langue and ***parole***. Terms introduced into LINGUISTICS by Ferdinand de Saussure (see SAUSSURIAN) to distinguish between language viewed as a complete system of forms and contrasts represented in the brains of the language-users, and language viewed as the act of speaking by an individual at a given time. It is similar to Chomsky's distinction between COMPETENCE and PERFORMANCE. See also IDIOLECT.

D.C.

lect. In SOCIOLINGUISTICS, any collection of linguistic phenomena which has a functional identity within a speech community, such as a regional dialect, or a social variety. A continuum of varieties is recognized, for example distinguishing between a variety which has the greatest prestige within a community (the 'acrolect') and that which is furthest away from this norm (the 'basilect'). D.C.

Bibl: D. Bickerton, *Dynamics of a Creole System* (Cambridge, 1975).

level. In LINGUISTICS, a fundamental theoretical term which is used in a number of senses, in particular (1) to denote an aspect of the structure of language regarded as susceptible of independent study; three levels (PHONETICS, SYNTAX, SEMANTICS) are generally recognized (but see also DUALITY OF STRUCTURE; FORM); (2) in GENERATIVE GRAMMAR, to characterize the distinction between DEEP STRUCTURE AND SURFACE STRUCTURE ('varying levels of depth'); (3) especially by some American linguists, in the sense of RANK.

D.C.

lexeme. A term used by some LINGUISTS (e.g. John Lyons) to describe the basic abstract lexical unit which underlies the different inflectional forms of a word, e.g. *sleep, slept, sleeps, sleeping* are variants of a single lexeme, *sleep*.   D.C.

lexical functional grammar. In LINGUISTICS, a grammatical theory that developed in the 1970s, in which grammatical relations are represented by means of a 'functional' analysis of sentence structure, and the LEXICON is assigned a more important role than it held in earlier models of TRANSFORMATIONAL GRAMMAR.   D.C.

Bibl: P. Matthews, *Syntax* (Cambridge, 1983).

lexicon. The dictionary component of a linguistic analysis, in which all information about the meaning and use of individual lexical items in a language is listed. It is particularly used with reference to the SEMANTIC component of a GENERATIVE GRAMMAR. The study of the properties of the lexicon is sometimes called *lexis*, sometimes *lexicology*. The latter must be distinguished from *lexicography*, the principles and practice of dictionary-making. In neo-Firthian (see FIRTHIAN) LINGUISTICS, lexis has a more restricted sense, referring only to the formal, not the semantic, characteristics of the lexicon.

D.C.

linguistics. The scientific study of language. As an academic discipline, the development of this subject has been recent and rapid, having become particularly widely known and taught in the 1960s. This reflects partly an increased popular and specialist interest in the study of language and communication in relation to human beliefs and behaviour (e.g. in THEOLOGY, PHILOSOPHY, INFORMATION THEORY, literary criticism), and the realization of the need for a separate discipline to deal adequately with the range and complexity of linguistic phenomena; partly the impact of the subject's own internal development at this time, arising largely out of the work of Chomsky (see CHOMSKYAN) and his associates, whose more sophisticated analytic techniques and more powerful theoretical claims gave linguistics an unprecedented scope and applicability.

Different branches may be distinguished according to the LINGUIST's focus and range of interest. A major distinction, introduced by Ferdinand de Saussure (see SAUSSURIAN), is between *diachronic* and *synchronic* linguistics, the former referring to the study of language change (also called *historical* linguistics), the latter to the study of the state of language at any given point in time. In so far as the subject attempts to establish general principles for the study of all languages, and to determine the characteristics of human language as a phenomenon, it may be called *general* linguistics. When it concentrates on establishing the facts of a particular language system, it is called *descriptive* linguistics. When its purpose is to focus on the differences between languages, especially in a language-teaching context, it is called *contrastive* linguistics. When its purpose is primarily to identify the common characteristics of different languages or language families, the subject goes under the heading of *comparative* (or *typological*) linguistics. (See also AGGLUTINATING; INFLECTING; ISOLATING; POLYSYNTHETIC LANGUAGE.)

When the emphasis in linguistics is wholly or largely historical, the subject is traditionally referred to as *comparative philology* (or simply *philology*), though in many parts of the world 'philologists' and

'historical linguists' are people with very different backgrounds and temperaments. The term *structural* linguistics is widely used, sometimes in an extremely specific sense, referring to the particular approaches to SYNTAX and PHONOLOGY current in the 1940s and 1950s, with their emphasis on providing DISCOVERY PROCEDURES for the analysis of a language's surface structure (see DEEP STRUCTURE); sometimes in a more general sense, referring to *any* system of linguistic analysis that attempts to establish explicit systems of relations between linguistic units in surface structure. When the emphasis in language study is on the classification of structures and units, without reference to such notions as deep structure, some linguists, particularly within GENERATIVE GRAMMAR, talk pejoratively of *taxonomic* linguistics.

The overlapping interests of linguistics and other disciplines has led to the setting up of new branches of the subject, such as ANTHROPOLOGICAL LINGUISTICS, BIOLINGUISTICS, COMPUTATIONAL LINGUISTICS, ETHNOLINGUISTICS, MATHEMATICAL LINGUISTICS, NEUROLINGUISTICS, PSYCHOLINGUISTICS, SOCIOLINGUISTICS. When the subject's findings, methods, or theoretical principles are applied to the study of problems from other areas of experience, one talks of *applied* linguistics; but this term is often restricted to the study of the theory and methodology of foreign-language teaching.   D.C.

Bibl: J. Lyons, *Introduction to Theoretical Linguistics* (London, 1968); G. C. Lepschy, *A Survey of Structural Linguistics* (London, 1970); D. Crystal, *Linguistics* (Harmondsworth and Baltimore, 1971); R. H. Robins, *General Linguistics* (Harlow, 2nd ed., 1971).

machine translation (also called *automatic* or *mechanical translation*). The use of a COMPUTER to facilitate the production of translations between natural languages. The PROGRAM contains a set of rules for analysing the orthography, identifying the vocabulary, and parsing the syntactic structure of both source and target languages, and another set of rules which places these in formal correspondence with each other so as to establish semantic equivalences. The urgent need for rapid translation in science and TECHNOLOGY has been the main motive for work in this area, and there has been limited success; but a great deal of human sub-editing still needs to take place before translations are acceptable, and in the more aesthetic areas of language use little progress has been made. The difficulties are not so much those of INFORMATION STORAGE AND RETRIEVAL as the inadequacy of available syntactic analyses of languages. Future progress is very much dependent on advances in the appropriate branches of theoretical LINGUISTICS. D.C.

markedness. An analytical principle in LINGUISTICS whereby pairs of linguistic features, seen as oppositions, are given different values of positive ('marked') and neutral or negative ('unmarked'). For example, in English there is a formal feature (adding an ending, usually *s*) which marks the plural of nouns: the plural is therefore the marked form, and the singular is the unmarked form. In recent GENERATIVE GRAMMAR, a theory of markedness has

been proposed: here, an unmarked property is one which accords with the general tendencies found in all languages, whereas a marked property is one which goes against these tendencies. D.C.

Bibl: A. Radford, *Transformational Syntax* (Cambridge, 1981).

maxims of conversation. Notions derived from the work of the philosopher H.P. Grice which are widely cited in current research in PRAGMATICS. The maxims are general principles which are thought to underlie the efficient use of language, and which together identify a general COOPERATIVE PRINCIPLE. Four basic maxims are identified. The *maxim of quality* states that speakers' contributions ought to be true. The *maxim of quantity* states that the contribution should contain more information than is necessary for the needs of the exchange. The *maxim of relevance* states that contributions should relate clearly to the purpose of the exchange. And the *maxim of manner* states that the contributions should be perspicuous — especially avoiding obscurity and ambiguity.   D.C.

Bibl: S. Levinson, *Pragmatics* (Cambridge, 1983).

May 1968. The 'events' of May 1968 in

meaning-relation (also called *sense relation* or *semantic relation*). In LINGUISTICS, (1) a specific semantic association regularly interrelating sets of words in the LEXICON of a language, e.g. synonymy, antonymy (see SEMANTICS, SEMANTIC-FIELD THEORY); (2) the semantically relevant interrelationships between grammatical classes and structures, as well as between single words, e.g. the relations postulated by CASE GRAMMAR.   D.C.

metalanguage. In LINGUISTICS, any technical language devised to describe the properties of language.   D.C.

metalinguistics. A term used by some LINGUISTS for the study of language in relation to other aspects of cultural behaviour. It is not, as etymology might suggest, the study of METALANGUAGE.   D.C.

microlinguistics. A term used by some LINGUISTS for the study of the phonological and morphological LEVELS (sense 1) of language; but also used in a general sense for any analysis or point of view which concentrates on describing the details of linguistic behaviour as against general trends or patterns (to which the term *macrolinguistics* is sometimes applied).

D.C.

MIT school. In LINGUISTICS, those scholars who, following A. N. Chomsky, Professor of Linguistics at the Massachusetts Institute of Technology, adopt a generative conception of language; see CHOMSKYAN; GENERATIVE GRAMMAR.

D.C.

Montague grammar. A movement in LINGUISTICS in the mid-1970s which owes its impetus to the thinking of the American logician Richard Montague (1930-70). The approach uses a conceptual apparatus derived from the study of the SEMANTICS of formal (logical) languages, and applies it to the study of natural languages. D.C.

Bibl: D.T. Dowty *et al.*, *Introduction to Montague Semantics* (Dordrecht, 1981).

morpheme. In LINGUISTICS, the minimal unit of grammatical analysis, i.e. the smallest functioning unit out of which words are composed. Morphemes are commonly classified into *free forms* (morphemes which can occur as separate words) and *bound forms* (morphemes which cannot so occur – traditionally called *affixes*); thus *unselfish* consists of the three morphemes *un*, *self*, and *ish*, of which *self* is a free form, *un-* and *-ish* bound forms. Morphemes are generally regarded as abstract units; when realized in speech, they are called *morphs*. Some morphemes are represented by more than one morph according to their position in a word or sentence, such alternative morphs being called *allomorphs*. Thus the morpheme of plurality represented orthographically by the *-s* in, e.g., *cots, digs*, and *forces* has the allomorphs represented phonetically by [s], [z], and [iz] respectively; in this instance the allomorphs result from the phonetic influence of the sounds with which the singular forms of the words terminate.　　　　　　　　　D.C.

morphology.

(1) In BIOLOGY, a term introduced by

(3) A branch of LINGUISTICS, traditionally defined as the study of word structure, but now more usually as the study of the properties of MORPHEMES and their combinations. D.C.

Bibl: P. H. Matthews, *Inflectional Morphology* (London, 1972).

morphophonology (sometimes called *morphonology* and, especially in American linguistic work, *morphophonemics*). In LINGUISTICS, the analysis and classification of the different phonological shapes available in a language for the representation of MORPHEMES. D.C.

network grammar. A class of grammars which have developed out of the concerns of COMPUTATIONAL LINGUISTICS and ARTIFICIAL INTELLIGENCE to show how language understanding can be simulated. A 'network' is a certain way of representing the structure of a sentence — a series of *states* (points at which alternative grammatical possibilities exist, in analysing a construction) and *paths* (the points of transition between states). The grammatical analysis of a text is known as a *parse*.

D.C.

neurolinguistics. A new and developing branch of LINGUISTICS, sometimes called *neurological linguistics*, which studies the neurological preconditions for language development and use in man. D.C.

normative.

In general, concerned with rules

(2) In LINGUISTICS, the adjectives *normative* and *prescriptive* are applied interchangeably to the largely outmoded view that there are absolute standards of correctness in language, and that the aim of linguistic analysis is to formulate rules of usage in conformity with them. This attitude is opposed to the aims of *descriptive* linguistics, which emphasizes the need to describe the *facts* of linguistic usage – how people actually speak (or write), not how they (or the grammarians) feel they ought to speak. D.C.

notional and **formal**. Adjectives applied respectively to grammatical analysis which does, and does not, assume a set of undefined extralinguistic notions as its basis. 'Notional' often has a pejorative force for LINGUISTS reacting against the widespread notionalism of traditional GRAMMAR.   D.C.

onomastics. The study of the origins and forms of proper names, especially of people and places.   D.C.

paralanguage. In suprasegmental PHONOLOGY, a range of vocal effects (e.g. giggle, whisper; see also INTONATION) that contribute to the tones of voice a speaker may use in communicating meaning. They are at present less susceptible of systematic description than the other areas of phonology, and are considered by many linguists to be marginal to the sound-system of the language. For some scholars, the term also subsumes kinesic phenomena (see SEMIOTICS). D.C.

performative. In LINGUISTICS, deriving from the work of the philosopher J.L. Austin (1911-60), a type of sentence where an action is 'performed' by virtue of a sentence having been uttered, e.g. *I apologize..., I promise..., I baptize you....* Performative verbs have a particular significance in SPEECH ACT theory, as they mark the ILLOCUTIONARY force of an utterance in an explicit way. Performative utterances are usually contrasted with *constative* utterances: the latter are descriptive statements which, unlike performatives, can be analysed in terms of TRUTH-VALUES.   D.C.

Bibl: S. Levinson, *Pragmatics* (Cambridge, 1983).

phatic language. In LINGUISTICS, a term deriving from the anthropologist Malinowski's phrase *phatic communion*, and applied to language used (as in comments on the weather or enquiries about health) for establishing an atmosphere rather than for exchanging information or ideas. D.C.

philosophical linguistics. A branch of LIN-GUISTICS which studies (a) the role of language in relation to the understanding and elucidation of philosophical concepts, and (b) the philosophical status of linguistic theories, methods, and observations. D.C.

Bibl: J. Lyons, *Semantics* (Cambridge, 1977).

phoneme. In LINGUISTICS, the minimal unit of PHONOLOGICAL analysis, i.e. the smallest unit in the sound-system capable of indicating contrasts in meaning; thus in the word *pit* there are three phonemes, /p/, /i/, /t/, each of which differs from phonemes in other words, such as *bit, pet,* and *pin*. Phonemes are abstractions (see ABSTRACT), the particular phonetic shape they take depending on many factors, especially their position in relation to other sounds in the sentence. These variants are called allophones, e.g. the /t/ phoneme has (amongst others) both an alveolar allophone (the sound made with

the tongue contacting the alveolar ridge above and behind the teeth, as in *eight*) and a dental allophone (the sound made with the tongue further forward, against the teeth, as in *eighth* because of the influence of the /th/ sound which follows).

In GENERATIVE GRAMMAR, the phoneme concept is not used: the sound features themselves (e.g. alveolar, nasal), referred to as *distinctive features*, are considered to be the most important minimal units of phonological analysis. D.C.

phonetics. A branch of LINGUISTICS which studies the characteristics of human sound-making; normally divided into *articulatory* phonetics (the processes of sound articulation by the vocal organs), *acoustic* phonetics (the transmission of vocal sound through the air, often referred to as ACOUSTICS), and *auditory* phonetics (the perceptual response to human sound). The term *instrumental* phonetics is used for the study and development of mechanical aids for the analysis of any of these aspects. The name *general* phonetics is often used to indicate the aim of making phonetic principles and categories as universal as possible. See also IPA; PHONOLOGY. D.C.

Bibl: K. L. Pike, *Phonetics* (Ann Arbor, 1943); D. Abercrombie, *Elements of General Phonetics* (Edinburgh and Chicago, 1967); J. D. O'Connor, *Phonetics* (Harmondsworth and Baltimore, 1973).

phonology. A branch of LINGUISTICS, sometimes called *phonemics*, which studies the sound-systems of languages. It is normally divided into *segmental* and *suprasegmental* (or *non-segmental*) phonology: the former analyses the properties of vowels, consonants, and syllables, the latter analyses those features of pronunciation which vary independently of the segmental structure of a sentence, e.g. INTONATION, rhythm, PARALANGUAGE. See also PROSODIC FEATURES. D.C.

Bibl: A. C. Gimson, *An Introduction to the Pronunciation of English* (2nd ed., London, 1970; N.Y., 1971).

pidgin. In SOCIOLINGUISTICS, a language with a markedly reduced GRAMMAR, LEXICON, and stylistic range, which is the native language of no one. Pidgin languages are formed when people from two different speech communities try to communicate (e.g. for trading purposes) without the aid of an interpreter. These languages flourish in areas of economic development, as in the pidgins based on English, French, Spanish, and Portuguese in the East and West Indies, Africa, and the Americas. Pidgins develop into CREOLES when they become the mother-tongue of a community.   D.C.

Bibl: P. Trudgill, *Sociolinguistics* (Harmondsworth, 1984).

polysynthetic (or *incorporating*). In comparative LINGUISTICS, adjectives sometimes applied to a type of AGGLUTINATING language (e.g. Eskimo) which displays a very high degree of synthesis in its word forms, single words typically containing as much structural information as entire sentences in ISOLATING languages.　　D.C.

pragmatics. In LINGUISTICS, the study of language from the viewpoint of the users, especially of the choices they make, the constraints they encounter in using language in social interaction, and the effects their use of language has on the other participants in the act of communication. This field, which deals with such diverse topics as politeness, conversational interaction, DEIXIS, PRESUPPOSITION and SPEECH ACTS, is attracting a great deal of interest in the 1980s, but it is not as yet capable of clear definition or delimitation from such areas as SEMANTICS and SOCIOLINGUISTICS. D.C.

Bibl: S. Levinson, *Pragmatics* (Cambridge, 1983); G.N. Leech, *Pragmatics* (London, 1983).

Prague School. In LINGUISTICS, a group of LINGUISTS (notably R. Jakobson and N. Trubetskoy) working in and around Prague in the late 1920s and early 1930s.

Their primary contribution was the formulation of an influential theory of PHONOLOGY in which sounds were analysed into sets of distinctive oppositions. More recently, a *neo-Prague* school has concentrated on developing syntactic theory in terms of the SAUSSURIAN notion of functionally contrastive constituents of sentences (see SYNTAGMATIC AND PARADIGMATIC): this is known as *functional sentence perspective (FSP)*.   D.C.

Bibl: J. Vachek (ed.), *A Prague School Reader in Linguistics* (London and Bloomington, 1966).

presupposition.

(1) L sun senpun the logically NECESS

(2) In LINGUISTICS, and especially in SEMANTICS and PRAGMATICS, what a speaker assumes in saying a particular sentence, as opposed to what is actually asserted. D.C.

Bibl: S. Levinson, *Pragmatics* (Cambridge, 1983).

productivity. In LINGUISTICS, a major defining characteristic of human language, the creative capacity of language-users to produce and understand an infinite number of sentences using a finite set of grammatical rules. In this respect, human language is often contrasted with the extremely limited range of signals which constitute the communication systems of animals. D.C.

prosodic feature. In PHONOLOGY, any systematic variation in pitch, loudness, speed, or rhythm that carries a difference in meaning. See also INTONATION. In FIRTHIAN linguistics, prosodic features (or *prosodies*) are any features which can be found throughout a sequence of sounds; thus if all the sounds in a word were nasal, the nasality would be considered a prosodic feature.   D.C.

psycholinguistics. A branch of LINGUISTICS which studies variation in linguistic behaviour in relation to psychological notions such as memory, PERCEPTION, attention, and acquisition.　D.C.

quantitative linguistics. A branch of LINGUISTICS which studies the frequency and distribution of linguistic units, using statistical techniques. The subject has both a pure and an applied side: the former aims to establish general principles concerning the statistical regularities governing the way words, sounds, etc. are used in the world's languages; the latter investigates the way statistical techniques can be used to elucidate linguistic problems, such as authorship identity. D.C.

Bibl: J. Lyons, *Introduction to Theoretical Linguistics* (Cambridge, 1968).

rank. A CONCEPT in some theories of LINGUISTICS which suggests that the relationship between linguistic units and structures is best viewed taxonomically in terms of composition, a particular structure being described in terms of units which operate at a 'lower' level or rank. It is an important concept in neo-Firthian (see FIRTHIAN) linguistics, where sentence, clause, group, word, and MORPHEME are placed on a *rank scale*. See also LEVEL.

D.C.

realistic grammar. In LINGUISTICS, an approach to grammatical analysis which aims to be psychologically real, in that it contributes to the explanation of such areas of linguistic behaviour as comprehension and memory. A contrast is intended between this approach and earlier, formal characterizations of GRAMMAR on the basis of intuition alone. The aim is to 'realize' a TRANSFORMATIONAL GRAMMAR within a psychological model of language use, so that the model genuinely represents users' knowledge of their language.

D.C.

Bibl: M. Halle *et al.*, *Linguistic Theory and Psychological Reality* (Boston, 1978).

recursion (or *recursiveness*). In LINGUISTICS, the attribute of rules which may be applied an indefinite number of times in the generation of sentences, e.g. a rule which would introduce an adjective before a noun. D.C.

reference. In LINGUISTICS, the relationship between linguistic forms and the objects, events, etc. *(referents)* in non-linguistic experience to which these forms refer. Most LINGUISTS are careful to distinguish reference from *sense*, which is a purely intra-linguistic property arising from the MEANING RELATIONS between words.   D.C.

register. (1) In neo-Firthian (see FIRTH-IAN) *linguistics*, a regular, situationally-conditioned, and distinctive range in language use, e.g. 'scientific', 'upper-class', 'formal' registers. (2) In COMPUTING, the fastest type of computer store.

D.C.; C.S.

relational grammar. A development of GENERATIVE GRAMMAR of the mid-1970s which takes as central the notion of grammatical *relations* (such as subject and object) rather than the categorial terms of earlier models (such as noun phrase and verb phrase). D.C.

Bibl: P. Matthews, *Syntax* (Cambridge, 1981).

Saussurian. Characteristic of, or a follower of, the principles of Ferdinand de Saussure (1857-1913), especially as outlined in his posthumous *Cours de linguistique générale* (Paris, 1916), translated by W. Baskin as *Course in General Linguistics* (New York, 1959). His conception of language as a system of mutually defining entities underlies much of contemporary structural LINGUISTICS. See also the distinctions between synchronic and DIACHRONIC, LANGUE AND PAROLE, SYNTAGMATIC AND PARADIGMATIC; see also COMPARATIST; SEMIOLOGY.

D.C.

scale-and-category grammar. A theory of GRAMMAR developed by Halliday and other neo-FIRTHIAN scholars in the early 1960s, and so named because it analyses grammatical patterns into a small number of theoretical *categories*, interrelating these through the use of *scales* (see, e.g., RANK). The grammatical analysis presupposes a general MODEL of language which distinguishes three basic LEVELS of *substance, form* and *context*.   D.C.

Bibl: M.A.K. Halliday, 'Categories of the Theory of Grammar' (*Word*, 17, 1961, pp. 241-92).

semantic-field theory. In LINGUISTICS, the view that the vocabulary of a language is not simply a listing of independent items (as the headwords in a dictionary would suggest), but is organized into areas, or *fields*, within which words interrelate and define each other in various ways. The words denoting colour are often cited as an example of a semantic field: the precise meaning of a colour word can only be understood by placing it in relation to the other terms which occur with it in demarcating the colour spectrum.   D.C.

semantics.

(1) The branch of LINGUISTICS that studies MEANING in language (and sometimes in other symbolic systems of communication). Much neglected by early linguists, it is now the central focus of theoretical interest, though no adequate semantic theory has yet been developed. One influential approach is that of *structural* semantics, the application of the principles of structural linguistics to the study of meaning through the notion of MEANING RELATIONS. See also COMPONENTIAL ANALYSIS. D.C.

Bibl: F. R. Palmer, *Semantics* (London, 1976).

semantic-field theory. In LINGUISTICS, the view that the vocabulary of a language is not simply a listing of independent items (as the headwords in a dictionary would suggest), but is organized into areas, or *fields,* within which words interrelate and define each other in various ways. The words denoting colour are often cited as an example of a semantic field: the precise meaning of a colour word can only be understood by placing it in relation to the other terms which occur with it in demarcating the colour spectrum. D.C.

semiotics. The study of patterned human behaviour in communication in all its modes. The most important mode is the auditory/vocal, which constitutes the primary subject of LINGUISTICS. The study of the visual mode – of systematic facial expressions and body gestures – is generally referred to as *kinesics*. The study of the tactile mode – e.g. inter-personal movement and touch activity – is sometimes called *proxemics*. Semiotics can also mean the study of sign and symbol systems in general; for which an alternative term is SEMIOLOGY. A similar approach to animal communication is called *zoosemiotics*.

D.C.

Bibl: T. A. Sebeok, A. S. Hayes, and M. C. Bateson (eds.), *Approaches to Semiotics* (The Hague, 1964).

sociolinguistics. A branch of LINGUISTICS which studies the relationship between language and society, e.g. the linguistic identity of social groups, the patterns of national language use. There is some overlap in subject-matter between this branch and ANTHROPOLOGICAL LINGUISTICS. See also DIALECTOLOGY. D.C.

Bibl: D. Hymes (ed.), *Language in Culture and Society* (N.Y., 1964); P. Trudgill, *Sociolinguistics* (Harmondsworth and Baltimore, 1973).

sound-law. In PHILOLOGY, a term referring to a hypothetical phonetic principle governing regular changes in sounds at different periods in a language's history. Such a hypothetical principle is derived from the analysis of uniform sets of correspondences operating between the sounds at these different periods.　　D.C.

speech act. In LINGUISTICS, a notion derived from the philosopher J.L. Austin (1911-60), to refer to a theory which analyses the role of utterances in relation to the behaviour of speaker and hearer in interpersonal communication. It is not an 'act of speech', in a purely physical sense, but a communicative activity (a 'locutionary' act), defined with reference to the intentions of the speaker while speaking (the ILLOCUTIONARY force of his utterances) and the effects he achieves on his listener (the 'perlocutionary' effect of the utterances). Several categories of speech acts have been proposed, such as *directives* (e.g. begging, commanding), *commissives* (e.g. guaranteeing, promising), and *expressives* (e.g. welcoming, apologizing).

D.C.

Bibl: S. Levinson, *Pragmatics* (Cambridge, 1983).

speech synthesis. The simulation of human speech by artificial means. Early attempts used mechanical MODELS of the human vocal tract, air being pumped through while the model was manipulated in accordance with the hypothesized processes of articulation. More recently, electronically generated noise has been modified so as to simulate the resonances of the different parts of the vocal tract. It is now possible, using COMPUTERS, to produce synthesized speech which sounds extremely natural; but the process is laborious and expensive, and the possibilities of producing general-purpose artificial talking devices are still very distant. The main importance of speech synthesis is as a technique in experimental PHONETICS for evaluating hypotheses about the perceptual analysis of speech: if a particular acoustic feature is believed to be a significant determinant of a sound's recognizability, this can be tested by synthesizing the sound with the feature present in varying degrees, and rating the products for intelligibility and naturalness. D.C.

stratificational grammar. A theory of GRAMMAR developed by S.M. Lamb in the 1960s, the name reflecting his choice of the term stratum to refer to the various interrelated LEVELS of linguistic structure recognized by the theory. D.C.

Bibl: S.M. Lamb, *Outline of Stratificational Grammar* (Washington, 1966).

structuralism.

(1) IN LINGUISTICS, any approach to the analysis of language that pays explicit attention to the way in which linguistic features can be described in terms of STRUCTURES and SYSTEMS. In the general, SAUSSURIAN sense, structuralist ideas enter into every school of linguistics. Structuralism does, however, have a more restricted definition, referring to the BLOOMFIELDIAN emphasis on the processes of segmenting and classifying the physical features of utterances (i.e. on what Chomsky later called SURFACE STRUCTURES), with little reference to the abstract, underlying structures (Chomsky's DEEP STRUCTURES) of languages or their meaning. It is this emphasis which the CHOMSKYAN approach to language strongly attacked; for GENERATIVE linguists, accordingly, the term is often pejorative. D.C.

Bibl: G.C. Lepschy, *A Survey of Structural Linguistics* (Oxford, 1982).

stylistics. A branch of LINGUISTICS which studies the characteristics of situationally-distinctive uses of language (see REGISTER), with particular reference to literary language, and tries to establish principles capable of accounting for the particular choices made by individuals and social groups in their use of language.   D.C.

Bibl: D. Crystal and D. Davy, *Investigating English Style* (London, 1969; Bloomington, 1970).

syntagmatic and **paradigmatic.** In LIN-GUISTICS, adjectives applied to two kinds of relationship into which all linguistic elements enter. Syntagmatic refers to the linear relationship operating at a given LEVEL between the elements in a sentence; paradigmatic refers to the relationship between an element at a given point within a sentence and an element with which, syntactically, it is interchangeable. For example, in the sentence *He is coming*, the relationship between *He, is, com-* and *-ing* is syntagmatic (at the level of MOR-PHOLOGY); the relationship between *He* and *She, is* and *will be*, etc. is paradigmatic. D.C.

syntax. In LINGUISTICS, a traditional term for the study of the rules governing the way words are combined to form sentences in a language. An alternative definition (avoiding the concept of *word*) is the study of the interrelationships between elements of sentence structure, and of the rules governing the arrangement of sentences in sequences (see DISCOURSE). See also CONSTITUENT ANALYSIS; DEEP STRUC-TURE AND SURFACE STRUCTURE; GRAM-MAR. D.C.

systemic grammar. A theory of GRAMMAR which Halliday developed from his earlier SCALE-AND-CATEGORY GRAMMAR, the new name reflecting his view of language as an organization of *system networks* of contrasts. D.C.

tagmemic grammar. A theory of GRAMMAR developed by K.L. Pike in the early 1950s. The name reflects the use the theory makes of the CONCEPT of the *tagmeme*, a device for conveying simultaneously formal and functional information about a particular linguistic unit. Thus, in the sentence *The cat sat on the mat*, the formal information that *the cat* is a noun phrase and the functional information that it is the subject of the sentence are combined in a single tagmemic statement, written S: NP. Many of the principles underlying Pike's linguistic theory have since been applied to the analysis of non-linguistic phenomena (see also EMIC), of particular note being his *Language in Relation to a Unified Theory of Human Behaviour* (The Hague, 2nd ed., 1967).

D.C.

trace theory. In GENERATIVE GRAMMAR since the late 1970s, an approach which provides a formal means of marking the place a grammatical constituent once held in the derivation of a sentence before the constituent was moved to another part of the sentence by a transformational rule. The position from which the constituent was moved is known as a 'trace'. D.C.

Bibl: A. Radford, *Transformational Syntax* (Cambridge, 1981).

traditional grammar. A summarizing (and often pejorative) term in LINGUISTICS, referring to the set of opinions, facts, and principles which characterize grammatical analysis not carried out within the perspective of modern linguistics; e.g. the NORMATIVE emphasis of traditional grammar contrasts with the descriptive emphasis within linguistics. D.C.

transformational grammar (TG). Any GRAMMAR which operates using the notion of a *transformation*, a formal linguistic operation which alters ('rewrites') one sequence of grammatical symbols as another, according to certain conventions, e.g. 'transforming' active sentences into passive ones. This type of grammar was first discussed by Noam Chomsky (see CHOMSKYAN) in *Syntactic Structures* (1957) as an illustration of a powerful kind of GENERATIVE GRAMMAR. Several models of TG have since been developed, but the theoretical status of transformations has been questioned, and some contemporary approaches do without them (e.g. GENERALIZED PHRASE STRUCTURE GRAMMAR).

D.C.

Bibl: R. Huddleston, *An Introduction to English Transformational Syntax* (London, 1976).

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Bibl: A. Radford, *Transformational Syntax* (Cambridge, 1981).

tree diagram. A two-dimensional diagram used in GENERATIVE GRAMMAR as a convenient means of displaying the hierarchical structure of a sentence as generated by a set of grammatical rules. D.C.

Bibl: R. Huddleston, *An Introduction to English Transformational Syntax* (London, 1976).

truth-conditional semantics. An approach to SEMANTICS which maintains that meaning can be defined in terms of the conditions in the real world under which a sentence may be used to make a true statement. It can be distinguished from approaches which define meaning in terms of the conditions on the use of sentences in communication, such as in SPEECH ACT theory. D.C.

Bibl: F. Palmer, *Semantics* (Cambridge, 1981).

typological linguistics. An approach in LINGUISTICS which studies the structural similarities between languages, regardless of their history, as part of an attempt to establish a classification (or TYPOLOGY) of languages. D.C.

Bibl: R.H. Robins, *General Linguistics: an Introductory Survey* (London, 1980).

universal.

(1) I

(2) In LINGUISTICS, (*a*) a linguistic feature claimed as an obligatory characteristic of all languages; (*b*) a type of linguistic rule which is essential for the analysis of any language. Chomsky called the former *substantive* universals, the latter *formal* universals. The establishment of linguistic universals is of considerable contemporary interest, particularly in relation to the question of how children learn a language. See also INNATENESS HYPOTHESIS. D.C.

valence (or *valency*).

(1) In **CHEMISTRY**, a **NUMBER** character-

(2) In LINGUISTICS (especially DEPENDENCY GRAMMAR) a term to refer to the number and type of bonds which syntactic elements may form with each other. A valency grammar presents a MODEL of a sentence containing a fundamental element (usually the verb) and a number of dependent elements (valents) whose number and type is determined by the valency attributed to the verb. For example, vanish is 'monovalent', as it can only take a subject, whereas scrutinize is 'bivalent', as it can take both a subject and an object.

D.C.

Bibl: P. Matthews, *Syntax* (Cambridge, 1981)

voiceprint. A visual representation of certain acoustic characteristics of the human voice, which it is claimed will uniquely identify an individual. The claims have been strongly attacked, particularly when voiceprinting was used as evidence in American courts of law in the mid 1960s, and there is as yet no general agreement as to its reliability. D.C.

Whorfian. IN LINGUISTICS, characteristic of, or a follower of, the views of Benjamin Lee Whorf (1897–1941), particularly the 'Sapir-Whorf hypothesis' (also propounded by Edward Sapir) that our conceptual categorization of the world is partly determined by the structure of our native language. The strong form of this hypothesis, that our conceptualization is largely or wholly determined in this way, has been rejected by most LINGUISTS. D.C.

Bibl: B. L. Whorf, ed. J. B. Carroll, *Language, Thought and Reality: Selected Writings* (London and N.Y., 1956).

word class. In LINGUISTICS, a class of words which are similar in their formal behaviour (e.g. noun, adjective). Such CLASSIFICATIONS are made to facilitate the economic statement of grammatical rules, and many different detailed systems have been proposed, the most familiar being the system of *parts of speech*, which uses notional as well as formal criteria (see FORM). Various general classifications have also been used, e.g. the dichotomy between *form* (or *function*, or *grammatical*) *words*, whose primary role is to indicate grammatical relationships, and *content* (or *lexical*) *words*, whose primary role is to provide referential meaning (see REFERENCE); or the distinction between *open classes* of words (i.e. classes whose membership is capable of indefinite extension, e.g. nouns) and *closed classes* (or *systems*) of words (classes containing a small, fixed number of words, e.g. conjunctions). A classification of linguistic forms not restricted to the notion of words is a *form class*.   D.C.