledge structures used to understand a text will also function as retrieval structures. The importance of verifying a memory representation in a variety of processing tasks is discussed, and results from a number of comprehension and memory studies are presented that support the use of knowledge structures based on causal connections of actions, goals, plans, and thematic relationships. Results also support a retrieval mechanism that accesses the high-level structures that organise the information in the text, and searches the causally central aspects of the representation. Comprehension of narrative and expository texts may involve different types of knowledge structures, and different processing mechanisms.

**84-124 Robinson, E. J. and Robinson, W. P.** (U. of Bristol). Knowing when you don't know enough: children's judgements about ambiguous information. *Cognition* (Lausanne), **12**, 3 (1982), 267-80.

Two experiments were carried out to find out whether young children's failure to realise when messages are ambiguous is specific to verbally transmitted information about a person's intended meaning. In Experiment 1, children judged whether they had been told/shown enough to identify which one of a set of cards the experimenter had chosen. In one game the experimenter gave verbal messages about her chosen cards, and in a second game she gave visual messages. With ambiguous visual messages, relevant parts of cards were physically covered. It was expected that that would make it more obvious that the speaker's intended meaning was not being fully conveyed. No difference was found between verbal and visual conditions: correct judgements about message ambiguity occurred with the same frequency in both.

In Experiment 2, children judged in one game whether they had been told enough about the experimenter's chosen card, as in Experiment 1. In a second game, visual information about a card was not conveyed by the experimenter. Rather, the child operated a pointer, set in a disc with windows, beneath which lay cards. The child judged whether the window showed enough for him/her to tell which card the pointer indicated. Again, correct judgements about ambiguity occurred with the same frequency in both games.

The results implied that children's failure to realise when verbal messages are ambiguous is but one aspect of a more general failure to realise when one has insufficient information at one's disposal to guarantee a correct interpretation of what the world is like.

**84-125 Rondal, J. A.** (U. of Liège.) Une étude longitudinale des répétitions spontanées dans l'acquisition du langage. [Spontaneous repetition in language acquisition: longitudinal study.] *Langage et l'Homme* (Paris), **50** (1982), 12-24.

Studies of induced repetition of language by young children, and studies, fewer in number, of spontaneous repetition, all indicate that children differ widely in their imitation of adult language. They also show the selective nature of children's imitation of what they have heard; young children do not parrot blindly. Repetition peaks around 19 or 20 months.

Spontaneous repetitions of his parents' language by the author's own child between the ages of 23 and 34 months were carefully noted. Nouns and verbs predominated in the sample and the length of the repetitions increased with the child's age. The relevance of studies of language imitation to understanding the acquisition of language by young children was confirmed, as was the grammatical kinship existing between imitation and spontaneous utterances.

**84-126 Slobin, Dan I.** (U. of California at Berkeley) and **Bever, Thomas G.** (Columbia U.). Children use canonical sentence schemas: a crosslinguistic study of word order and inflections. *Cognition* (Lausanne), **12**, 3 (1982), 229-65.

It is proposed that children construct a canonical sentence schema as a preliminary organising structure for language behaviour. The canonical sentence embodies the

typical features of complete clauses in the input language, and serves as a framework for the application of productive and perceptual strategies. The canonical sentence schema offers a functional explanation of word-order and inflectional strategies based on the child's attempts to quickly master basic communication skills in his or her language. This research explores sensitivity to the canonical sentence form and to word-order and inflectional perceptual strategies for comprehending simple transitive sentences in monolingual children aged 2;0 to 4;4 in four languages: English (ordered, uninflectional), Italian (weakly ordered, weakly inflectional), Serbo-Croatian (weakly ordered, inflectional), Turkish (minimally ordered, inflectional). The results show that children fail to respond systematically to sequences that violate the canonical sentence form of their particular language. They develop distinct word-order and inflectional strategies appropriate to the regularities of their language. The early behavioural emergence of linguistically appropriate canonical sentences and processing strategies suggests a behavioural foundation for linguistic constraints on the surface form of sentences.

**84–127 Stachowiak, Franz-Josef.** Haben Wortbedeutungen eine gesonderte mentale Repräsentation gegenüber dem Weltwissen? – Neurolinguistische Überlegungen. [Do word meanings have a separate mental representation for knowledge of the world? – Neurolinguistic considerations.] *Linguistische Berichte* (Wiesbaden, FRG), **79** (1982), 12–29.

Linguists generally make a distinction between knowledge of the semantic structure of a language and knowledge of the world. The question whether these two types of knowledge have a separate mental representation is investigated with evidence from aphasia. Previous experiments suggest that aphasic patients may have more difficulty distinguishing between word meanings than between their referents, implying that linguistic information is separately stored. The present experiment uses proper nouns, which are assumed to have reference but no linguistic meaning as such, and the results suggest that while they are more easily forgotten than nouns with lexical significance, they are subject to paraphrase and are not semantically empty. Though it is only possible to interpret this as evidence for a separate representation for semantic structure if the aphasic disturbance is one of storage rather than merely access, and if the proper nouns are used in predication rather than purely referentially, it is concluded that there is some reason to believe that under such circumstances the semantic information is separately represented.

**84–128 Sulzby, Elizabeth and Otto, Beverly** (Northwestern U.). 'Text' as an object of metalinguistic knowledge: a study in literacy development. *First Language* (Chalfont St Giles, Bucks), **3**, 3 (1982), 181–99.

Signs of literacy appear in behaviours of young children reared in a literate culture long before they are reading and writing conventionally. In this article, children's abilities to create 'text' are investigated through data from longitudinal studies of literacy acquisition. Two types of tasks were used: story dictation and storybook 'readings'. Speech and non-verbal behaviours were examined for indications that

## 68 *Research in the supporting sciences*

children were able to separate their speech utterances under these conditions into two categories: a textual entity and comments referring to or separate from that entity. Two scales for judging the quality of the created text were presented and bases for judgements about non-text utterances were described. Results indicated that as children increase in emergent literacy, their speech utterances can be judged to fall into these two categories. Children also increase in ability to refer to written texts and textual speech through metalinguistic labels and indirect linguistic means. The ability to create a 'text' and to treat it as an object of knowledge was suggested to be part of more general literacy development of young children reared in a literate culture.

**84–129 Titone, Renzo.** Psycholinguistic variables of child bilingualism: cognition and personality development. *Canadian Modern Language Review* (Toronto), **39**, 2 (1983), 171–81.

A seven-year research project with bilingual children living in Rome has aimed at controlling both the linguistic-cognitive development and personality growth of young children (age 0;8–7;5, 8;6–10;6). The project branched off into two levels of research: (1) case studies of a few naturally bilingual children (speaking Italian and English, Italian and French, Italian and German) in order to detect personality traits present from birth and concomitant with bilingual development; (2) studies of about 200 primary-school children, both bilingual and monolingual, in order to examine the correlation between bilingualism and cognitive style on one side and socialisation on the other. Data confirm the characteristic of full psychological (cognitive and emotional) normality on the part of bilingual children.

## PRAGMATICS

**84–130 Beattie, Geoffrey W.** (U. of Sheffield). Language and nonverbal communication – the essential synthesis? *Linguistics* (The Hague), **19**, 11/12 (1981), 1165–83.

The author takes issue with Argyle and Trower's claims that (1) language and nonverbal communication (NVC) fulfil different functions, (2) NVC is more powerful than verbal language at expressing feelings and attitudes and (3) social relationships are established, developed and maintained mainly by nonverbal signals. None of the four functions of NVC outlined by Argyle ((i) communicating interpersonal attitudes, (ii) communicating emotions, (iii) supporting speech (e.g. synchronising utterances) and (iv) self-presentation) is unique to NVC; language can and does fulfil all these functions. Claim (2) is premature because the studies on which it is based have serious limitations. Doubts about the validity of (1) and (2) must undermine (3) also. Instead of attempting to uncover unique functions for NVC, research should aim to identify the way language serves these functions and how language and NVC operate together.

**84-131 Carrell, Patricia L.** (Southern Illinois U. at Carbondale). Cohesion is not coherence. *TESOL Quarterly* (Washington, DC), **16**, 4 (1982), 479-88.

The purpose of this paper is to criticise the concept of cohesion as a measure of the coherence of a text. It begins with a brief overview of Halliday and Hasan's (1976) cohesion concept as an index of textual coherence. Next, this paper criticises the concept of cohesion as a measure of textual coherence in the light of schema-theoretical views of text processing (e.g. reading) as an interactive process between the text and the reader. This criticism, which is drawn from both theoretical and empirical work in schema theory, attempts to show that text-analytic procedures such as Halliday and Hasan's cohesion concept, which encourage the belief that coherence is located in the text and can be defined as a configuration of textual features, and which fail to take the contributions of the text's reader into account, are incapable of accounting for textual coherence. The paper concludes with a caution to second language (EFL/ESL) teachers and researchers not to expect cohesion theory to be the solution to EFL/ESL reading/writing coherence problems at the level of the text.

**84-132 Dubois, Betty Lou** (New Mexico State U.). Genre and structure of biomedical speeches. *Forum Linguisticum* (Lake Bluff, Ill), **5**, 2 (1980), 140-68.

Speeches given at biomedical conferences differ from published papers in several ways; typically, they present much less information, and present it more informally, often portraying the speaker's personal response to his work. In tagmemic terms, the speeches contain examples of Longacre's four types of oral folk discourse: hortatory, procedural, expository, and narrative. Grimes has claimed that scientific writing is akin to the archetypal fairy tale, but this analysis, though it may apply to popular scientific texts, can be extended only in some respects to biomedical speeches. In structure, however, the speeches do show the three-part division (Introduction, Body, and Termination) characteristic of narratives in many cultures; each of these sections and their subdivisions are exemplified from a large corpus of speeches, and detailed comparisons drawn with written papers and with folk narratives.

**84-133 Kälverkämper, Hartwig** (University of Freiburg). Der Bestand der Textlinguistik. [The current state of textlinguistics.] *Deutsche Sprache* (Berlin, FRG), **9**, 3 (1981), 224-70 (pt. I) and **9**, 4 (1981), 329-79 (pt. II).

After listing almost 500 references on this topic, Part I considers the motivation for, and the development of, text linguistics in terms of its antecedents: it grew out of an extension of linguistic analysis to sequences of sentences, the sentence thus occupying a pivotal position between grammatical and textual analysis, though for some linguists it now has no particular status as a unit of text. Various current approaches see the text as a sequence of sentences linked by substitution relations (Harweg), as an independent entity (Hartmann), or as a system of categories related by determination relations (Weinrich).

Part II reviews the various categories and concepts that make up textuality, and

## 70 *Research in the supporting sciences*

outlines the contributions made to their study, especially coherence (presupposition, substitution, rhyme and metre, etc.) and determination (the role of the verb, form classes, articles, metaphor, etc.). Different theoretical models are described, as well as several directions of research, including pragmalinguistics, speech act theory, and the study of spoken language.

**84-134 Kreckel, Marga.** Communicative acts and shared knowledge: a conceptual framework and its empirical application. *Semiotica* (The Hague), **40**, 1/2 (1982), 45–88.

Communication relies on shared knowledge, but knowledge acquired through direct interaction within a stable environment ('homodynamic' conditions) is qualitatively different from that acquired indirectly in an ephemeral social environment ('heterodynamic' conditions). Studying recordings of interaction within a family (an example of homodynamic communication as far as the participants are concerned), the basic units are taken to be intonational tone-groups, each expressing a communicative concept. Placement of the intonational nucleus and utterance sequencing both contribute to the interpretation of the utterance as a particular type of communicative act: complaining or advising, for example. Extracts of data were interpreted by the participants and by outsiders; family members showed a greater degree of unanimity of interpretation than did the outside observers. There was a general tendency towards interpreting tone-units with verbal nuclei as person-oriented, and those with pronominal or prepositional nuclei as action-oriented, but these and other findings bear only remotely on the ultimate goal of establishing empirically the distinction between homodynamic and heterodynamic communication.

**84-135 Poythress, Vern S.** Hierarchy in discourse analysis: a revision of tagmemics. *Semiotica* (The Hague), **40**, 1/2 (1982), 107–37.

The difference between phonology, grammar, and reference occurs primarily on the plane of the language system rather than that of hierarchy, though the three systems do reflect themselves in hierarchical structure. A nine-box system for hierarchical analysis is proposed, consisting of two intersecting three-way contrasts, with an additional distinction between the types of contribution each element may make to the hierarchy: this may be segmental, transformational, or oppositional. The resulting 27-box system is illustrated by an analysis of a short Biblical passage, first taking the passage as a complete discourse, then examining one of its constituent sentences.

**84-136 Zolotova, G. A.** О лингвистических основаниях коммуникативной типологии речи. [On the linguistic bases of a communicative typology of speech.] *Русский язык за рубежом* (Moscow), **5** (1982), 51–6.

An attempt is made to construct a typology of the devices which represent different types of text, following on from a demonstration that different types of (written) text are instantly recognisable as representing particular types. It is claimed that different forms of linguistic expression characterise these different types – e.g. narratives will

typically involve sentences with a subject and verbal predicate, definitions will tend to involve equative nominal sentences, etc.

The role of other features is mapped out – e.g. tense and aspect, the use of specific, indefinite or generic noun phrases, different verb classes, choice of 'point of view', etc. These features are then illustrated on the basis of several short texts (in Russian).