# Research in the supporting sciences

## LINGUISTIC THEORY

**84–252   Armstrong, Sharon Lee** (Wesleyan U.) **and others.** What some concepts might not be. *Cognition* (Lausanne), **13**, 3 (1983), 263–308.

A discussion of the difficulties of prototype theories for describing compositional meaning motivates three experiments that inquire how well-defined concepts fare under paradigms that are commonly interpreted to support the prototype view. The stimulus materials include exemplars of prototype categories (*sport, vehicle, fruit, vegetable*) previously studied by others, and also exemplars of supposedly well-defined categories (*odd number, even number, female,* and *plane geometry figure*). Experiment I, using these materials, replicated the exemplar rating experiment of Rosch (1973). It showed that both the well-defined and prototypic categories yield graded responses, the supposed hall-mark of a family resemblance structure. Experiment II, using the same sorts of stimulus materials, replicated a verification-time paradigm, also from Rosch (1973). Again, the finding was that both well-defined and prototypic categories yielded results previously interpreted to support a family-resemblance description of those categories, with faster verification times for prototypical examplars of each category. In Experiment III, new subjects were asked outright whether membership in the cateogory of *fruit, odd number*, etc., is a matter of degree, or is not, and then these subjects were rerun in the Experiment I paradigm. Though subjects judged *odd number*, etc., to be well defined, they provided graded responses to all categories once again. These findings highlight interpretive difficulties for the experimental literature on this topic. Part I of the discussion first outlines a dual theory of concepts and their identification procedures that seems to organise these outcomes. But Part II of the discussion argues that feature theories are, in general, too impoverished to describe mental categories.

**84–253   Bondarko, A. V.** Категориалъные ситуации (к теории функцион-алъной грамматики). [Categorial situations (towards a theory of functional grammar).] *Вопросы языкознания* (Moscow), **2** (1983), 20–32.

An attempt at a classification of abstract types of situation in relation to the means by which these are formally expressed. These types of situation can combine in various ways in the expression of larger, more complex states of affairs, and a typology of these types is provided, along with the ways in which they may combine. For example, given a categorisation into actions, states, existence, etc., it is possible to isolate a range of predicate properties (aspect, tense, modality, polarity, mood, etc.), a range of nominal properties (role, animacy, gender, definiteness, etc.) and properties relating to quality, quantity and circumstance. There are restrictions on possible combinations of these properties. More detailed information is given in relation to aspectual meanings, and the use of aspectual categorial situations in typological linguistics is briefly illustrated.

**84–254   Candelier, M. and others.** La notion de phrase dans les grammaires et manuels de français et d'allemand en Allemagne et en France. [The notion of sentence in grammars and manuals of French and German in Germany and France.] *LINX* (Paris), **8** (1983), 7–52.

Three fragments are presented here, not the whole work, which sets out to view syntax through the medium of pedagogy. Characteristics that are national rather than disciplinary emerge from a study of (*a*) French grammars of French, (*b*) German grammars of German and (*c*) French grammars of German, the latter deriving mostly from the work of J. Fourquet. Three different authors, using a common observation grid, examine each in turn, looking first at definitions of the sentence, then at classification of sentence types, then at complements and adverbial clauses. Numerous examples are given and a French/German glossary of grammatical terms provided.

It is shown that definitions are based on two criteria that bear no consistent relationship to each other: first, the speaker's intention and the modality of his utterance – imperative, declarative, interrogative, exclamative; secondly, formal characteristics such as word order and intonation. Furthermore, there is no consistency in identifying the various levels of complexification, though four possibilities are available: minimal sentence v. extended sentence; simple v. complex. However, the relation between nominal and phrastic elements is made clear in the majority of the grammars studied, and this relation is fundamental to the typing of sentences in each language, despite the ambiguous status of certain adverbial clauses and phrases. Adverbials are always defined semantically (not structurally or phonologically), and further research is needed to identify the component structural units that underlie them.

**84–255   Carston, Robyn** (Univerisity Coll., London). Irony and parody and the use–mention distinction. *Nottingham Linguistic Circular* (Nottingham), **10**, 1 (1981) [publ. 1983], 24–34.

Sperber and Wilson's account of irony is shown to deal with a much wider range of cases of subtle qualification of literal meaning than any meaning-inversion approach can. It accounts not only for colloquial irony but also for authorial irony in literary texts despite certain obvious differences between the two, and it recognises the speaker/author's attitude of dissociation from and mockery of the literal words.

The requirement that the mention be echoic does not seem to be crucial, while a requirement that it be covert does. The use/mention distinction used in this approach is very different from the philosophical notion and needs a great deal more work before it can be integrated fully into linguistic theory. This approach does indicate the close relationship between irony and parody, but what exactly counts as a mention of a linguistic expression and whether this is an adequate notion anyway to account for what is going on in a parody is much less clear.

**84-256 Carstairs, Andrew** (U. of Canterbury, NZ). Paradigm economy. *Journal of Linguistics* (London), **19**, 1 (1983), 115–25.

For several decades the concept of the inflexional paradigm, and indeed morphology as a whole, have been relegated to the linguistic background. However, a principle of paradigm economy can be shown to operate, thus indicating that the paradigm itself is not a superfluous notion. Data from several unrelated languages strongly suggest that the maximum number of paradigms logically available with a given range of exponents is never actually reached, and that in fact the number occurring is always close to the minimum. This may be merely a strong tendency, but if principled explanations can be found for apparent exceptions, it may be statable as a strict requirement.

**84-257 Comrie, Bernard** (U. of Southern California). Future time reference in the conditional protasis. *Australian Journal of Linguistics* (St. Lucia), **2** (1982), 143–52.

Languages show considerable variety in the verb form used in conditional protases with future time reference. Some simply use the future indicative. Of those that do not, some use the present indicative, some a non-indicative mood of the present, while some use a non-present non-indicative. Languages not using the future indicative in straightforward protases with future time reference do, however, have the option of using this form in order to express other semantic or pragmatic shades, which cannot be encoded in languages of type I merely by manipulation of the opposition between future indicative and other tenses or moods.

**84-258 Dissanayake, Wimal.** The phenomenology of verbal communication: a classical Indian view. *Semiotica* (The Hague), **41**, 1/4 (1982), 207–20.

In his *Vakyapadiya*, Bhartrhari points out the close relationship that exists between language and cognition. He argues that the participants in a communicative act intuit the meaning of the other(s) by a process of self-elucidation. The more they share a common linguistic and cultural world, and thereby promote the construction of a common interpretational framework, the more efficacious the process of communication is likely to be. As each of the partners in the communicative act interprets the other's meaning on the basis of his own experience and self-elucidation, speakers have to pre-interpret what they say in terms of the anticipated response of their hearers.

**84-259 Engdahl, Elisabet** (Stanford U.). Parasitic gaps. *Linguistics and Philosophy* (Dordrecht), **6**, 1 (1983), 5–34.

An overview of the distribution of a certain type of null anaphors which seem to be parasitic on the presence of a syntactic gap in the sentence, e.g. *This is the kind of food you must cook —— before you eat ——· p*, the latter being the parasitic gap. The phenomenon has a bearing on several issues that are central to grammatical theory and the study of sentence processing. For instance, as parasitic gaps are licensed only

by gaps arising in unbounded dependencies, a distinction between local and non-local processes has to be made at some level of the grammar. Since they are subject to systematic restrictions which pattern together with general principles for anaphora, an explicit formulation of the conditions on parasitic gaps might shed new light on how restrictions on regular extractions should be stated in the grammar.

The characterisation of parasitic gaps is also relevant to attempts at formulating and testing hypotheses about how the human parser operates when it parses a sentence with filler-gap dependencies.

**84–260    Evely, Clyde**. The competence to be competent. *Papers in Linguistics* (Champaign, III), **14**, 4 (1981), 497–508.

Competence is the ability to act appropriately in a situation. The grammatical rules of linguistic competence must play an important role in defining the situation and planning an appropriate action. A skill crucial to performing competently is the ability to shift or sustain the focus of attention. The type of attentional processing depends upon the temporal characteristics of the information to be monitored. Punctual processing monitors new information and is important in establishing the next focus. Durational processing monitors old information and is important in maintaining the current focus. Punctual and durational processing have important consequences for lingusitic structure and function in that they are the basis of the verb's aspect of the topic–comment distinction needed for holding a conversation. The focus of the neurological system responsible for controlling this phase of attentional processing is the hippocampus. This system operates in the perceptual domain to maintain or define ambient information, in the motor domain to sustain or change muscle tension, and in memory retrieval to recognise or recall information. Competence, then, is the ability to integrate this information by defining the situation and planning an approprite action. This is true whether the action takes place in the perceptual-motor realm or the mental realm – the species-specific trait of linguistic performance is the attentive handling of mental information independently of perceptual-motor processing. This trait appeared in the course of human evolution as the power of durational processes increased and pressured the development of a strong verbal memory and the ability to control information displaced in time and space.

**84–261    Gerbert, Manfred.** Semantische Analyse fachsprachlicher Satzge-füge. [Semantic analysis of constructions in specialist language.] *Fachsprache* (Vienna, Austria), **4**, 4 (1982), 174–80.

Examples of modern scientific writing show that characteristics such as the use of the passive, the omission of the agent and the employment of nominalisations, derive from the need of scientific communication for precision and economy. In ordinary speech the verbal valencies would be more fully used. Examples are given from 17th-century scientific correspondence to show that the use of the active with a first person agent was normal at that time, but the modern usage, with the passive and no agent expressed, was established by the 19th century. Specialist journals of learned

societies have been influential in standardising usage, but the characteristics of modern scientific writing cannot be understood purely stylistically; they also derive from the specific semantic postulates of this kind of writing.

**84–262 Kinkade, M. Dale** (U. of British Columbia). Salish evidence against the universality of 'noun' and 'verb'. *Lingua* (Amsterdam), **60**, 1 (1983), 25–40.

It is usually claimed that languages contain at least two major word-classes, nouns and verbs. However, Salishan languages of Northwestern North America cannot be described in these terms. Instead, only predicates and particles can be distinguished. Nouns and verbs are variously defined for other languages. But whether looked at morphologically, syntactically, semantically, or logically, and whether at a surface or deep level, the notions 'noun' and 'verb' (as well as other traditional parts of speech) are not relevant in Salish. A Salishan sentence contains at least a predicate, which may be inflected for pronominal subject and/or object (as well as aspect, control, transitivity, etc.). An overt subject or object may be expressed by adding another predicate in apposition to the pronominal elements affixed to the main predicate. Complex sentences may thus be built up by adding layers of embedded appositional and adjuncted predicates.

**84–263 Krampen, Martin**. The developmental semiotics of Jean Piaget (1896–1980). *Semiotica* (The Hague), **34**, 3/4 (1981) [publ. 1983], 193–218.

The sources of Piaget's developmental semiotics can be found in the work of Delacroix and Saussure; in his own theory, three stages of the development of signs ('symbols' in Peirce's terminology) are proposed, in each of which both signifier and signified are to be understood differently. Indices, similarly, show a three-stage course of development from the recognition of one's own motor schema, through the realisation that the effect of one's own actions can be predicted, to the predictions of independent events (e.g. that someone's rising may indicte that he is about to leave). The development of iconic signs can be explored through children's drawings, and again, three developmental stages can be identified, eventually reaching visual realism when the child reproduces only what he can actually see from a given viewpoint (and not, for example, also showing what is *inside* a house).

**84–264 Laughlin, Charles D., Jr. and others**. A model of brain and symbol. *Semiotica* (The Hague), **33**, 3/4 (1981) [publ. 1983], 211–36.

The main function of the human brain is the formation of neurognosis: the totality of models of the cognised environment, which is only partially isomorphic with the actual environment. The symbolic function of the nervous system involves an evocation of knowledge of the operational environment by a stimulus, which may be internal or external to the organism. In the neurognostic model, the meaning of a symbol can be equated with the mental models it evokes. In both evolutionary and individual development, the symbolic function progresses from symbols, through signs, to formal sign systems such as mathematics or myth. Phenomenology – the

experience of the moment – is integral to our understanding of symbolism, because of the ways in which symbols order experience, especially in the 'zone of uncertainty', where environmental effects have no readily perceivable cause.

**84–265    Leclair, Guy** (CELE UNAM, Mexico). Participation du lexique à l'élaboration de la syntaxe. Participation de la syntaxe à l'élaboration du sens. [The role of lexicon in the the elaboration of syntax and the role of syntax in the elaboration of meaning.] *Estudios de Linguistica Aplicada* (Mexico), **1**, 2 (1982), 81–102.

The role of lexicon in the syntax and semantics of a sentence requires a critical assessment of the relationship which exists between lexical meanings, denotative or connotative, and the grammar of a language. That is to say, the extent to which grammar organises the meaing of the sentence as well as the discourse. What is important, then, is to give lexicon its place in structural linguistics by demonstrating the importance that the semantic contents of lexical units have on the syntactic behaviour of the lexemes in question.

This article postulates that syntax is not arrived at *ex nihilo nihil* but may be induced from the linguistic affinities among lexical elements. Also, if we accept that syntax contributes to meaning, then it in fact specifies the internal relationship of the elements in a semantic-syntactic relationship rather than a syntactic-semantic one.

**84–266    Maynard, Senko Kumiya** (U. of Hawaii). Theme in Japanese and topic in English: a functional comparison. *Forum Linguisticum* (Lake Bluff, Ill), **5**, 3 (1981), 235–61.

Based on the analysis of data provided by a well-known Japanese text, and two English translations, it is concluded that in spite of the fact that both thematisation in Japanese and topicalisation in English involve partially similar syntactic configurations which transformationalists propose (i.e. NP preposing, etc.), the functions of these linguistic phenomena are quite different. Whereas in Japanese $NP\text{-}_{wa}$ occurs frequently and thematic structure overrides logical structure, in English topicalisation (including both Gundel's topicalisation of a topic and topicalisation of a focus) is less frequently used – particularly in written discourse – and a rigid SVO structure is maintained. In these limited data, the discourse function of -*wa* is to signal the theme on the discourse level, thus creating and maintaining the thematic element and providing coherence to that discourse segment. On the other hand, though topicalisation of topic in English seems so have a similar function, it is a highly marked phenomenon. In written text, other linguistic devices such as adverb preposing, passivisation, pronominalisation, and the definite article and noun combinations are used. These linguistic devices in English accomplish an effect (i.e. cohesion) similar to that of $NP\text{-}_{wa}$ in Japanese. Topicalisation in English, then, has a very limited distribution in written text. In fact, as we have seen earlier, we find no example of English topicalisation in our limited data.

**84–267 Richards, Barry.** Discourse and deixis. *Journal of Semantics* (Nijmegen, The Netherlands), **1**, 4 (1982), 347–69.

There is an inclination to think that pronouns, when they have singular indefinite antecedents, admit of only two kinds of interpretation. They can be seen either as 'bound' by their antecedents or as co-referential with them. Which is appropriate on a given occasion will depend upon how the antecedent is used. Neither account can be paradigmatic of the relation between pronouns and singular indefinite antecedents, at least not as this relation is realised in discourse. 'Binding' would seem to misrepresent the typical structure of discourse; and indefinite noun phrases do not refer, despite the fact that people sometimes use them with some particular in mind. An alternative account is suggested which satisfies some of the intuitive desiderata.

**84–268 Schwarze, Christoph.** Stereotyp und lexikalische Bedeutung. [Stereotype and lexical meaning.] *Studium Linguistik* (Kronberg/Ts, FRG), **13** (1982), 1–16.

Recent work on lexical semantics by the psychologist Rosch and the philospher Putnam suggests that word meanings are not perceived as collections of categories with fixed boundaries, but in terms of ideal representatives (Rosch's 'prototypes', Putnam's 'stereotypes'). The implications of this for linguistic semantics are discussed, in particular whether semantic markers need to be abandoned. It is suggested that not all aspects of lexical meaning can be analysed in the same way, and that markers may be necessary in addition to stereotypes. Consideration is given to some problems with stereotypes, in particular Putnam's concept of 'extension', which is rejected in favour of an admittedly relative distinction between lay and specialist knowledge, the question of how stereotypes are to be determined, and the contradictions between the stereotypes of different speakers.

**84–269 Tasmowski-De Ryck, Liliane and Verluyten, S. Paul.** Linguistic control of pronouns. *Journal of Semantics* (Nijmegen, The Netherlands), **1**, 4 (1982), 323–46.

The authors argue against the claim put forward by Lasnik (1976) that pronouns are, in all cases, pragmatically controlled, i.e. that they refer directly to objects or situations in the world. In fact, the generalisation defended here is exactly the opposite: all pronouns are linguistically controlled, i.e. they have a linguistic antecedent in all cases. Even in those instances where no antecedent is present in uttered discourse, the necessity of postulating such an antecedent, and the possibility of identifying it, can be demonstrated. An antecedent which is not present in uttered discourse is subject to particular recoverability conditions, both pragmatic (it must be controlled by a salient object) and linguistic (the pronoun which is controlled by such an absentee antecedent can only occur in a restrained class of discourse contexts).

**84–270   Thayer, Lee.** Human nature: of communication, of structuralism, of semiotics. *Semiotica* (The Hague), **41**, 1/4 (1982), 25–40.

Some ways are considered in which structuralism and semiotics might be relevant to a theory of human communication. If we accept one of structuralism's basic tenets – that the world we experience is the pre-encoded world, more or less the communicable world, we have to consider the possibility that both the utterance and the response are aspects of a pre-existing structure. Furthermore, if we consider any utterance as a 'text', then the significance of the meaning of that text exists only in our understanding of it. It is likely to be more fruitful to look for the logic of a specific communication behaviour in the *langue* (the pre-existent language of behaviour) of which it is a *parole* (an instance of behaviour), rather than in the utterance, trans-action or even immediate context. From the semioticism we learn that, since all the practices that make up a social totality take place in language, we should recognise that the social individual is a construction of language and that language is not merely the means of communication.

**84–271   Weiner, E. Judith** (Temple U.) **and Labov, William** (U. of Penn-sylvania). Constraints on the agentless passive. *Journal of Linguistics* (London), **19**, 1 (1983), 29–58.

A quantitative study of the factors that determine the selection of passive constructions over active ones by English speakers. A corpus of passives used in spontaneous speech, together with the sentences that show an opposing choice, is examined to elucidate the various syntactic and semantic features of the environment which act to constrain this choice. Such a choice is found to be determined more by the ordering of surface syntax across clauses then by any notion of 'given vs. new' information.

## PHONETICS AND PHONOLOGY

**84–272   Clark, John E.** (Macquarie University, North Ryde, NSW). Intelligibility comparisons for two synthetic and one natural speech source. *Journal of Phonetics* (London), **11**, 1 (1983), 37–49.

A set of simple test procedures for making a quantitative assessment of synthetic speech intelligibility characteristics at the phonetic level is described. To show where the major weaknesses of the synthesised speech sources lie, comparisons were made between natural speech, analysis–synthesis speech, and speech synthesised by rule, using the same test materials and protocol. The results indicate that the intelligibility of synthesised speech sources is equal or superior to natural speech for vocalic segments, but that synthetic stop and fricative class consonants have lower intelligibility than their natural counterparts. Moreover, the synthesised consonants were more vulnerable to degradation by masking noise, showing the synthesised acoustic cures to be less robust perceptually. The results suggest that terminal analogue speech synthesisers perform least well when generating approximations to the complex spectra found in fricatives and the release phase of stops. Not unexpectedly, the rule-

synthesised consonants showed poorer performance in noise than the analysis–synthesis consonants, since the derivation of their parameteric specifications was one step further removed from the natural speech parametric data.

**84–273 Gandour, Jack** (Purdue U., Ind). Tone perception in Far Eastern languages. *Journal of Phonetics* (London), **11**, 2 (1983), 149–75.

This study investigated the perceptual dimensions of tone and the effect of linguistic experience on a listener's perception of tone. Fifty listeners from each of four Oriental tone languages (Cantonese, Mandarin, Taiwanese, Thai) and 50 listeners from a non-tone language (English) were asked to make direct paired-comparison judgments of tone dissimilarity. Stimuli consisted of 19 different fundamental frequency trajectories (five level, four rising, four falling, three falling–rising, three rising–falling) superimposed on a synthetic speech-like monosyllable. The dissimilarities data were organised into 250 dissimilarity matrices and analysed by the INDSCAL multi-dimensional scaling model. The INDSCAL analysis revealed two dimensions which were interpreted primarily as 'height' and 'direction'. The relative importance of these dimensions varied systematically across listeners based on language group membership. The direction dimension was relatively more important to listeners of a tone language than a non-tone language, and to Thai listeners in comparison to Chinese. Discriminant analysis revealed that listeners of tone languages versus a non-tone language, Thai listeners versus Chinese, and Cantonese listeners versus Mandarin and Taiwanese, can be correctly classified into their respective language groups on the basis of their pattern of dimension weights. Hierarchical clustering analysis indicated that differences in clustering of the sitmulus tones can be related to abstract structural properties of listeners' phonological systems.

**84–274 Hoequist, Charles, Jr.** (Haskins Labs., New Haven, Conn). Durational correlates of linguistic rhythm categories. *Phonetica* (Basle), **40** (1983), 19–31.

Experimental investigations into the reality of impressionistic rhythm categories of language (stress-timing, syllable-timing and mora-timing) have usually tested extreme models of rhythm types. A comparative study of durational characteristics in Spanish (syllable-timed) and Japanese (mora-timed) confirms the absence of a strict isochronic rhythm but yields evidence fitting a less strict hypothesis of rhythm categories.

**84–275 Linker, Wendy.** Articulatory and acoustic correlates of labial activity in vowels: a cross-linguistic study. *UCLA Working Papers in Phonetics* (Los Angeles), **56** (1982), 1–134.

The first question considered by this study is: Which measure or measures of lip position are the linguistically relevant ones for describing the vowels of English, Cantonese, Finnish, French and Swedish?

In order to answer this, a type of 3-mode factor analysis was used. It was found that the optimal solutions for each language consisted of one factor for English, two factors for Cantonese and three factors for Finnish, French and Swedish. Only English, which has no front rounded vowels, cannot uniquely have its lip positions

represented in a 3-dimensional space. [Underlying parameters found to be important in distinguishing the vowels of the different languages.]

The second question addressed was: Do similarly transcribed vowels in the five languages make use of different lip gestures? Three methods were used to compare similarly transcribed vowels across languages. (i) Twelve parameters of lip position (consisting of raw lip measurements and ratios of raw lip measurements) were compared across languages, for the vowels [i], [y] and [u]. An analysis of variance was performed, revealing significant differences for certain of these vowels across languages for various parameters. It was found that Cantonese and English speakers use significantly less lower lip protrusion in the production of the vowel [u], for example, than do speakers of Finnish, French and Swedish. (ii) Observing the patterning of the vowel × mean speaker loadings along two factors, for which the lip measurement loading matrices were highly correlated. Similarities were found across the vowel systems in terms of the ordering of the vowels and in terms of their division into 'rounded' and 'unrounded' groups, but there were also differences regarding how closely particular vowels clustered together. This indicates that the languages under study differ with respect to the amount of the above parameter that they use to distinguish their vowels. (iii) A generalised type of canonical correlation (CANON) was used to find a common factor space, in which to compare the vowels across the four languages with front rounded vowels. As with the previous method, similarities were found across languages in terms of the ordering of the vowels, but differences were found in the way the vowels clustered together. The traditional divisions of inrounding/outrounding and tense/lax were reflected in the clustering of the vowels along both canonical factors.

The third question addressed in this study concerned the relationship between lip position and formant frequency in the vowels of the five languages. Although it was not possible, at least for English, to predict raw measures of lip position from formant frequency accurately, a factor of lip shape underlying the English data could be predicted from formant frequency with a correlation of 0·831. An attempt was made to predict canonical factors 1 and 2 from formant frequency for Cantonese, Finnish, French and Swedish. Only two common characteristics were found: to distinguish between [y] and [ø] (and between [u] and [o]), all languages use relatively higher values of both horizontal opening and protrusion/vertical opening for [y] and [u], and relatively lower values of both horizontal opening and protrusion/vertical opening for [ø] and [o]. Because speakers of different languages would produce acoustically identical vowels with very different lip gestures, it is concluded that the relationship between lip position and formant frequency is to a large degree language-specific.

**84–276   Ohala, John J**. (U. of California, Berkeley). Cross-language use of pitch: an ethological view. *Phonetica* (Basle), **40** (1983), 1–18.

The frequency code is a cross-species sound/meaning correlation whereby vocalisations consisting of high frequencies signal the vocaliser's apparent smallness and, by extension, his non-threatening, submissive, or subordinate attitude and by which low-frequency vocalisations signal apparent largeness and thus threat, dominance,

self-confidence. The existence of sexual dimorphism and the vocal anatomy of adult humans suggests that the frequency code is an inherent part of human vocal communication (and probably has been for millions of years). The adult male's larger and lower larynx gives him the low-pitched and low-resonance voice that would enhance the vocal component of threat displays and thus permit better defence of the family unit. The frequency code explains the similarities in cross-language and cross-cultural use of the pitch of voice to mark questions versus non-questions, to signal different social attitudes (dominance, submission, assertiveness, politeness), and to refer to things small and large using sound symbolic vocabulary.

**84–277   Ringeling, J. C. T.** Recognition of words and non-words in whispered speech: a contrastive experiment. *PRIPU* (Utrecht), **8**, 1 (1983), 15–30.

Whispered words contain phoentic cues that compensate for the loss of fundamental frequency. Two of these cues are word duration and spectral composition. In a listening test, advanced Dutch learners of English recognised English CVC-sequences less successfully than Dutch CVC-sequences when dealing with whispered material. On the whole recognition was quite good in comparison with normally and softly spoken CVC-sequences that had been attenuated to the same intensity-level at a previous occasion, but misperception of consonants involved the feature 'voice' more frequently than in normal or soft speech.

**84–278   Stemberger, Joseph Paul** (Carnegie-Mellon U., Pittsburgh). The nature of /r/ and /l/ in English: evidence from speech errors. *Journal of Phonetics* (London), **11**, 2 (1983), 139–47.

The phonemic status of prevocalic, post-vocalic, and syllabic /r/ in American English is explored using speech error evidence. Post-vocalic /r/ and /l/ do not behave like glides or other consonants. It is argued that, unlike glides, they are not a part of the vowel, but, unlike consonants, they are part of the syllable nucleus rather than the syllable coda. Syllabic /r/ and /l/ show some error-patterns characteristic of vowels, and other error-patterns characteristic of consonants. Even sophisticated attempts to treat syllabic /r/ and /l/ as vowels fail. All variants of /r/ and /l/ are members of a single consonant phoneme. Phonemes thus apparently do not contain a feature for syllabicness; that must be imposed on the segment from an external source, such as the syllable structure.

**84–279   Webb, Charlotte**. A constraint on progressive consonantal assimilation. *Linguistics* (The Hague), **20**, 3/4 (1982), 309–21.

Rules of assimilation, one of the most common phonological processes, occur in a large variety of types. However, from examining a large sample of assimilation rules, it is evident that there are many assimilations which one could conceive of but which do not appear to occur. This paper surveys the types of assimilation rules in clusters of true consonants. The following constraint on progressive consonantal assimilations is proposed: such assimilation rules do nòt change the primary place of articulation

in clusters of true consonants. There is a strong correlation between syllable position and the direction of assimilation which may explain why regressive assimilation is far more common than progressive.

# SOCIOLINGUISTICS

**84–280    Amastae, Jon** (U. of Texas at El Paso). Learner continuums and speech communities. *Papers in Linguistics* (Champaign, Ill), **14**, 2 (1981), 155–96.

A serious problem for those analysing the linguistic dimensions of bilingual communities (as all others) is distinguishing individual from social phenomena. In this paper a method is presented for analysing the acquisition-like patterns in the English consonants sued by Spanish–English bilinguals. This method is based on work by Bickerton (1973) and Gatbonton-Segalowitz (1975) and allows a clear view of both individual and group. The analysis shows that there is a continuum of use of the standard English consonants not occurring in Spanish in both individual and social use. It also shows style shifting of a rather different sort than that usually delineated in sociolinguistic analyses. In addition, it is argued (1) that a definition of speech community must be broad enough to encompass communities such as the one discussed, even though many speakers may show a variety of acquisition-like forms; and (2) that different sorts of varieties and communities may require different analytical techniques.

**84–281    Baetens Beardsmore, Hugo** (Free U. of Brussels). Substratum, adstratum and residual blingulism in Brussels. *Journal of Multilingual and Multicultural Development* (Clevedon, Avon), **4**, 1 (1983), 1–14.

In order to identify both the nature, quantity and distribution of Dutch origin elements in the speech of different users of French in Brussels, the notion of residual bilingualism is introduced to identify community-shared features which reflect the historical switch of language dominance from preponderantly monoglot Dutch to preponderantly monoglot French. A further distinction is made between elements originating in Dutch but which have been integrated into the French of the community as clear features of residual bilingualism, and interference elements primarily present in the speech of bilinguals. Observations on the operation of code-switching lead to a refined social classification of the nature of code usage in a bilingual community made up of monoglots, bilinguals and immigrants which provides a clear frame of reference for similar complex bilingual contexts elsewhere.

**84–282    Bell, Allan.** Broadcast news as a language standard. *International Journal of the Sociology of Language* (The Hague), **40** (1983), 29–42.

Broadcast media play a multiple role – active as well as passive – in language standardisation. (1) In their choice of standards for their own use, they reflect the language evaluations of society; (2) they extend that standardisation further by selecting certain forms and codifying them for use by announcers; and (3) by the use

of these forms and the standard language as a whole, the media disseminate the standard and further enhance its prestige.

Broadcast language functions as a standard in all kinds of speech communities – multilingual, diglossic, multidialectal. News language in New Zealand is analysed in some detail. The main finding was that news language styles on different radio stations correlated with the differing social statuses of their audiences. The prestigious National Programme had the highest status audience and the most formal style. There was a less formal style on the three mid-status stations, and least formal on the low-status stations. The proportion of informal, contracted variants increased as audience status decreased. Informal, familiar speech is a means by which local broadcasters try to establish a relationship with their audience. The national stations deliberately use the standard language for its impersonal, authoritative effect.

**84–283   Bentahila, Abdelâli and Davies, Eirlys E.** (U. Mohamed Ben Abdellah, Fez, Morocco). The syntax of Arabic–French code-switching. *Lingua* (Amsterdam), **59**, 4 (1983), 301–30.

This paper examines the syntax of the intra-sentential code-switching between Arabic and French which is a common feature of the speech of Moroccan bilinguals. Previous work on code-switching has suggested a variety of constraints prohibiting switching in specific structural and language environments. However, the present study concludes that Arabic–French code-switching is possible at all syntactic boundaries above the word level, though it is not generally permitted between word-internal morpheme boundaries. Moreover, contrary to claims made by others about other types of code-switching, there is for Arabic–French code-switching no constraint that the structure exhibiting a switch must conform to the surface structure patterns of both languages. Instead, it is shown that the possibilities are limited by the requirement that, in structures exhibiting switching as elsewhere, all items must be used in accordance with their own language-particular subcategorisation restrictions. Certain types of switch, though not prohibited by any syntactic constraint, occur much more rarely than certain others; this is seen to reflect contrasts between the roles the two languages typically assume in structures involving switching.

**84–284   Ferguson, Charles A.** (Stanford U.). Sports announcer talk: syntactic aspects of register variation. *Language in Society* (Cambridge), **12**, 2 (1983), 153–72.

The language of sportscasting is analysed in terms of register variation. First the register is 'located' by successive approximations to a characterisation of its occasions of use, then selected syntactic characteristics are identified: simplification (deletion of copula and sentence initial nominals), inversions, heavy modifiers, result expressions (*for* + noun, *to* + verb), routines (e.g. giving the 'count'). Some of these are discussed in relation to possible communicative functions, but all are seen as register markers. Sports announcer talk is described as a promising topic for comparative, historical, and acquisitional studies of register variation.

**84–285   Gordon, David Paul** (U. of California, Berkeley). Hospital slang for patients: crocks, gomers, gorks, and others. *Language in Society* (Cambridge), **12**, 2 (1983), 173–85.

According to a widespread view, people or experiences that evoke painful feelings of empathy, anxiety, or fear can be dealt with by giving them humorous, derogatory, or evasive names. Such terms allow the release or avoidance of unpleasant emotion. At first glance, hospital slang expressions for patients appear to provide numerous examples of this, but closer inspection suggests very different conclusions. Patient conditions which may be expected to create particular anxiety or distress do not lead to slang labels. Slang terms for patients fall into four categories, three of which characterise types of patients who claim more attention for their conditions than is warranted. The fourth category is made up of positive or neutral descriptive terms.

Hospital slang for patients serves social as well as expressive functions. Rapport within a group and rapport between individuals are distinct phenomena. When embedded in contexts that avoid individualised expressions of emotion or experience, hospital slang may promote group rapport at the same time that it maintains individual distance. In this respect it is similar to other kinds of slang, and other discourse devices. (Slang, discourse negotiation and contextualisation, medical anthropology, rapport, expressive function of names and labels.)

**84–286   Luthy, Melvin J.** (Brigham Young U.). Non-native speakers' perceptions of English 'nonlexical' intonation signals. *Language Learning* (Ann Arbor, Mich), **33**, 1 (1983), 19–36.

This paper reports the results of a study to determine how well non-native English speakers understand 14 English intonation signals that generally do not have written correlates. The 14 signals were recorded free of any verbal context, and played first to 25 native English speakers to determine if they understood them without the usual visual or verbal clues, and then to 42 foreign students to determine if there was a significant difference between them and the native speakers. The results indicated that our foreign students may be missing or misinterpreting much that native speakers communicate quite automatically with 'nonlexical' signals.

The paper discusses the signals, their meanings, and the errors that foreign students made. Each of the signals is shown in an appropriate context with a narrow phonetic description to help anyone desiring to learn or teach the meanings conveyed by this part of English phonology. Related studies and possible avenues for future research are noted.

**84–287   Mehan, Hugh** (U. of California, San Diego). The role of language and the language of role in institutional decision making. *Language in Society* (Cambridge), **12**, 2 (1983), 187–211.

The relationship between linguistic processes, cognitive activities, and social structures is explored by examining the decision making of committees of educators as they decide to place students into special education programmes or retain them in regular classrooms. Often, different committee members enter committee meetings with

different views of the student's case and disposition, e.g., classroom teachers and parents provide accounts of the student's performance that compete with the view of the psychologist or district representative. Yet by the meeting's end, the version of the student's case provided by the psychologist or the district representative prevails.

The discursive and organisational arrangements that provide for this manner of making decisions are explored. Differences in the format, mode of presentation, source of supporting evidence, and invocation of contextual particulars lead to a distinction between 'lay' and 'professional' reports. Professional reports (those presented by psychologists, nurses administrators) were treated differently to lay reports (those presented by parents and teachers). Despite the fact that they were composed of a highly technical vocabulary, the professional reports are accepted without challenge or question, while the lay reports were continually interrupted by requests for clarification and further information.

This differential treatment is explained by the authority that reports gain by their mode of presentation. The 'professional report' gains its status and authority because it is obscure, difficult to understand, and embedded in the institutional trappings of the formal proceedings of the committee meeting. This authority contributes to the assembly of a presentational mode of making decisions in which decisions are presented, not discussed; credentialled, not negotiated. (Linguistic, cognitive, social structure, language and role, the discourse of persuasion.)

**84–288  Miller, Michael D.** (Michigan State U.) Friendship, power and the language of compliance-gaining. *Journal of Language and Social Psychology* (Clevedon, Avon), **1**, 2 (1982), 111–21.

This study examines the impact of degree of friendship between actor and target, power of the target, and identity of the primary beneficiary of compliance on the selection of persuasive message strategies. As predicted, the nature of the relationship and power of the target interacted to influence strategy selection. With targets who were acquaintances of the actor, the probability of employing persuasive message strategies decreased as the power of the target increased. With targets who were friends of the actor, the probability of strategy utilisation decreased as the power of the target decreased. No effects involving the identity of the beneficiary of compliance were obtained.

**84–289  Pierson, Herbert D. and Bond, Michael H.** (Chinese U. of Hong Kong). How do Chinese bilinguals respond to variations of interviewer language and ethnicity? *Journal of Language and Social Psychology* (Clevedon, Avon), **1**, 2 (1982), 123–39.

Do Chinese bilinguals change their non-verbal behaviours when they are speaking English as opposed to Cantonese and speaking with Americans as opposed to fellow Chinese? In order to answer these questions, 64 female English majors at the Chinese University were video-taped during a standardised interview in either Cantonese or English by an interviewer of American or Chinese ethnicity. Measures of self-per-

ception and perception of the interviewer were also taken to illuminate the meaning of the potential changes in non-verbal behaviour. The language and ethnicity variables had functionally different impacts on the non-verbal behaviours: the higher speed, less frequent use of filled pauses, and increased gazing when using Cantonese are suggestive of its greater redundancy relative to English; the lesser talking combined with increased smiles and torso shifts emitted with the American interviewers were compatible with the higher potency and greater informality with which the Americans were perceived by these bilinguals. The American interviewers were relatively less fluent using Cantonese than were interviewers in the other conditions. Perceiving this lesser skill, the interviewees accommodated by downgrading their self-ratings of second-language fluency and by increasing their frequency of filled pauses while answering.

**84–290   Rampton, M. B. H.** (Rotheram High Sch., Luton and London U. Inst. of Ed.). **Some flaws in educational discussion of the English of Asian schoolchildren in Britain.** *Journal of Multilingual and Multicultural Development* (Clevedon, Avon), **4**, 1 (1983), 15–28.

This article examines educational literature concerned with the English of Asian schoolchildren in Britain. It focuses on the often pejorative use of the phrase 'deceptive fluency', and characterises discussion as normative, teacher-centred and only narrowly sociolinguistic in scope. In contrast to this has been the treatment of West Indian language, although there are now a few signs that educational discussion of Asian children's English may be turning in a similar direction.

**84–291   Sankoff, David** (U. of Montreal) **and Poplack, Shana** (CUNY). A formal grammar for code-switching. *Papers in Linguistics* (Champaign, Ill), **14**, 1 (1981), 3–46.

Using studies of the verbal interaction of English-/Spanish-speaking Puerto Ricans in the USA, the authors describe in formal terms how the free morpheme constraint and the equivalence constraint determine the way the two monolingual grammars may be combined in generating discourse containing code-switches. These code-switching constraints are surface phenomena and cannot be naturally generated in deep structure. Phrase structure grammars for L1 and L2 can be combined to form a code-switching grammar which generates grammatical monolingual sentences as well as those containing only valid code-switches. Rule probabilities for the code-switching grammar represent a compromise between G1 ang G2 probabilities. The switching propensities for various syntactic boundaries yield a clear and simple picture of syntactic effects on code-switching. For most boundary types, switches occur with a rate proportional to the occurrence of the boundary type. Freely movable constituents have more switches at their boundaries, while boundaries between constituents which are highly constrained to occur together are more resistant to switches.

**84–292 Wodak, Ruth** (U. of Vienna). Die Beziehung zwischen Mutter und Tochter: eine sozio- und psycholinguistische Studie zur Variation auf der Textebene. [The relation between mother and daughter: a socio- and psycholinguistic study of variation on the text level.] *Folia Linguistica* (The Hague), **15**, 1/2 (1981), 39–86.

On the basis of psychoanalytical, sociological, and linguistic considerations, and in the light of previous work on the subject, a number of hypotheses are formulated about the mother–daughter relationship and its manifestation in linguistic texts. Differences are expected between the mother–daughter and the mother–son relationship, though there will also be variation according to social class and other domestic circumstances, and all these will be reflected in the text and its structure.

To test these hypotheses, essays by 42 boys and 62 girls on the topic 'My mother and I' were examined, and interviews conducted with the children and their mothers. The essays were assessed in terms of 16 categories of variation, and revealed more reflective and evaluative, less logically consistent, but verbally more emotive writing by the girls. An attempt is made to correlate these findings with psychoanalytical and sociological considerations regarding the mother–daughter relationship.

# PSYCHOLINGUISTICS

**84–293 Esser, Ulrich.** Textverarbeitung – ein schemageleiteter kognitiver Prozess. [Text processing – a schema-led cognitive process.] *Deutsch als Fremdsprache* (Leipzig, GDR), **20**, 1 (1983), 26–9.

Research into the production, perception and reproduction of texts shows that text processing and storage is a semantically oriented process assisted by the perception and retention of schematic structures that are hierarchically ordered in ways that facilitate information transfer. Within the framework of Von Kintsch and van Dijk (1978), three experiments are described designed to test the relationship between performance in text storage and reproduction and the macrostructure attributed to the text.

The first experiment got 25 subjects to reproduce the story of 'The farmer and his stubborn ass'; they performed better reproducing the higher level than the lower level structures. In experiment two, the 'natural' structure and hierarchy of the text was disturbed in four different ways, each more distant from the original order. The subjects performed worse and took longer the greater the distance from the original. The third experiment presented a scientific text in general psychology to be reproduced and analysed in the same way as the text in experiment one. With training in perception of text organisation, performance improved. It is concluded that the schema of a text assists retention and reproduction.

**84–294    Frazier, Lyn and others** (U. of Massachusetts). Filling gaps: decision principles and structure in sentence comprehension. *Cognition* (Lausanne), **13**, 2 (1983), 187–222.

The correct grammatical characterisation of sentences containing filler-gap dependencies is a topic of considerable theoretical interest in linguistics. In some grammatical frameworks, these dependencies are represented in terms of conditions on the permissible indexing of structures (or alternative structure evaluation conditions) which a representation must adhere to in order to be well formed. In other frameworks, constraints on permissible filler-gap dependencies are simply inherent in the set of phrase structure rules contained in the grammar of a language.

The processing of sentences with multiple (potential) filler-gap dependencies was investigated in two experiments. The first experiment provided evidence for three claims. First, the human sentence processor abides by a strategy of assigning the most recent potential filler to a gap. Hence, 'recent filler' sentences where this assignment proves to be correct take less time to comprehend than 'distant filler' sentences where this decision turns out to be incorrect. Second, the recent filler strategy is itself just a special case of a more general strategy of assigning the most salient potential filler to a gap. Third, unambiguous sentences in which a filler-gap assignment is dis-ambiguated by 'control' information specified by individual verbs gives rise to the same recent filler errors as ambiguous sentences. This suggests that tentative filler-gap assignments are made by the processor before all of the relevant constraints on permissible filler-gap dependencies are consulted by the processor.

The second experiment tested an alternative hypothesis that the more complex 'distant filler' sentences took longer to comprehend in the first experiment only because these sentences often contained verbs which license two adjacent gaps. The experiment showed that there was a significant recent filler effect in sentences that did not contain adjacent gaps and that this effect did not interact with verb class.

The finding that the processor delays use of verb-control information is extremely surprising. It may be explained by the fact that this information is only relevant to one type of gap ('equi-gaps') and what type of gap the processor is dealing with often cannot be determined unambiguously at the time when it initially encounters a gap in its left-to-right processing of a sentence.

If the interpretation of these findings is correct, they argue for a considerable amount of structure in the sentence comprehension system. Further, they favour a view of sentence processing in which processing operations involving constraints on the permissible indexing (or evaluation) of structures lag behind the processor's structure building operations. Hence, the results favour those grammatical theories which preserve this distinction over grammatical theories which provide a uniform characterisation of all syntactic well-formedness conditions.

**84–295 Freedman, Norbert and Bucci, Wilma** (State U. of New York). On kinetic filtering in associative monologue. *Semiotica* (The Hague), **34**, 3/4 (1981) [publ. 1983], 225–49.

A discussion of an experiment involving 40 American women which demonstrates the importance of kinetic filtering in the process of selection and planning during associative monologue. Two filtering strategies are evident: (i) the *shielding* strategy, a continuous activity which cuts across clause and pause boundaries, and which emerges more often in individuals who have difficulty in disembedding themselves from the onslaught of interference, and (ii) the strategy of *contrasting*, which has a generative function and can take place at the point at which the requirement for shielding is no longer present. Contrasting appears in pausing and in phases of altered state and is employed most often by individuals who experience a relatively differentiated self-object field during communication. Contrasting, when it occurs at the pause, is manifested not only by tactile self-stimulation, but involves the participation of gross muscle activity as well. A contrasting sequence is defined in which fast movements preceded lateralised self-touching; when this sequencing occurs at critical junctures, it tends to signify the inclusion of peripheral thought into language production.

**84–296 Hartley, J. and Trueman, M**. (U. of Keele). The effects of headings in text on recall and retrieval. *British Journal of Educational Psychology* (London), **53**, 2 (1983), 205–14.

This paper summarises the results from nine experiments on headings. The experiments centre on three main variables: (i) the purpose of the task (recall, search or retrieval from familiar and unfamiliar text); (ii) the position of the headings (marginal or embedded); and (iii) the nature of the headings (statements or questions). The results showed that headings aided recall, search and retrieval from the text used in these experiments, but that the position of the headings (marginal or embedded) had no effect. The kind of headings (questions or statements) had no differential effect with readers of different ability, but low-ability participants appeared to do better with headings as questions in the recall tasks.

**84–297 McLaughlin, Barry and others** (U. of California, Santa Cruz). Mothers' and fathers' speech to their young children: similar or different? *Journal of Child Language* (Cambridge), **10**, 1 (1983), 245–52.

The 'differential experience' hypothesis, that mothers provide more linguistic support for the child, whereas fathers place more demands on the child and thus raise his performance, has not been convincingly demonstrated. Research is described in which eight parents interacted in a free-play situation with their $1\frac{1}{2}$-year-old children, eight with $2\frac{1}{2}$-year-old children and eight with $3\frac{1}{2}$-year-old children. Age could thus be examined separately as a factor affecting parental linguistic behaviour.

No specific interaction was found in parental speech between age of child and sex of parent for any of the variables studied. In general, findings support the differential experience hypothesis. While there are many similarities, there are also several

differences in mothers' and fathers' speech to young children. Mothers' utterances tended to be longer, contained more *yes/no* questions, and contained less repetition than fathers' utterances. Mothers 'tune' their language more to the child's linguistic abilities than fathers do. Parental input to the developing child is probably related to the role the parent plays in the social life of the child.

**84–298  Miller, Joanne L.** (Northeastern U.) **and Eimas, Peter D.** (Brown U.). Studies on the categorisation of speech by infants. *Cognition* (Lausanne), **13**, 2 (1983), 135–65.

It is well known that complexities exist in the mapping between the acoustic information in the speech signal and the phonetic categories of adult language users. The authors investigated whether the same complexities exist in the mapping between the speech signal and the forerunners of these categories in infants. For two classes of complexity, it was found that the manner in which the categorisation of information for speech occurs was virtually identical in infant and adult listeners. These findings indicate that the infant possesses finely tuned linguistically relevant perceptual abilities, which undoubtedly facilitiate and shape the task of language acquisition.

**84–299  Motley, Michael T.** (U. of California at Davis) **and others.** Experimental verbal slip studies: a review and editing model of language encoding. *Communication Monographs* (Annandale, Va), **50**, 2 (1983), 79–101.

Spoken language is encoded extremely rapidly and by exceedingly complex cognitive operations, yet it is amazingly free of errors. In recent years there has been debate on the question of how the speech-production system guards itself against erroneous output. Our explanation is that the system is sufficiently sophisticated and rule-governed in its early message-formulation stages so as generally to avoid constructing anomalous plans. The authors have argued elsewhere, however, for an explanation whereby anomalous and other error plans are formulated during early production stages but are vetoed and corrected (i.e., 'edited') during later encoding stages. They have yet to synthesise these arguments into a coherent encoding model, however, and that is their purpose here. An 'Editing' model of speech production is presented, featuring pre-articulatory evaluations of impending speech segments via feedback to a spreading-activation lexicon which is susceptible to semantic, syntactic, phonological, and extralinguistic influences.

**84–300  Schouten, M. E. H.** Second language proficiency. *PRIPU* (Utrecht, The Netherlands), **8**, 1 (1983), 41–50.

Some people are capable of achieving a near-native command of a foreign language after puberty and thus of becoming near-bilinguals; others are not. The hypothesis was tested that such near-bilinguals have a more ambilateral language organisation, i.e. a smaller right-ear advantage than non-bilinguals; this was based on certain findings in the literature. A simple dichotic experiment failed to reveal any systematic

difference between near-bilinguals and non-bilinguals. A significant trend that revealed itself in the data turned out to be probably based on chance.

**84–301   Stewart, Mark A. and Ryan, Ellen Bouchard** (U. of Notre Dame, Ind). Attitudes toward younger and older adult speakers: effects of varying speech rates. *Journal of Language and Social Psychology* (Clevedon, Avon), **1**, 2, (1982), 91–109.

Undergraduates listened to tape-recorded voices of either younger (20–22 years) or older (60–65 years) male speakers who varied in their rate of speech (slow, medium, and fast). The listeners evaluated the speakers on various personality and social characteristics, made causal attributions for success or failure of the speakers in hypothetical situations, estimated speaker ages, and rated the voices on several speech parameters. Overall, faster speakers were evaluated more favourably than slower speakers, and older speakers were evaluated less favourably than younger speakers. As predicted, the estimated age of older speakers was elevated when they spoke slowly, but the strong evaluative effects predicted for rate among old speakers were not observed. The prediction that disconfirmation of expectations would lead to especially negative attitudes toward the slow-speaking younger speakers was confirmed, while the predicted favourable impact of fast speech for the older speakers received only slight support. Causal attributions were generally consistent with the other evaluations, with larger effects for speech rate than for age. The complex differences in attributions across the three situations examined suggest that the causal attribution paradigm provides a valuable framework within which to examine the situational determinants of effects for speaker age and rate of speech.

**84–302   Titone, Renzo**. Il bilinguismo nella scuola dell'infanzia: motivazioni psicolinguistiche e glottodidattiche. Appunti su alcuni presupposti. [Bilingualism in the kindergarten: psycholinguistic and pedagogic justifications. Notes on certain presuppositions.] *Rassegna Italiana di Linguistica Applicata* (Rome), **14**, 2 (1982), 1–14.

The first five years of a child's life are extremely important for his later development, not only emotional but cognitive and social; a number of prejudices (e.g. that intelligence is fixed and development predetermined) have led us greatly to under-estimate the child's intellectual capacity at this stage. His development is not simply linear and cumulative but hierarchical, passing through ever more complex reform-ulations of his experience. There is therefore a strong case for giving him enriched experience and structured teaching at the stage when he is peculiarly receptive.

Studies of bilingual education have shown that, on balance, the bilingual child gains not only linguistically but also cognitively and socially. Therefore the author strongly advocates pre-school bilingual education adapted to the abilities of each individual child as a great enrichment of a child's personality and intellect. In particular, since children can read as early as two-and-a-half, it follows that bilingual children should be taught to read in both languages.

**84–303   Townsend, David J.** (Montclair State Coll.). Thematic processing in sentences and texts. *Cognition* (Lausanne), **13**, 2 (1983), 223–61.

Since many of the semantic relations that exist between clauses in complex sentences also exist between sentences in texts, a description of complex sentence processing should generalise to sentence processing in texts. This paper explores the usefulness of such a generalisation for describing the on-line processing of sentences in narratives. Four experiments on the processing and retention of isolated complex sentences showed that connectives that signal a disruption in the causal and temporal order of propositions influence on-line processing and recall. Four additional experiments on the processing and retention of sentences in narratives showed that causal/temporal relations within complex sentences and between sentences affect sentence reading time, and the immediate and long-term memory organisation of propositions. The results suggest partially independent processing systems for both isolated complex sentences and sentences in texts. One set of processes operates on superficial information to obtain a literal propositional representation; another operates on propositional information to obtain a thematic representation of the sentence or text. In general, factors that obscure the thematic relevance of a clause or sentence also indirectly affect the processing of propositional meaning.

**84–304   Tyler, Lorraine Komisarjevsky** (Max-Planck-Inst. für Psycholinguistik, Nijmegen). *Cognition* (Lausanne), **13**, 3 (1983), 309–41.

This research focuses on how children integrate the antecedent of different kinds of anaphor into their on-going interpretation of an utterance, and on the kinds of cues they use to help them to do this. These issues were studied by examining the on-line processing of three types of anaphoric devices – repeated noun phrases, general terms and pronoun anaphors. The data showed that by the age of five, anaphoric mapping processes in general are well mastered, although all age-groups (5-, 7- and 10-year-olds and adults) found general term anaphors more difficult to interpret. The major developmental differences concerned the processing of anaphoric pronouns. For 5-year-olds, pronouns were primarily interpreted as devices which maintained the thematic subject of the discourse, but when there was no thematic subject they relied primarily on pragmatic plausibility in their assignment of pronominal co-reference. As children get older, they are able to take advantage of the lexical properties of pronouns, and all three sources of information – lexical, pragmatic inference and the thematic structure of the discourse – play contributory roles in the assignment of reference to a pronoun.

**84–305   Yule, George**. Interpreting anaphora without identifying reference. *Journal of Semantics* (Nijmegen) **1**, 4 (1982), 315–22.

By adopting an antecedent-determined account of the interpretation of anaphoric pronominals, we may misrepresent what is actually required in the interpretive process. If we adopt an antecedent plus predicate(s)-determined account, we may arrive at massively over-specified representations which would seen to create a substantial processing load. Since it can be observed that one of the characteristics

of conversational speech is the occurrence of antecedentless pronominals, it is suggested that the analytically required referential identity for anaphora resolution may not actually be an on-line processing requirement. What hearers may do is focus their attention on what is predicated of (at least some) pronominals, following the focus-marking of the speaker, and simply accept that there is, for the speaker, some referent or referential set for the pronominals encountered. Consequently, for the hearer, identifying the reference of those pronominals need not be a requirement in the interpretation of the speaker's utterance. That is, the interpretation of anaphors need not be, in some circumstances, a referential issue at all.

## PRAGMATICS

**84–306   Beattie, Geoffrey W.** The regulation of speaker turns in face-to-face conversation: some implications for conversation in sound-only communication channels. *Semiotica* (The Hague), **34**, 1/2 (1981) [publ. 1983], 55–70.

Observational studies suggest the following conclusions concerning turn-regulative behaviour: (1) general kinetic activity, whether on the part of speaker or listener, does not affect speaker-switching; (2) termination of gesticulations is implicated in some switches, though verbal cues are more important; (3) gesticulation functions as an attempt-suppression signal. Gaze facilitates switching to only a small extent, but does have this function especially when the overall level of gaze is low, as in conversations between strangers. In no-vision conditions, therefore, frequency of interruption (when carefully defined) should increase only at points where other turn-yielding cues are present, typically, at clause junctures. It is also to be expected that filled pauses, if substituting for gesticulation as an attempt-suppression device, should predominate at clause junctures in no-vision conditions.

**84–307   Berry, Margaret** (U. of Nottingham). Polarity, ellipticity and propositional development. *Nottingham Linguistic Circular* (Nottingham), **10**, 1 (1981) [publ. 1983], 36–63.

The author argues that proposals for classes of 'move' outlined in Coulthard and Brazil's *Exchange structure* are unsatisfactory both from the point of view of the coding of texts and the prediction of well-formedness. Examples which pose problems for Coulthard and Brazil are explained through a different approach which incorporates a revision of their proposals relating to eliciting and informing moves and a number of general assumptions from sentence grammars.

Sets of rules relevant to predicting the well-formedness of an exchange (i) *per se* and (ii) in combination with the situation in which it occurs are discussed. The author recommends adopting the exchange rather than the sentence as the highest unit of syntax, semantics and pragmatics.

**84–308 Castaños, Fernando** (CELE UNAM, Mexico). Consideraciones sobre el discurso científico y la definición. [Considerations of scientific discourse and the definition.] *Estudios de Linguistica Aplicada* (Mexico), **1**, 2 (1982), 6–30.

Attempts made by Selinker, Todd and Trimble (1976), and Widdowson (1978) to characterise the definition appear to be contradictory. A discussion of these attempts indicates a need to study the main functions of scientific discourse. After proposing three main functions (argumentation, facilitation and judgement), the problem of the definition is reconsidered. It is shown that the characterisations given to the definition by different authors correspond to definitions which fulfil different functions. A basic framework is provided in terms of an operational definition of the 'definition'. The information obtained is applied in the analysis of a piece of discourse taking into account the writers' intentions as well as possible reading strategies of the students.

**84–309 Esau, Helmut.** The 'smoking gun' tape: analysis of the information structure in the Nixon tapes. *Text* (The Hague), **2**, 4 (1982), 293–322.

This paper examines the cohesion in the 'smoking gun' tape, one on the released Watergate tapes. Through a careful analysis of four types of cohesion devices – reference, substitution, ellipsis, and lexical chaining – it is shown that an unusual amount of ambiguity and vagueness is found in the 'smoking gun' tape compared to that found in the 'backstage' conversations which have been recorded. Cohesion devices are, moreover, shown to have both a uniting and a separating function: they do not merely tie together discrete utterances into a continuous text, but they also serve to erect a partition between insiders and ousiders to a conversation. A discussion follows on how ambiguity and vagueness affect the understanding of conversations by examining the comprehension of texts against the background of two principles of human preception, referred to as 'snoopy effect' and 'duck–rabbit effect.' Through an analysis of a passage in Judge Sirica's book, the author illustrates the extent to which these two principles must have informed the final *gestalt* of the evidence in court.

**84–310 French, Peter** (Coll. of Ripon and York St John) **and Local, John.** Turn-competitive incomings. *Journal of Pragmatics* (Amsterdam), **7,** 1 (1983), 17–38.

A recurrent feature of multi-party conversation is that one speaker comes in prior to the completion of another's turn and can be heard as directly competing with the other for possession of the turn. That is, the incomer can be heard as wanting the floor to himself not when the current speaker has finished but now, at this point in the conversation. This analysis reveals that in managing talk of this kind participants methodically produce and monitor for certain prosodic features of speech. These features, which which have hitherto received scant attention in analyses of interaction, involve pitch-height, tempo and loudness variations. By deploying these prosodic features participants can constitute their incomings as competitive for the turn irrespective of the lexico-syntatic or illocutionary characteristics of their talk.

**84–311   Grimshaw, Allen D.** A cross-status dispute in ongoing talk: conflicting views of history. *Text* (Amsterdam), **2**, 4 (1982), 323–58.

Much study of 'naturally occurring conversation' continues to be focused on largely non-substantive and formal studies of such phenomena as negotiation and clarification of meaning in short, generally uncontexted, conversational fragments. The purpose of this paper is to examine an instance of recurrent and sustained disagreement, between interlocutors of discrepant power (they are not alone, and their 'audience' is occasionally drawn into the argument), on an issue of salient importance to both. The author is interested in such questions as: (1) what are the characteristics of talk about disagreement; (2) how are relations of power manifested in such talk; (3) what are the effects of an audience; (4) how is a 'side' disagreement maintained when there are shared interactional goals not related to the disagreement; (5) how can findings on conflict and power in talk be conceptualised sociologically and articulated with more traditional perspectives and understandings. The full data record is displayed, but only a small portion of the conversation is anlaysed in this abbreviated treatment.

**84–312   Hamel, Rainer Enrique** (Cele Unam, Mexico). Constitución y análisis de la interacción verbal. [Constitution and analysis of verbal interaction.] *Estudios de Linguistica Aplicada* (Mexico) **1**, 2 (1982), 31–80.

Discourse as social activity in the context of interaction is structured on various levels of organisation which are distinguishable and which suggest the elaboration of a differentiated model of analysis. The relevant contributions of various trends in sociolinguistics and pragmatics are integrated into each level of the model. This article elaborates the third level of the model. It analyses first the manner in which verbal action is constituted, starting from the process of constitution and interpretation of social signification in the context of interaction, and it secondly states how these processes then lead to the elaboration of patterns of discourse. Beginning with a brief survey of the relevant contributions from *The ethnography of communication* (Hymes) and *Speech act theory* (Austin, Searle, Wunderlich) the pattern of discourse is introduced as a basic unit of the model; lastly the pattern 'Asking–giving information about the way' is analysed.

**84–313   Marcondes de Souza, Danilo** (U. of Rio de Janeiro). Action-guiding language. *Journal of Pragmatics* (Amsterdam), **7**, 1 (1983), 49–62.

Language can be action-guiding in two senses: (i) when it is used by the speaker to direct or influence the hearer's behaviour; and (ii) when its directive character is derived from evaluative elements and institutional factors which enter into its constitution, and which may be beyond the speaker's and hearer's full recognition and control. In this second sense, language can be considered ideological since it has a manipulatory role as regards the behaviour of its users, who may be unaware of this directive function and of its presuppositions, consequence and full implications.

A critical method of reconstruction is proposed, capable of making explicit the ideological elements in language use. The basic features of the method are: a 'deep' description of the speech act performed, contrasted with the speaker's own description;

an analysis of the context and conventions of use governing the language; an appeal to notions such as indirect speech acts and conversational implicatures in order to explain how something which is implicit in the language and has to remain so, can have a directive function. This reconstructive interpretion is carried through in three stages: the first one considers the discourse formations and paradigms in which speech acts are performed, the second one determines the constitutive conventions of specific speech acts having this directive function, and finally, the last one analyses certain expressions in the sentence uttered as contributing to the directive function of the act.

**84–314   Murray, Dinah** (University Coll., London). Conversational concerns: issues. *Journal of Pragmatics* (Amsterdam), **7**, 1 (1983), 1–15.

Contributing to the common interest entails repairing perceived gaps in mutual knowledge. All discourse between members of a community of interest depends on their having a shared background of relevant knowledge. Gaps arise from ignorance or uncertainty relative to some common interest. In any given discourse a particular range of mutual knowledge will be relevant; its identification crucially depends on identifying current interests, since relevant background is what has made a difference to the outcome of the common interests at a given moment (the outcome of an interest may be its own changed state). Even the general background of shared vocabulary depends on membership in a language community with a history of like interests.

Issues are a species of interest to which more conversation is addressed than at first appears. This is illustrated with two samples of actual discourse. Questions and answers impose the obligation to contribute new information. If a question has been answered, or an issue resolved, further information (new or not) relevant only to that question or issue cannot be relevantly stated. Having been answered or resolved the question or issue ceases to be of common interest. Hence the preferences for 'the new' and for 'minimisation' that have been noted by divers writers.

**84–315   Nash, Walter** (U. of Nottingham). Openings and preconditions: a note on narrative. *Nottingham Linguistic Circular* (Nottingham), **10**, 1 (1981) [publ. 1983], 64–71.

The opening of Scott Fitzgerald's short story *The cut glass bowl* is shown to precondition the story that follows, that is, signals are given to the reader telling him what to expect; in this instance, a modern narrative set in a mythic perspective. Such signals may inhere in both form and content; thus, for example, mythic formulae akin to 'once upon a time' are combined with historic locations: 'in America, at the turn of the century'. The cut glass bowl itself is both a physical object in the narrative and also the mysterious agent of a curse on the family, and both these aspects are prefigured in the opening paragraphs.

**84–316   Nolan, Francis J.** The role of Action Theory in the description of speech production. *Linguistics* (The Hague), **20**, 3/4 (1982), 287–308.

Recently there has been an enthusiastic response by some of those concerned in modelling speech production to the adoption of a general conceptual framework

known as 'Action Theory', which was developed in answer to problems of muscular co-ordination in other areas of skilled motor behaviour such as locomotion. The enthusiasm is partly a reaction to the failure of previous models of speech production (now dubbed 'Translation' models) – ones which take as input to the speech production mechanism linguistic segments, and see the modelling of that mechanism in terms of the rules which convert those segments to the continuous gestures of speech – to provide a coherent and general account of the observed phenomena of speech. This paper examines critically the evidence adduced by e.g. Fowler *et al.* (1980) for adopting the 'Action Theory' perspective for speech, and at the same time points out where both 'old' and 'new' perspectives suffer from a too simplistic interpretation of the 'lower', phonetic end of linguistic models.

**84–317   Powell, Mava Jo** (U. of Sussex). The notion of literal meaning in speech act theory. *Nottingham Linguistic Circular* (Nottingham), **10**, 1 (1981) [publ. 1983], 1–23.

'Literal meaning' has not been given a consistent interpretation in speech act theory. Inconsistencies can be found in Austin's work, and in Searle's early writings on speech acts the term is used only informally, contrasting literal meaning with, for example, metaphorical and sarcastic uses of language. Later, however, Searle equates literalness with directness: literal speech acts are those in which sentence meaning and speaker meaning coincide. On this interpretation, literal expressions are of two types: those containing an explicit performative verb, and those in which a sentence type is used for the function traditionally associated with it (declaratives used to assert, for example). Though both these equations can be shown to be faulty, a useful definition of literal meaning emerges from speech act theory, expressed in terms of expectations of correlations between form and meaning and between constituent and sentence meaning, and which establishes a standard of meaning against which affectively non-neutral expressions can be interpreted.

**84–318   Tyler, Lorraine Komisarjevsky and Marslen-Wilson, William.** Processing utterances in discourse contexts: on-line resolution of anaphors. *Journal of Semantics* (Nijmegen), **1**, 4 (1982), 297–314.

The on-line interpretation of utterances in discourse contexts was investigated by varying the type of dependency between an utterance and its context. Listeners heard short sequences of utterances ending in incomplete fragments. The fragments varied in length and in whether their anaphoric linkage to the context (by repeated names, pronouns or zero anaphors) required inferences to be resolved. The subject's task was to name a visual continuation probe that appeared at the offset of the fragment. The differences between naming latencies to appropriate versus inappropriate probes was constant across conditions, and irrespective of whether or not inference-based processes were required to determine this preference. This was interpreted as showing that on-line speech processing is not necessarily slowed down by the use of inference to link utterances to their contexts.