

# T

T see T-FORMS

**tableau** (*n.*), plural **tableaux** (*n.*) A term used in OPTIMALITY THEORY for a table of rows and columns used to demonstrate the EVALUATOR process. The top leftmost cell contains the INPUT REPRESENTATION to which CANDIDATE forms are being related. The relevant candidates are listed beneath this, with the optimal candidate indicated by a hand symbol (✚). The relevant CONSTRAINTS are listed across the top of the table, the higher RANKINGS being shown from highest on the left to lowest on the right. Solid lines between constraints indicate crucial rankings; broken lines indicate non-crucial rankings. Asterisks show constraint VIOLATIONS, with an exclamation mark showing a violation which completely eliminates a candidate. A shaded area indicates a constraint that has become irrelevant because of the violation of a higher ranked constraint. In the following tableau, taken from a 1997 introductory account by Diana Archangeli, a Yawelmani input form /xat-en/ ‘will eat’ is shown with four possible candidates. The optimal candidate is /xa.ten/ as its only violation is the lowest ranked constraint, NoCODA. A series of related tableaux, each presenting the role of an individual input, can be combined into a single **tableau des tableaux**. In the analysis of SYNTAX, the mechanism of a **subtableau** presents a partial structuring of the syntactic input.

| /xat-en  | PEAK | ONSET | *COMPLEX | FAITHC | FAITHV | NoCODA |
|----------|------|-------|----------|--------|--------|--------|
| ✚ xa.ten |      |       |          |        |        | *      |
| xa.te.n  | *!   |       |          |        |        |        |
| xa.te    |      |       |          | *!     |        |        |
| xa.te.ni |      |       |          |        | *!     |        |

**taboo languages** see AVOIDANCE LANGUAGES

**tacit** (*adj.*) A term used in GENERATIVE LINGUISTICS to characterize NATIVE-SPEAKERS’ knowledge of their LANGUAGE (their COMPETENCE). It refers to the fact

that their INTUITIONS about the way their language is constructed and functions are largely unconscious; it is usually used in the phrase **tacit knowledge**.

**tactic** (*adj.*), **tactics** (*n.*) see TAXIS

**tag** (*adj./n.*) (1) A term used in GRAMMATICAL DESCRIPTION to refer to a QUESTION structure (a **tag question**) usually consisting of an AUXILIARY VERB plus PRONOUN, attached to the end of a STATEMENT in order to convey a NEGATIVE or POSITIVE orientation. It may be invariable, as in French *n'est-ce pas*, German *nicht wahr*, or VARIABLE, as in English. In all cases, the INTONATION in which the tag is uttered determines its FUNCTION – the contrast between ‘asking’ and ‘telling’, illustrated by English *she's late, isn't she?* (‘I am asking you if she is late’) *v.* *she's late, isn't she?* (‘I am asking you to agree with me that she is late’). In English, in addition to this, the POLARITY of the tag is usually the reverse of that found in the MAIN CLAUSE: a positive clause takes a negative tag, and vice versa, e.g. *she's leaving, isn't she/she isn't leaving, is she*. Sometimes, two positive clauses are found (*she's leaving, is she*), and, very rarely, two negatives (*she doesn't know, doesn't she*). Some grammars also recognize **tag statements** (e.g. *That was a lovely drink, that was; He's a nice man, is John*) and there are some close connections between this CONSTRUCTION and such ‘reinforcing’ patterns as *They're all the same, these phoneticians!* See also CHECKING, COPYING.

(2) A GRAMMATICAL label attached to a word in a computer CORPUS to indicate its CLASS, in a procedure known as **tagging**. **Tags** may be added manually or automatically (the latter at present with varying degrees of success).

**tagma**, **tagmatics** (*n.*) see TAGMEMICS

**tagmemics** (*n.*) A system of LINGUISTIC analysis developed by the American linguist Kenneth Lee Pike (1912–2000), and used by the Summer Institute of Linguistics for the training of linguists. LANGUAGE is seen as comprising three MODES – PHONOLOGY, LEXICON and GRAMMAR. The relationship phonology: PHONEME and lexicon:MORPHEME is paralleled by grammar:**tagmeme**. This basic grammatical UNIT consists of a ‘functional slot’ within a CONSTRUCTION frame, and a CLASS of substitutable items that can fill this SLOT (‘fillers’). The identity of the tagmeme is in its correlation of FUNCTION and FORM, with both being explicitly labelled in the analysis (such functions as SUBJECT, PREDICATE, HEAD, MODIFIER and such forms as PRONOUNS, NOUN PHRASES, INFINITIVES). **Tagmemic analysis** involves a distinction between essential units (the tagmemes) and the non-essential units (the minimal ETIC units, called **tagmas**, which are analysed as **allotagmas** of the tagmeme). The identification and CLASSIFICATION of tagmas is the province of **tagmatics**. The constructions which result from the stringing together of tagmemes are known as **syntagmemes**. Grammatical units are organized hierarchically into LEVELS (MORPHEMES, WORDS, PHRASES, CLAUSES, SENTENCES, etc.).

Units of language description, at any level in this approach, can be analysed simultaneously as PARTICLE (in terms of FEATURES), WAVE (in terms of their status as VARIANTS MANIFESTED in different CONTEXTS) and FIELD (in terms of their DISTRIBUTION).

**tail** (*n.*) see TONE GROUP

**tamber, tambre** (*n.*) see TIMBRE

**tap** (*n.*) A term used in the PHONETIC classification of CONSONANT sounds on the basis of their MANNER OF ARTICULATION: it refers to any sound produced by a single rapid contact with the roof of the mouth by the TONGUE, resembling a very brief articulation of a STOP. It is commonly heard in many American English pronunciations of the medial /t/ or /d/ in *writer* and *rider*. Some phoneticians distinguish between taps and FLAPS in terms of the articulatory movements involved.

**target** (*n.*) (1) A term used in PHONETICS and PSYCHOLINGUISTICS to refer to a hypothetical ARTICULATORY state used as a reference point when describing SPEECH PRODUCTION in DYNAMIC terms. In CONNECTED SPEECH, the target articulatory features for a sound (e.g. ALVEOLAR, VOICING) may not be fully attained, because of the anticipatory influence of successive **target articulations**. The target MODEL postulates an idealized set of articulatory positions and a set of RULES which attempt to predict actual patterns of articulatory movement, taking into account such factors as speed of articulation, and the direction and distance between articulators. Similarly, models of SPEECH PERCEPTION have been proposed which use the construct of an **auditory target**, which enables the listener to identify the common factors in different ACCENTS, VOICE QUALITIES, etc.

(2) The LANGUAGE (OR VARIETY, etc.) which is the focus of a linguistic process of change is known as the **target language**, e.g. the language into which one is translating or interpreting, the language (or variety, etc.) being taught to foreign learners, and so on.

(3) In TRANSFORMATIONAL GRAMMAR, the CONSTITUENT affected by a transformation is sometimes referred to as the **target**. For example, the target for WH-MOVEMENT can be a NOUN PHRASE, as in *How many parcels will he send to London?*, a PREPOSITIONAL phrase, as in *In which book did you read about it?*, or certain other kinds of phrase. A similar use is found in GENERATIVE PHONOLOGY, where a rule can be triggered by one segment (the 'trigger segment') so as to apply to another (the 'target segment').

**ta-ta theory** see DING-DONG THEORY

**tautosyllabic** (*adj.*) A term sometimes use in PHONOLOGY to characterize a pattern of SEGMENTS which can be analysed as belonging to the same SYLLABLE; contrasts with **heterosyllabic**, where the segments belong to different syllables. For example, the question of VCV syllabification can be discussed in terms of whether it is the VC or CV sequences which are best analysed as tautosyllabic.

**taxeme** (*n.*) A term introduced by Leonard Bloomfield (see BLOOMFIELDIAN), on analogy with the PHONEME, to refer to a single minimal feature of GRAMMATICAL ARRANGEMENT. Examples of taxemes include WORD-ORDER, CONCORD, the grammatical use of PITCH, and the constituents of the ACTOR-ACTION-GOAL relationship. Combinations of taxemes, occurring as a conventional grammatical unit, are **tactic forms** (see TAXIS). Taxemes are distinguished in this approach from TAGMEMES, which are the smallest *meaningful* units of grammatical FORM.

**taxis** (*n.*) A general term used in PHONETICS and LINGUISTICS to refer to the systematic arrangements of UNITS in LINEAR SEQUENCE at any linguistic LEVEL. The commonest terms based on this notion are: **phonotactics**, dealing with the sequential arrangements of sounds; **morphotactics** with MORPHEMES; and **syntactics** with higher grammatical units than the morpheme. Some linguistic theories give this dimension of analysis particular importance (e.g. STRATIFICATIONAL grammar, where several levels of **tactic** organization are recognized, corresponding to the strata set up by the theory, viz. ‘hypophonotactics’, ‘phonotactics’, ‘morphotactics’, ‘lexotactics’, ‘semotactics’ and ‘hypersemotactics’). See also HARMONIC PHONOLOGY.

**taxonomic** (*adj.*) An application of the general sense of this term in biosystematics, to refer to an approach to LINGUISTIC analysis and DESCRIPTION which is predominantly or exclusively concerned with CLASSIFICATION. The basis of classification may be DIACHRONIC, AREAL, TYPOLOGICAL, FUNCTIONAL, etc., and the entities being classified may be linguistic FEATURES, ITEMS, UNITS, STRUCTURES – or whole VARIETIES, DIALECTS or LANGUAGES. The notion of **taxonomy** has been fruitfully applied in many areas of linguistics (SOCIOLINGUISTICS, HISTORICAL LINGUISTICS, SEMANTICS and COMPUTATIONAL LINGUISTICS in particular). The limitations of a taxonomic approach in linguistic analysis have, however, been emphasized by GENERATIVE linguists, who have criticized the overreliance of STRUCTURALIST (or ‘taxonomic’) linguistics on PROCEDURES of SEGMENTATION and classification. In particular, the use of this label is intended to indicate the inability of structural linguistics to provide a level of explanation in terms of DEEP STRUCTURE. Such phrases as ‘taxonomic PHONOLOGY’, ‘taxonomic SYNTAX’, etc., when used in generative linguistics, invariably have a pejorative implication.

**teaching grammar** see GRAMMAR (2)

**telegraphic speech** see TELEGRAPHIC SPEECH

**telegraphic speech** A style of SPEECH production in which FUNCTION WORDS and INFLECTIONAL endings tend to be omitted; also called **telegrammatic speech**. The term derives from the written style used in the days when pay-by-the-word telegrams were a common method of communication (*Send cheque Brighton*), and is still used to describe any ELLIPTICAL written style (e.g. in newspaper headlines or want-ads); but in linguistics it is more commonly encountered in relation to the SENTENCE STRUCTURES found in young children’s speech (*me kick ball*) and the reduced range of grammatical expression typical of one form of aphasia (see AGRAMMATISM).

**telic** (*adj.*) A term used in the GRAMMATICAL analysis of ASPECT, to refer to an event where the activity has a clear terminal point. Telic verbs include *fall*, *kick* and *make* (something). These verbs contrast with ATELIC verbs, where the event has no such natural end-point, as with *play* (in such a context as *the children are playing*). The phenomenon is referred to as **telicity**.

**template** (*n.*) (1) A term used in METRICAL PHONOLOGY for an abstract TREE structure which defines the basic STRUCTURAL possibilities of SYLLABLES in a

language. For example, an influential formulation of English syllable structure involves a HIERARCHICAL analysis into an ONSET + NUCLEUS + CODA, with the latter two elements being grouped as a RHYME, and each element consisting of two SEGMENTS.

(2) The term also has a central status in PROSODIC MORPHOLOGY, where it refers to a fixed PHONOLOGICAL shape imposed on varying SEGMENTAL material. **Templates** are defined in the grammar and realized in the derivation in terms of the units in the prosodic HIERARCHY: MORA, SYLLABLE, FOOT and prosodic WORD. The **templatic** target may be imposed on any morphological BASE (e.g. STEM, WORD, AFFIX). In REDUPLICATIVE constructions, for example, there might be a prefix with a constant CANONICAL shape (e.g. a heavy syllable), but a varying segmental shape (depending on the base to which it is attached). The **template satisfaction condition** states that the satisfaction of templatic constraints is obligatory and is determined by prosodic principles. This approach contrasts with segmentalist theories of template form, such as in (1) above.

(3) A general sense of the term ('a pattern established as a norm against which other patterns can be measured') also has a number of applications in specific LINGUISTIC or PHONETIC contexts. For example, in COGNITIVE GRAMMAR, connections between established patterns of neurological activity serve as templates for categorizing expressions. In automatic SPEECH RECOGNITION, templates are the stored, labelled SPECTRA (or the key features of spectra) against which an analysis of the signal to be recognized is matched (**template matching**).

**tempo** (*n.*) An application of the general sense of this term in PHONETICS and PHONOLOGY to refer to speed of speaking; alternatively known as RATE. Contrasts in the tempo of UTTERANCE are analysed in SUPRASEGMENTAL phonetics and phonology, along with PITCH and LOUDNESS variation, as part of the overall study of RHYTHM.

**temporal dialect** see DIALECT

**tenor** (*n.*) A term used in HALLIDAYAN classification of LANGUAGE VARIETIES (more fully **tenor of discourse**), referring to the relations among the participants in a language activity, especially the LEVEL of FORMALITY they adopt (colloquial, formal, etc.). Alternative labels which have been proposed for this area are STYLE or MANNER of discourse.

**tense** (*adj./n.*) (1) (**tns, TNS**) A CATEGORY used in the GRAMMATICAL description of VERBS (along with ASPECT and MOOD), referring primarily to the way the grammar marks the time at which the action denoted by the verb took place. Traditionally, a distinction is made between past, present and future tenses, often with further divisions (perfect, pluperfect, etc.). In LINGUISTICS, the relationship between tense and time has been the subject of much study, and it is now plain that there is no easily stateable relationship between the two. Tense FORMS (i.e. variations in the MORPHOLOGICAL form of the verb) can be used to signal MEANINGS other than temporal ones. In English, for example, the past-tense form (e.g. *I knew*) may signal a tentative meaning, and not past time, in some contexts (e.g. *I wish I knew* – that is, 'know now'). Nor is there a simple one-to-one relationship between tense forms and time: the present tense in English may help to refer to

future or past time, depending on CONTEXT (e.g. *I'm going home tomorrow*, *Last week I'm walking down this street . . .* (see HISTORIC PRESENT)). Furthermore, if tenses are defined as forms of the verb, it becomes a matter of debate whether a language like English has a future tense at all: constructions such as *I will/shall go*, according to many, are best analysed as involving MODAL AUXILIARY verbs, displaying a different grammatical FUNCTION (e.g. the expression of intention or obligation, which may often involve futurity). English illustrates several such problems, as do other languages, where tense forms, if they exist, regularly display analytic difficulties, because of overlaps between tense and other verbal functions, such as aspect or mood. Alternative terminology (e.g. 'past' *v.* 'non-past', 'future' *v.* 'non-future', 'now' *v.* 'remote') will often be needed.

(2) See TENSION.

**tensed** (*adj.*) A term used in GENERATIVE GRAMMAR to refer to a CLAUSE which contains a VERB that expresses a TENSE contrast (i.e. it is FINITE); it contrasts with **untensed**. The **tensed-sentence (S) condition** in EXTENDED STANDARD THEORY states that a CONSTITUENT cannot be moved out of or into a tensed SUBORDINATE clause. In GOVERNMENT-BINDING THEORY, this CONDITION has been replaced by conditions A and B of BINDING theory.

**tension** (*n.*) A term used in the PHONETIC classification of speech sounds, referring to the overall muscular effort used in producing a sound. The contrasts are labelled variously, e.g. FORTIS *v.* LENIS, **tense** *v.* lax. This contrast is viewed as particularly important in DISTINCTIVE FEATURE theories of PHONOLOGY, where 'tense' is one of the main features set up to handle variations in MANNER OF ARTICULATION. Tense sounds have been defined both ARTICULATORILY and ACOUSTICALLY: they are sounds produced with a relatively strong muscular effort, involving a greater movement of the (SUPRAGLOTTAL) VOCAL TRACT away from the position of rest (see FORTIS), and a relatively strong spread of acoustic energy. The VOWELS [i] and [u], for example, would be [+tense]; [ɪ] [ʊ] would be [-tense]. ASPIRATED and long CONSONANTS (see LENGTH) would be [+tense]. The opposite term in Jakobson and Halle's system (see JAKOBSONIAN) is LAX; in Chomsky and Halle's later system (see CHOMSKYAN), the term **non-tense** is also used: these are sounds produced with less muscular effort and movement, and which are relatively short and indistinct, involving a relatively weak spread of acoustic energy as in CENTRALIZED VOWELS. Subglottal tension in Chomsky and Halle's system is handled by the feature **heightened subglottal pressure**.

**term** (*adj./n.*) In RELATIONAL GRAMMAR, one of the three basic relations recognized by that theory: SUBJECT, DIRECT OBJECT and INDIRECT OBJECT. Term relations are distinguished from **non-term** relations, such as CHÔMEUR.

**terminal** (*adj.*) A term used in GENERATIVE LINGUISTICS to identify certain characteristics of the output of the SYNTACTIC COMPONENT of the GRAMMAR. A **terminal element** or **terminal symbol** refers to the units employed in the syntactic REPRESENTATION of a SENTENCE, after all the RULES have been applied, viz. the MORPHEMES, FORMATIVES, FEATURES, such as *the*, *-en*, *+*, *#*, *man*. Terminal symbols are distinguished from **non-terminal** (or 'auxiliary') elements, which are used in formulating rules. The former are usually written in lower-case letters, the latter

in upper-case (e.g. NP, VP). A **NODE** which does not **DOMINATE** other categories is a **terminal node**. A **STRING** consisting of terminal elements is known as a **terminal string**, i.e. the final string generated by a **PHRASE-STRUCTURE** grammar.

**terminal analogs** see **SPEECH SYNTHESIS**

**terminal juncture** see **JUNCTURE (1)**

**terminal node** see **NODE**

**terminal set** see **METRICAL GRID**

**terminal string/symbol** see **TERMINAL**

**termination** (*n.*) see **EXTRASYLLABIC (1)**

**term of address** see **ADDRESS**

**tertiary response** A term introduced into **LINGUISTICS** by Leonard Bloomfield (see **BLOOMFIELDIAN**) to refer to the views people display when their utterances about language (their **SECONDARY RESPONSES**) are themselves subjected to evaluation. For example, people who say, 'That dialect is ugly/primitive', etc., are making a secondary response; if this is disputed, then their attempt to explain the basis of their statement (or, indeed, their general emotional reaction) would constitute a tertiary response.

**tertiary stress** see **STRESS**

**tessitura** (*n.*) A term taken over by some **PHONETICIANS** from musical terminology and used to refer to the characteristic compass, or **PITCH** range, of a person's voice, when speaking normally. People are often impressionistically classified in this way (e.g. a 'very high-pitched' voice), as are languages.

**test** (*n.*) see **ACCEPTABILITY, COMMUTATION, MINIMAL PAIR**

**text** (*n.*) A pre-theoretical term used in **LINGUISTICS** and **PHONETICS** to refer to a stretch of language recorded for the purpose of analysis and description. What is important to note is that texts may refer to collections of written *or* spoken material (the latter having been transcribed in some way), e.g. conversation, monologues, rituals and so on. The term **textual meaning** is sometimes used in **SEMANTICS** as part of a classification of types of **MEANING**, referring to those factors affecting the interpretation of a **SENTENCE** which derive from the rest of the text in which the sentence occurs – as when, at a particular point in a play or novel, a sentence or word appears whose significance can only be appreciated in the light of what has gone before.

The study of texts has become a defining feature of a branch of linguistics referred to (especially in Europe) as **textlinguistics**, and 'text' here has central theoretical status. Texts are seen as language units which have a definable communicative function, characterized by such principles as **COHESION, COHERENCE**

and informativeness, which can be used to provide a FORMAL definition of what constitutes their identifying **textuality** or **texture**. On the basis of these principles, texts are classified into **text types**, or **genres**, such as road signs, news reports, poems, conversations, etc. The approach overlaps considerably with that practised under the name of DISCOURSE analysis, and some linguists see very little difference between them. But usage varies greatly. Some linguists make a distinction between the notions of 'text', viewed as a physical 'product', and 'discourse', viewed as a dynamic process of expression and interpretation, whose function and mode of operation can be investigated using PSYCHOLINGUISTIC and SOCIO-LINGUISTIC, as well as linguistic, techniques. A similar distinction sees 'text' as a notion which applies to SURFACE STRUCTURE, whereas 'discourse' applies to DEEP STRUCTURE. From the opposite viewpoint, some linguists have defined 'text' as an abstract notion, 'discourse' being its REALIZATION. Apart from these theoretical distinctions, there is also a tendency for texts to be thought of as monologues, usually written, and often very short (e.g. *no through road*), whereas discourses are often thought of as dialogues, usually spoken and of greater length.

**text deixis** see DEIXIS

**textlinguistics** (*n.*) see TEXT

**text-to-speech** (*adj.*) A term used in PHONETICS and COMPUTATIONAL LINGUISTICS to refer to a system of SPEECH SYNTHESIS which can transform a conventional orthographic representation of LANGUAGE into its spoken equivalent. Such a system begins by carrying out a MORPHOLOGICAL and PHONOLOGICAL analysis of an input text, taking into account such matters as REGULAR *v.* irregular forms. Letter-to-sound RULES and other special features generate WORD-level phonological representations, which are then transformed into a PHONETIC REPRESENTATION (incorporating features of CONNECTED SPEECH, including sentence PROSODY). Synthesis takes place using a rule-based system, the output being provided by a terminal analog synthesizer.

**textuality, texture** (*n.*) see TEXT

**T forms** An abbreviation used in SOCIOLINGUISTICS as part of the study of terms of address in various LANGUAGES. Based on the distinction between *tu* and *vous*, the alternative forms of 'you' in French, and on similar CONTRASTS in many other languages (e.g. German *du/Sie*, Russian *ty/vy*), an OPPOSITION is set up between familiar (T) and formal (V) second-PERSON VERB and PRONOUN FORMS. Hypotheses are then developed concerning the system of FORMALITY in use in the languages.

**that-clause** A term used in some MODELS of English GRAMMATICAL DESCRIPTION to refer to a DEPENDENT DECLARATIVE CLAUSE, introduced by *that*. The main types are: SUBJECT clauses, e.g. *that she wrote surprises me*; OBJECT clauses, e.g. *she said that she wrote*, APPositional clauses, e.g. *your view, that she'll write, is rubbish*; subject COMPLEMENT clauses, e.g. *the trouble is that it won't happen*; ADJECTIVAL complement clauses, e.g. *I'm certain that he'll go*; and *that-*



RELATIVE clauses, e.g. *The book that I sold . . .* The *that* may be omitted in some circumstances, e.g. *he said he would go*.

**that-trace constraint/filter/phenomenon** A term in GENERATIVE GRAMMAR, originally in EXTENDED STANDARD THEORY, used in connection with such constructions as \**Who do you know that – saw Bill?*, which involve extraction of a SUBJECT from a CLAUSE introduced by a COMPLEMENTIZER.

**thematic** (*adj.*), **thematization** (*n.*) see THEME, THEMATIC ROLE

**thematic role** In GOVERNMENT-BINDING THEORY, a term used for the role performed by each ARGUMENT (i.e. SUBJECT or COMPLEMENT) of a PREDICATE, defined with reference to a restricted universal set of **thematic functions** (or **thematic relations**); also known as a **theta role**. Thematic roles are usually interpreted in the same way as semantic cases in CASE GRAMMAR, such as AGENT, PATIENT, LOCATIVE, SOURCE and GOAL.

**theme** (*n.*) A term used in LINGUISTICS as part of an analysis of the structure of SENTENCES (their **thematic structure**): it refers, not to the subject-matter of a sentence (its everyday MEANING), but to the way speakers identify the relative importance of their subject-matter, and is defined as the first major CONSTITUENT of a sentence (seen here as a STRING of constituents). There is no necessary correspondence with a FUNCTIONAL grammatical ELEMENT (though in English theme and SUBJECT often coincide) e.g. *The man is going, His hair I can't stand, Smith her name was, Under no condition will he . . .* The process of moving an element to the front of the sentence in this way ('fronting'), to act as theme, is known as **thematization** (sometimes TOPICALIZATION) or **thematic fronting**. Some linguists systematically distinguish this notion from other ways of analysing the organization of the sentence structure of messages, such as the TOPIC/COMMENT distinction, or an analysis in terms of INFORMATION structure. See THEMATIC ROLE.

In the PRAGUE SCHOOL approach to linguistics, theme is opposed to RHEME, producing a distinction similar to that of topic/comment, but interpreted with reference to the theoretical framework of FUNCTIONAL SENTENCE PERSPECTIVE. In this theory, the theme is defined as the part of a sentence which adds least to the advancing process of communication (it has the lowest degree of COMMUNICATIVE DYNAMISM); in other words, it expresses relatively little (or no) extra meaning, in addition to what has already been communicated. The rheme, by contrast, carries the highest degree of communicative dynamism. Various transitional expressions, neither 'thematic' nor 'rhematic', are also recognized.

**theolinguistics** (*n.*) A term which has been used for the study of the relationship between LANGUAGE and religious thought and practice, as illustrated by ritual, sacred texts, preaching, doctrinal statements and private affirmations of belief. The distinctiveness of religious language usually takes the form of a special set of VARIETIES within a language, but special scripts and languages (as with Ge'ez in the Ethiopian Church) may also be found, and considerable attention needs to be paid to PHILOLOGICAL enquiry, given the way much religious language takes its origin from old texts and practices.

**theorem** (*n.*) see AXIOM

**theoretical grammar** see GRAMMAR (2)

**theoretical linguistics** see LINGUISTICS

**theory** (*n.*) see AXIOM, GRAMMAR (2), LINGUISTICS, MODEL (1), POSTULATES, PRIMITIVE

**there-insertion** A term used in TRANSFORMATIONAL GRAMMAR for a transformation which relates pairs of sentences by INSERTING a *there*-element, such as *A baby is in the bath* → *There is a baby in the bath*. The latter type of sentence is often referred to as EXISTENTIAL.

**theta role** see THEMATIC ROLE

**theta theory** One of the (sub-)theories of GOVERNMENT-BINDING THEORY. Its main principle is the **theta-criterion**, which requires that every ARGUMENT is assigned just one THETA ROLE and that every theta role is assigned to just one argument. Its main role is to determine the positions to which NP-MOVEMENT is possible.

**third person** see PERSON

**thirteen men rule** see REVERSAL

**tier** (*n.*) A term in HIERARCHICAL MODELS of PHONOLOGY (see NON-LINEAR PHONOLOGY) for a level of phonological REPRESENTATION. For example, in AUTOSEGMENTAL phonology, parallel tiers of phonological SEGMENTS are proposed, each tier consisting of a STRING of segments, and representing a sequence of ARTICULATORY gestures or ACOUSTIC TRANSITIONS. In a TONE language, for instance, tones are represented on one tier, which specifies FEATURES of tone and nothing else; other (non-tonal) features are represented on a separate tier. Features cannot appear on more than one tier, and thus tiers can be defined by the features found in them, as in the case of the PHONEMIC tier, the SKELETAL TIER and the X-TIER. The number of tiers varies between models. In PARTICLE PHONOLOGY, for example, there are five: syllabic, nucleus, timing, root and particle tiers. Terminology varies greatly among different models, as in the case of the tier handling information about articulation, which has been called a 'featural', 'gestural', 'melodic', 'segmental' and 'articulatory' tier.

**timbre** (*n.*) The attribute of auditory sensation in terms of which a listener can judge the dissimilarity between sounds of otherwise identical PITCH, LOUDNESS and LENGTH; sometimes spelled **tambre** or **tamber**. Acoustically, the sensation of timbre derives from the set of HARMONICS involved in the production of a TONE. The best examples can be found in the characteristic timbres, or 'tonal qualities', of different instruments of the orchestra; but a similar set of timbres can be established to distinguish between the frequency characteristics of individual sounds (such as VOWELS, FRICATIVES) or individual speakers (as one of the features

of VOICE QUALITY). An alternative term, more widely used in the context of SEGMENTAL studies, is QUALITY, as in VOWEL QUALITY.

**timing** (*adj./n.*) (1) This general term is applied in PHONETICS and PSYCHOLINGUISTICS to the temporal constraints on the ARTICULATION and SEQUENCING of sounds in SPEECH PRODUCTION. Timing phenomena are therefore of relevance for an understanding of both SEGMENTAL and SUPRASEGMENTAL phonetics and PHONOLOGY: timing is involved in the co-ordination of musculature required to produce an individual sound, in the programming of PHONOTACTIC SEQUENCES, and in such notions as RHYTHM and INTONATION.

(2) The term is also found in some HIERARCHICAL models of PHONOLOGY, as the name of a tier of REPRESENTATION (though its application varies among theories). In PARTICLE PHONOLOGY, for example, the **timing tier** represents SYLLABLE WEIGHT (MORAS). In AUTOSEGMENTAL PHONOLOGY it describes a specific conception of the SKELETAL TIER (see X-TIER).

**tip** (*n.*) The end point of the TONGUE, also known as the APEX; used in the articulation of a few speech sounds, such as the TRILLED [r].

**tip-of-the-tongue phenomenon** The everyday sense of this phrase is found in PSYCHOLINGUISTICS, where the phenomenon is subjected to experimental investigation as part of a theory of SPEECH PRODUCTION. It is shown that people having a tip-of-the-tongue experience are able to recall certain general characteristics of the WORD, e.g. the number of SYLLABLES it has, or its STRESS pattern; also some PHONETIC SEGMENTS are recalled more readily than others. These results suggest that words vary in the ACCESSIBILITY of their PHONOLOGICAL REPRESENTATION in the brain, and that certain features of word structure are stored independently of others.

**to-infinitive** (*n.*) see INFINITIVE

**token** (*n.*) see TYPE (2)

**tonal geometry** see TONE (1)

**tonality** (*n.*) see TONE (1)

**tonal polarity** see POLARITY (1)

**tone** (*n.*) (1) A term used in PHONOLOGY to refer to the DISTINCTIVE PITCH level of a SYLLABLE. In the study of INTONATION, a sequence of tones constitutes a CONTOUR or TONE UNIT. In HALLIDAYAN analysis, the division of an utterance into tone groups is called **tonality**. The most PROMINENT tone in a tone unit may be referred to as a NUCLEAR tone. The organization of tonal structure within a NON-LINEAR PHONOLOGICAL model (the nature of tonal FEATURES and the location of tonal LINKAGE) is sometimes called **tonal geometry**.

The historical development of a tonal language from an **atonal** one is known as **tonogenesis**. In many LANGUAGES, the tone carried by a WORD is an essential feature of the MEANING of that word (**lexical tone**), e.g. in Beijing Mandarin

Chinese the word *ma* when pronounced in a level tone means ‘mother’, and in a FALLING–rising tone means ‘horse’ – two out of four possible tone contrasts in that language. Such languages, where word meanings or grammatical CATEGORIES (such as TENSE) are dependent on pitch level, are known as **tone languages**. The unit which carries the tone (e.g. syllable, MORA) is called the **tone-bearing unit**. Many languages of South-East Asia and Africa are tone languages, illustrating several types of **tonal** organization. In such languages, sequences of adjacent tones may influence each other phonetically or phonologically, e.g. a word which in isolation would have a low tone may be given a higher tone if a high-tone word follows: such a phenomenon is sometimes called **tone** (or **tonal**) **sandhi**.

The study of the forms and uses of tone in language is sometimes called **tonology**. The study of the phonetic properties of tone, in its most general sense, is sometimes referred to as **tonetics**. In the EMIC tradition of study, contrastive tones are classified as **tonemes**, and the study of such tones is known as **tonemics**. Features of tone, such as ‘high’, ‘low’, and ‘mid’, are proposed by DISTINCTIVE FEATURE theories of phonology. Tones which vary in PITCH range are often called ‘contour’, ‘kinetic’ or ‘dynamic’ tones; those which do not vary in range are ‘static’ or ‘level’ tones. See also CONTOUR, POLARITY (2), TONIC.

(2) In ACOUSTIC PHONETICS, a sound with sufficient regularity of vibration to provide a sensation of PITCH. Sounds which lack this regularity are characterized as NOISE. A **pure tone** is produced by a waveform whose pattern of vibration repeats itself at a constant rate; such tones are typically produced by electronic sources or tuning forks. When two or more tones of different FREQUENCIES combine, the result is a **complex tone**. Most sounds, including those of speech, involve complex tones, with different PERIODIC patterns.

(3) In PARTICLE PHONOLOGY, **tonality** refers to particles which represent PALATALITY and LABIALITY, and is distinguished from APERTURE.

**tone group** see TONE UNIT

**tone language** see TONE (1)

**toneme, tonemics** (*n.*) see TONE (1)

**tone sandhi** see TONE (1)

**tonetics** (*n.*) see TONE (1)

**tone unit** A term used by some INTONATION analysts, particularly those working within the British tradition, to refer to a distinctive sequence of PITCHES, or TONES, in an utterance; also called a **tone group**. The essential feature of a tone unit is the NUCLEAR tone, the most PROMINENT tone in the sequence; and this may be accompanied, depending on the length of the utterance, by other components, such as the **head** (i.e. the sequence of SYLLABLES between the first STRESSED syllable and the nuclear tone), **pre-head** (i.e. unstressed syllables at the very beginning of the tone unit) and **tail** (i.e. the syllables following the nuclear tone). This terminology can be illustrated by the sentence *the | man 'bought a | nèw | 'clock|*, where the sequence of pre-head/head/nucleus/tail is marked by vertical lines. A tone unit usually corresponds to a CLAUSE or SENTENCE, but may

be used on any grammatical unit, e.g. in an extremely irritated version of the above sentence, there might be several tone units, as in *the mán | bóught | a néw | clóck |*.

**tongue** (*n.*) (1) From the PHONETIC point of view, the importance of the tongue is that it is the organ of articulation most involved in the production of speech sounds – all the VOWELS and the majority of the CONSONANTS (that is, excluding those made at the lips and in the throat). Different parts of the tongue are involved in articulating these sounds, and it has proved convenient to classify sounds with reference to these areas. From front to back, it is usual to distinguish the TIP (OR APEX), BLADE (OR FRONT), CENTRE (OR ‘top’), BACK (OR DORSUM) and ROOT. The GROOVE running down the centre of the tongue is also significant, in that several sound contrasts can be made by altering its shape. Plotting tongue movements is difficult visually or kinaesthetically, but advances in phonetic instrumentation, such as the ELECTROPALATOGRAPH, have enabled many of these movements to be displayed with accuracy.

(2) In Chomsky and Halle’s DISTINCTIVE FEATURE theory of PHONOLOGY (see CHOMSKYAN), **tongue-body features** constitute one of the categories set up to handle variations in PLACE OF ARTICULATION (CAVITY features). The placement of the body of the tongue is characterized with reference to three features, all seen as OPPOSITIONS: HIGH, LOW and BACK.

**tongue-slip** (*n.*) The everyday sense of this phrase is found in PHONETICS and PSYCHOLINGUISTICS, where the phenomenon is studied as part of a theory of SPEECH PRODUCTION; also called a **slip of the tongue**. Such slips seem not to be random; e.g. SEGMENTS occurring initially in SYLLABLES seem to interfere only with other syllable-initial segments. The suggestion is that tongue-slips are not just ERRORS OF ARTICULATION, but are rather the results of incorrect neural programming (‘slips of the brain’, as some would say). The analysis of these errors motivates hypotheses about the properties of the NEUROLINGUISTIC control governing speech (see ACCESSIBILITY). See ANTICIPATION.

**tonic** (*adj./n.*) A term used by some INTONATION analysts, particularly those working within the British tradition, to refer to the SYLLABLE in a TONE UNIT which carries maximal PROMINENCE, usually owing to a major PITCH change. The **tonic syllable** is also referred to as the ‘NUCLEAR syllable’, or ‘nucleus’, in this tradition. Most words in a tone unit can carry the tonic syllable, depending on the meaning intended, although the usual position for this is at or towards the end of a sequence. Compare the different emphases in *The woman was walking to town* with *The woman was walking to town* and *The woman was walking to town*. The change in **tonicity** gives the sentence different implications (e.g. ‘*The woman*, not the man, was walking . . .’), an important aspect of communication in conversation, where it draws attention especially to the NEW INFORMATION in a sentence.

**tonogenesis** (*n.*) see TONE (1)

**tonology** (*n.*) see TONE (1)

**top-down** (*adj.*) see BOTTOM-UP

**topic** (*n.*) (1) A term used in SEMANTICS and GRAMMAR as part of an alternative binary characterization of SENTENCE STRUCTURE to that traditionally found in the SUBJECT/PREDICATE distinction; the opposite term is COMMENT. The topic of a sentence is the entity (person, thing, etc.) about which something is said, whereas the further statement made about this entity is the comment. The usefulness of the distinction is that it enables general statements to be made about the relationships between sentences which the subject/predicate distinction (along with other contrasts of this type) obscures. The topic often coincides with the subject of a sentence (e.g. *A visitor/ is coming to the door*), but it need not (e.g. *There's the driver/ who gave you a lift*), and, even when it is a subject, it need not come first in a sentence (e.g. *John Smith my name is*). It is sometimes referred to as the 'psychological subject'. Some languages mark the topic of a sentence using PARTICLES (e.g. Japanese, Samoan). The topic/comment contrast is, however, sometimes difficult to establish, owing to the effects of INTONATION (which has a 'competing' INFORMATION-signalling function), and in many types of sentence the analysis is more problematic, such as in COMMANDS and QUESTIONS. **Topicalization** takes place when a CONSTITUENT is moved to the front of a sentence, so that it functions as topic, e.g. *The answer I'll give you in a minute* (see LEFT DISLOCATION).

(2) The phrase **topic sentence** is used in traditional studies of the structure of paragraphs, to refer to the sentence which introduces the paragraph's theme. Linguistic investigation of this and related notions is in its early stages, but TEXT analysis of paragraphs indicates that the SEMANTIC and SYNTACTIC complexities of paragraph structure are much greater than this simple judgement suggests.

**topicalization** (*n.*) see TOPIC

**toponomastics, toponymy** (*n.*) see ONOMASTICS

**total accountability** A principle of LINGUISTIC analysis, introduced into STRUCTURALIST discussion in the 1940s, whereby everything that is stated at one LEVEL of DESCRIPTION is predictable from another. The principle is presented with reference to the relationship between PHONOLOGY and MORPHOLOGY: every MORPH (and thus every PHONEME) must be capable of being determined by the morphemes and TAGMEMES of which an UTTERANCE is composed. Notions such as EMPTY and PORTMANTEAU morphs require special discussion in relation to this principle.

**total assimilation** see ASSIMILATION

**tough movement** A term used in TRANSFORMATIONAL GRAMMAR, referring to a RULE which involves moving a NOUN PHRASE out of the PREDICATE of a COMPLEMENT SENTENCE. *Tough* is one of a CLASS of ADJECTIVES (others being *hard*, *easy*, *simple*, *difficult*, etc.) which have been the focus of discussion ever since Noam Chomsky's discussion of pairs such as *John is eager/easy to please*. Sentences such as *The ball was easy for John to catch* were said to be derived by *tough*

movement from the structure  $_{NP}[it_{S}[for\ John\ to\ catch\ the\ ball]_{S}]_{NP}\ was\ easy$ , via a rule which EXTRAPOSES the complement (*it was easy for John to catch the ball*). The rule of *tough* movement took the non-SUBJECT noun phrase from the extraposed complement (i.e. *the ball*) and substituted it for the initial subject PRONOUN of the sentence as a whole (i.e. *it*). Other formulations of this rule have been suggested, and the extent of the rule's application has been controversial.

**trace** (*n.*) (**t**) A term introduced into TRANSFORMATIONAL GRAMMAR of the mid-1970s to refer to a FORMAL means of marking the place a CONSTITUENT once held in a DERIVATION, before it was moved to another position by a transformational operation. The position from which the constituent was moved is known as a trace (*t* marks its place in the REPRESENTATION), which is said to be 'BOUND' by that constituent. The moved constituent and the EMPTY NODE it leaves behind are CO-INDEXED. For example, in a RULE which 'raises' the SUBJECT of an EMBEDDED CLAUSE to be the subject of the MAIN clause, the trace *t* marks the position of the embedded subject, e.g. *it is certain [the man to come] → the man is certain t to come*. (See also the THAT-TRACE CONSTRAINT.) In GOVERNMENT-BINDING THEORY, a distinction is made between traces of NOUN PHRASES moved by NP-MOVEMENT (**NP traces**), as in PASSIVE and RAISING sentences, and traces of categories moved by WH-movement (**wh-traces**), as in *wh*-questions, relative clauses, etc. The former are ANAPHORS and the latter are VARIABLES. The distribution of traces is governed by the EMPTY CATEGORY PRINCIPLE. Several arguments have been proposed to support a **trace theory** of movement rules, e.g. that it facilitates the statement of the conditions which affect the SEMANTIC INTERPRETATION of SURFACE structures, and that it permits a more principled account of the operation of syntactic rules. The extent of the convention's applicability (whether *all* moved constituents leave traces), and the kinds of insight and problem which the theory raises, have been sources of controversy. See also FLOATING TRACE.

**trade language** see PIDGIN

**traditional** (*adj.*) A term used in LINGUISTICS, often pejoratively, in relation to GRAMMAR (**traditional grammar**), to refer to the set of attitudes, procedures and PRESCRIPTIONS characteristic of the prelinguistic era of language study, and especially of the European school grammars of the eighteenth and nineteenth centuries. The emphasis on such matters as CORRECTNESS, linguistic PURISM, literary excellence, the use of Latin models and the priority of the written language characterizes this approach, and is in contrast with the concern of linguistics for DESCRIPTIVE accuracy (APPROPRIATENESS, CRITERIA of analysis, comprehensiveness, EXPLICITNESS, etc.). On the other hand, several basic concepts of contemporary grammatical analysis have their origins in pre-twentieth-century linguistic traditions, such as the notions of HIERARCHY, UNIVERSALS and WORD CLASSIFICATION. The term 'traditional', too, has been applied to the major descriptive accounts of grammar in handbook form produced by several North European grammarians in the early twentieth century (e.g. Otto Jespersen's *Modern English Grammar on Historical Principles* (1909–40)) and even, these days, to the early period of generative grammar! The pejorative use of the term, therefore, needs to be invoked with caution.

**transcription** (*n.*) A method of writing down speech sounds in a systematic and consistent way – also known as a ‘notation’ or ‘script’. Two main kinds of transcription are recognized: PHONETIC and PHONEMIC. Square brackets enclose **phonetic transcription** (notation/script); oblique lines enclose **phonemic transcription** (notation/script). In the former, sounds are symbolized on the basis of their ARTICULATORY/AUDITORY identity, regardless of their FUNCTION in a LANGUAGE (sometimes called an **impressionistic** transcription). In the latter, the only UNITS to be symbolized are those which have a linguistic function, i.e. the phonemes. An **allophonic transcription** adds functional phonetic details. A phonemic transcription looks simplest of all, as in this only the units which account for differences of MEANING will be represented, e.g. /pin/, /pen/, /pæn/. In a phonetic transcription, on the other hand, the aim is not to judge the functional significance of sounds, in the context of some language, but to identify the sounds as such.

A phonetic transcription of the English word *pen*, for example, might be [p<sup>h</sup>ɛn]: this indicates some quite subtle features of pronunciation, such as the ASPIRATION following the PLOSIVE, and the slight NASALIZATION of the VOWEL – features which are not phonemes in their own right. If necessary, such a transcription could be made more detailed still, to incorporate any other articulatory or auditory features found in the pronunciation. Phonetic transcriptions which are relatively detailed are called **narrow transcriptions**; those which are less detailed are called **broad transcriptions**. In the broadest possible transcription, only those phonetic SEGMENTS would be notated which correspond to the functionally important units in the language – in other words, it would be equivalent to a phonemic transcription, and some phoneticians do use ‘broad’ in the sense of ‘phonemic’. But in principle it is important to appreciate that the two transcriptions of [pen] and /pen/ refer to very different entities: the first is a broad phonetic transcription, representing a sequence of concrete, physical articulations; the second is a phonemic transcription, representing a sequence of abstract, functional units, and reflecting a particular theoretical point of view.

It is also important to remember that there are several possible ways of transcribing sounds phonemically, depending on the analyst’s views as to what the salient contrasting features are. The contrast between *seat* and *sit*, for example, might be shown as /sɪt/ *v.* /sit/, or as /sɪt/ *v.* /sit/: in the former case, the transcription indicates that the CONTRAST between these words is due to the different LENGTH of the vowels; in the latter case, the transcription suggests that it is not length but the QUALITY of the vowels which differentiates the words, /sɪt/ using a more OPEN vowel than /sit/. It would also be possible to have a third view, /sɪt/ *v.* /sit/, where both length and quality would be considered relevant. All these transcriptions will be found.

In any transcription (whether phonetic or phonemic), each distinguishable sound is given its own ‘symbol’. The whole range of available phonetic symbols is known as a ‘phonetic alphabet’. The most widely used such alphabet is the INTERNATIONAL PHONETIC ALPHABET.

Phonetic symbols are often the same as a letter of the alphabet, e.g. [b] as in *bit*, [k] as in *kettle*, but many new symbols have had to be invented to cope with the range of sounds heard in speech, e.g. [ʃ] for the *sh* sound in *ship*, [θ] for the *th* sound in *thin*. Most of the vowel sounds have had to be given a new symbol, to avoid overloading the five traditional vowel letters of the alphabet, and the



generally 'alien' appearance of a phonetic transcription is largely due to this (see the range used in the *CARDINAL VOWEL* system, for example). See p. xxv of this dictionary.

**transfer** (*n.*) (1) In foreign language learning, the influence of a person's first language on the language being acquired. Transfer effects form part of a person's *INTERLANGUAGE*.

(2) In *SEMANTICS*, any process which enables the same linguistic expression to refer to different sorts of things. The notion includes various kinds of figurative language (such as *METAPHOR*).

**transform** (*n.*) see *TRANSFORMATION*

**transformation** (*n.*) (*T*) A *FORMAL LINGUISTIC* operation which enables two levels of structural *REPRESENTATION* to be placed in correspondence. A **transformational rule** (*T rule, transformation* or *transform*) consists of a *SEQUENCE* of symbols which is rewritten as another sequence, according to certain conventions. The 'input' to the *RULE* is the *STRUCTURAL DESCRIPTION* ('structural analysis' or 'structure index'), which defines the class of *PHRASE-MARKERS* to which the rule can apply. The rule then operates a *STRUCTURAL CHANGE* on this input, by performing one or more of several basic operations. *MOVEMENT* (*REORDERING* or *PERMUTATION*) transformations modify an input structure by reordering the elements it contains. When this operation is seen as one of moving elements to adjoining positions in a phrase-marker, it is known as *ADJUNCTION*. *INSERTION* transformations add new structural elements to the input structure (as in *element-COPYING*, or the insertion of *by* in the *PASSIVE* transformation below). *DELETION* transformations eliminate elements from the input structure. There is a certain amount of variation in the names given to these operations, and opinions differ concerning their status as fundamental operations within the theory.

One of the earliest illustrations of the operation of a transformational rule was the one which converted *ACTIVE* sentences into passive ones, which can be formulated as follows:

$$NP_1-Aux-V-NP_2 \rightarrow NP_2-Aux+be+en-V-by+NP_1$$

(where *be* is a form of the verb *to be*, and *en* represents the past-participle ending of the *LEXICAL* verb). The rule is said to 'operate' on the first, *UNDERLYING* phrase-marker, converting it into a second, 'derived', phrase-marker. The *STRING* produced by the derived phrase-marker may then serve as the underlying string for further transformations, as the analysis of the *SENTENCE* proceeds. The sequence of phrase-markers assigned to a sentence constitutes its **transformational derivation** or **transformational history**.

A *GRAMMAR* which operates using this notion is a **transformational grammar** (*TG*) or **transformational generative grammar** (*TGG*). This type of grammar was first discussed by Noam Chomsky in *Syntactic Structures* (1957) as an illustration of a *GENERATIVE* device more *POWERFUL* than *FINITE-STATE* grammars or *PHRASE-STRUCTURE* *GRAMMARS*. In this view, very many sentence types can be *ECONOMICALLY* derived by supplementing the *CONSTITUENT* analysis rules of

phrase-structure grammars with rules for transforming one sentence into another. The rule of passivization above, for instance, is claimed to be a procedure both SIMPLER and INTUITIVELY more satisfactory than generating active and passive sentences separately in the same grammar. The arguments were persuasive, and as a result transformational grammars became the most influential type in the development of generative grammatical theory: indeed, the field as a whole for a time came to be variously known as 'generative grammar', 'transformational-generative grammar' (or simply 'TG').

Several MODELS of transformational grammar have been presented since its first outline. The standard model, as presented by Chomsky in *Aspects of the Theory of Syntax* (1965), consists of three COMPONENTS: (a) a syntactic component, comprising a basic set of phrase-structure rules (sometimes called the BASE component), which together with lexical information provides the DEEP-STRUCTURE information about sentences, and a set of transformational rules for generating SURFACE STRUCTURES; (b) a PHONOLOGICAL component, which converts strings of syntactic elements into pronounceable utterance; and (c) a SEMANTIC component, which provides a REPRESENTATION of the meaning of the LEXICAL ITEMS to be used in the sentence. The ways in which these components should be interrelated (especially the relationships between semantics and syntax) have proved to be a source of continuing controversy, since the appearance of *Aspects*, and alternative models of analysis have developed (compare especially the distinction between GENERATIVE and INTERPRETIVE semantics).

As a result of these developments, the status and classification of transformations varied a great deal in the 1960s and 1970s. A distinction introduced early on is that between OPTIONAL and OBLIGATORY transformations, the former referring to a rule which *may* apply at a given stage in a derivation, the latter to a rule which *must* apply, if a WELL FORMED sentence is to result. On the other hand, the classification and terminology of transformations in *Syntactic Structures* is different in many respects from that encountered in *Aspects*. In the former, two types of transformation are recognized: SINGULARY (OR SINGLE-BASE), where the rule operates on only one TERMINAL string; and GENERALIZED (OR DOUBLE-BASE), where the rule combines two or more terminal strings, as in CONJOINING and EMBEDDING transformations (which handle CO-ORDINATION and SUBORDINATION respectively). In *Aspects*, however, other distinctions are introduced, some of which replace those found in the former book. Of particular importance is a distinction drawn in one of the models outlined in *Aspects* between LEXICAL and 'non-lexical' transformations: the former transform prelexical structures into deep structures containing COMPLEX SYMBOLS; the latter transform deep structures into surface structures. A further development is the much increased generality of transformations, culminating in the rule 'MOVE ALPHA' – essentially a licence to move anything anywhere, except that the movement must be an instance of either SUBSTITUTION or ADJUNCTION, and must obey SUBJACENCY. Later developments take place within the MINIMALIST PROGRAMME.

The theoretical status of transformations in generative linguistics is still a matter of debate, e.g. how to restrict the power of transformations, or whether all transformations need to be meaning-preserving (see the KATZ-POSTAL hypothesis). Moreover, transformational grammars have come to be seen in contrast to **non-transformational** grammars, such as RELATIONAL GRAMMAR, LEXICAL FUNCTIONAL GRAMMAR and GENERALIZED PHRASE-STRUCTURE GRAMMAR. The

potential fruitfulness of the notion, however, continues to be explored. See also CYCLE, REORDERING (1).

**transformational cycle** see CYCLE (1)

**transformational grammar** see TRANSFORMATION

**transient** (*n.*) see TRANSITION (2)

**transition** (*n.*) (1) A term used in PHONOLOGY to refer to the way adjacent sounds are linked. There are many ways in which the relationships between successive ARTICULATIONS may be described (see GLIDE (1), LIAISON): one general classification which has been suggested distinguishes between **close transitions** and **open transitions**, similar to the distinction between close and open JUNCTURE. Close transitions refer to those articulations where there is an articulatory continuity between successive sounds; in open transition, by contrast, there is a break in the continuity of the articulation. The distinction can be seen in the *s-s* sequences heard in *this sort* and *this assortment*, where the former illustrates a close and the latter an open transition.

(2) The term is also used in ACOUSTIC PHONETICS for the acoustic change which takes place as the vocal organs move to and from the articulatory positions of CONSONANTS, especially PLOSIVES. The transitional features, or **transients**, can be clearly seen on a SPECTROGRAM, by the way the FORMANTS of the adjacent VOWELS are bent upwards or downwards, depending on which consonant is articulated.

**transitional area** see AREA

**transition function** see AUTOMATON

**transition network grammar** A label given to a type of NETWORK GRAMMAR which shows possible SURFACE-STRUCTURE patterns using diagrammatic models. When supplemented by features which enable it to handle such matters as AGREEMENT and ORDER displacement, it is known as an **augmented transition network (ATN) grammar**. See also AUTOMATION.

**transitivity** (*n.*) A category used in the GRAMMATICAL analysis of CLAUSE/SENTENCE CONSTRUCTIONS, with particular reference to the VERB's relationship to DEPENDENT elements of structure. The main members of this category are **transitive** (**tr**, **trans**), referring to a verb which can take a direct OBJECT (as in *he saw the dog*), and **intransitive** (**intr**, **intrans**), where it cannot (as in *\*he arrived a ball*). Many verbs can have both a transitive and an intransitive use (cf. *we went a mile v. we went*), and in some languages this distinction is marked MORPHOLOGICALLY. More complex relationships between a verb and the elements dependent upon it are usually classified separately. For example, verbs which take two objects are sometimes called **ditransitive** (as opposed to **monotransitive**), as in *she gave me a pencil*. There are also several uses of verbs which are marginal to one or other of these categories, as in **pseudo-intransitive** constructions (e.g. *the eggs are selling well*, where an AGENT is assumed – 'someone is selling the eggs' –

unlike normal intransitive constructions, which do not have an agent transform: *we went*, but not \**someone went us*). Some grammarians also talk about (in)transitive PREPOSITIONS. For example, *with* is a transitive preposition, as it must always be accompanied by a NOUN phrase COMPLEMENT (object), and *along* can be transitive or intransitive: cf. *She arrived with a dog v. \*She arrived with* and *She was walking along the river v. She was walking along*.

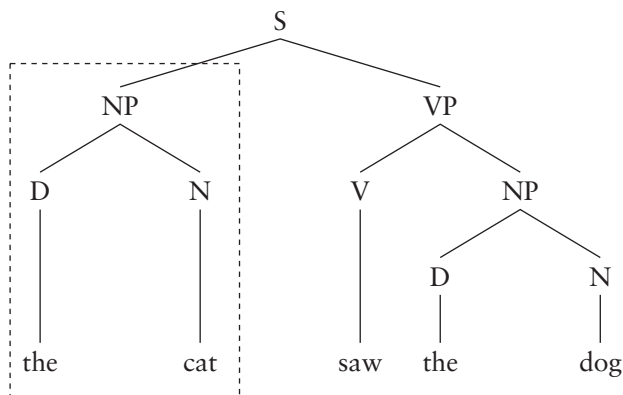
**translatology** (*n.*) In APPLIED LINGUISTICS, the study of translation, subsuming both **interpretation** of oral DISCOURSE and **translation** (in a narrow sense) of written discourse. The process of transferring an oral message from one LANGUAGE to another at the moment of utterance is variously known as **simultaneous interpretation** or **simultaneous translation**. The oral transference of a written message from one language to another is **sight translation**.

**transliteration** (*n.*) In the study of writing systems, the conversion of one writing system into another. Each character of the source LANGUAGE is given an equivalent character in the target language – as in the representation of Russian names in English. Transliteration is commonly carried out for the names of people, places, institutions and inventions. Several systems may exist for a single language. Transliteration needs to be distinguished from TRANSCRIPTION, in which the *sounds* of the source word are conveyed by letters in the target language.

**transparent** (*adj.*) A term used in several areas of LINGUISTICS to refer to an analysis which presents the relevant facts in a direct and perspicuous manner. In GENERATIVE PHONOLOGY, for example, **transparency** refers to the extent to which the applications of a given RULE to a given FORM can be seen in the PHONETIC OUTPUT at the end of the DERIVATION. Non-transparent rules are referred to as **opaque**. The term has also developed special senses in SEMANTICS and generative SYNTAX. See also OPAQUE.

**transplanar locality** see LOCALITY

**tree** (*n.*) (1) A two-dimensional diagram used in GENERATIVE GRAMMAR as a convenient means of displaying the internal HIERARCHICAL STRUCTURE of SENTENCES as generated by a set of RULES. The ‘root’ of the **tree diagram** is at the top of the diagram, consisting of the INITIAL SYMBOL **S**. From this topmost point, or NODE, branches descend corresponding to the CATEGORIES specified by the rules (e.g. NP, VP). The internal relationships of parts of the tree are described using ‘family tree’ terminology: if two categories both derive from a single node, they are said to be ‘sisters’, and ‘daughters’ of the ‘mother node’ from which they derive. A subsection of a tree diagram, isolated for purposes of discussion, is referred to as a **subtree**, as in the enclosed area within the diagram on p. 475. The internal organization of a tree is sometimes referred to as **tree geometry**. In GENERALIZED PHRASE-STRUCTURE GRAMMAR, the term **local tree** refers to a tree of depth one, i.e. a tree in which every node other than the root is a daughter of the root. The S–NP–VP subtree in the diagram below would be a local tree, in this context. In PROCEDURAL GRAMMAR, a **structure tree** or **parse tree** is the result of applying the analytical procedures to a TEXT. In computer CORPUS research, a parsed corpus is known as a **treebank**. See also DEPENDENCY GRAMMAR, METRICAL GRID.



(2) In HISTORICAL LINGUISTICS, a representation of the genetic relationships between the members of a FAMILY of languages.

**tree-adjoining grammar (TAG)** A type of FORMAL GRAMMAR which recognizes TREES as PRIMITIVE elements (**elementary trees**), combining these into larger structures; also called **tree-adjunction grammar**. Elementary trees are of two kinds: **initial trees**, which contain the basic PHRASAL elements of simple SENTENCES, without any RECURSION; and **auxiliary trees**, which represent recursive structures. The tag FORMALISM makes use of the operations of SUBSTITUTION (in which a ROOT NODE from one tree is merged with a non-terminal node in another, to produce a new tree) and ADJUNCTION (in which an auxiliary tree is attached to a non-terminal node in an initial tree). TAGs were devised by US computer scientist Aravind K. Joshi (b. 1929) and colleagues. They are weakly equivalent to CONTEXT-free grammars.

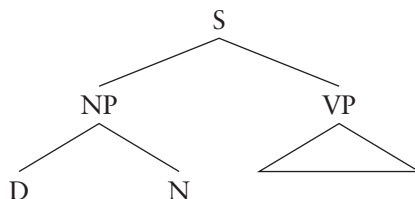
**treebank** (*n.*), **tree geometry** see TREE

**tree-only phonology** see METRICAL GRID

**triadic** (*adj.*) A term used to characterize a theory of MEANING which postulates that there is an indirect relationship between LINGUISTIC FORMS and the entities, states of affairs, etc., to which they refer (i.e. REFERENTS). Instead of a direct two-way relationship (a DUALIST theory), a third step is proposed, corresponding to the mental concept or SENSE of the linguistic form. The best-known triadic MODEL is the 'semantic triangle' of C. K. Ogden (1889–1957) and I. A. Richards (1893–1979), presented in their book *The Meaning of Meaning* in 1923.

**trial** (*adj./n.*) see NUMBER

**triangle** (*n.*) A NOTATIONAL device used in GENERATIVE GRAMMAR as part of a PHRASE-MARKER to represent a CONSTITUENT with a complex internal STRUCTURE, the details of which are not relevant for the point under discussion, as in the following TREE diagram:



**trickling** (*n.*) see PERCOLATION

**trigger** (*n.*) see TARGET

**triglossia** (*n.*) see DIGLOSSIA

**trigraph** (*n.*) In the study of reading and spelling, a sequence of three written symbols representing one speech sound. Examples include *manoeuvre*, where the *oeu* represents /u:/, and French *eau* ‘water’, pronounced /o:/.

**trill** (*n.*) A term in the PHONETIC classification of CONSONANT sounds on the basis of their MANNER OF ARTICULATION: also known as a **trilled** consonant, or a ROLL, ‘trill’ refers to any sound made by the rapid tapping of one organ of articulation against another. (VOCAL-CORD vibration is not included in such a definition.) Several ACCENTS of English use the trilled *r*, as in Welsh and Scots. French and German are examples of LANGUAGES which have a UVULAR trill. The trill may also be accompanied by audible friction, and would then be called a ‘FRICATIVE trill’. BILABIAL trills are also possible, as when one makes a ‘freezing’ noise, *brrr* [B], or imitates a car engine.

**tripartite** (*adj.*) A term referring to the three-part structure assumed to underlie QUANTIFICATIONAL SENTENCES in FILE CHANGE SEMANTICS and related theories. The three parts of a tripartite structure include a QUANTIFIER, a restriction CLAUSE limiting the class of entities which are quantified over, and a NUCLEAR SCOPE.

**triphthong** (*n.*) A term used in the PHONETIC classification of VOWEL sounds on the basis of their MANNER OF ARTICULATION: it refers to a type of vowel where there are two noticeable changes in QUALITY during a SYLLABLE, as in a common pronunciation of English *fire* and *tower* /faɪə/ and /taʊə/. The distinction between triphthongs and the more common DIPHTHONGS is sometimes phonetically unclear.

**trisyllable** (*n.*) A term used in PHONETICS and PHONOLOGY to refer to a UNIT, typically a WORD, consisting of three SYLLABLES, such as *consequence* and *happily*; it contrasts with MONOSYLLABLE and DISYLLABLE. A **trisyllabic** form is distinguished from monosyllabic and disyllabic forms.

**trivalent** (*adj.*) see VALENCY

**trochee** (*n.*) A traditional term in METRICS for a unit of poetic RHYTHM comprising a single pair of STRESSED + unstressed syllables (as in *David*); also called a **trochaic foot**. In METRICAL PHONOLOGY, the notion is used as an informal

name for BOUNDED LEFT-DOMINANT FEET, which display this rhythmical structure. See also IAMB.

**troponymy** (*n.*) In SEMANTICS, a term used for a type of ENTAILMENT found in VERBS: the activity referred to by a **troponym** and its superordinate are always temporally co-extensive. An example is the relationship between *limp* and *walk*. By contrast, *snore* is not a troponym of *sleep*.

**trough** (*n.*) see PEAK

**true generalization condition** see GENERAL (2)

**T rule** (*n.*) see TRANSFORMATION

**truncation** (*n.*) A term sometimes used in PHONOLOGY to refer to a process of WORD shortening which is phonologically predictable. Certain types of HYPOCORISTIC (pet-name), for example, have been shown to be truncated in a regular way. The process has attracted particular attention in PROSODIC MORPHOLOGY, where it is used to illustrate such processes as TEMPLATE-mapping and prosodic CIRCUMSCRIPTION.

**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 the function of the sentence in terms of SPEECH ACTS, or the speaker's beliefs about the sentence (see PRAGMATICS).

**truth conditions** A term used in logic and SEMANTICS for the conditions under which a SENTENCE is true. For example, *Snow is white* is true if and only if snow is white.

**truth functional** A term used in logic and SEMANTICS to refer to CONNECTIVES or other OPERATORS which are analysed as denoting **truth functions** – that is, FUNCTIONS which map ordered n-tuples of TRUTH VALUES onto truth values. CONJUNCTION, DISJUNCTION and the MATERIAL CONDITIONAL and biconditional are all examples of truth functional connectives.

**truth value** A term used in logic and SEMANTICS for the status of a SENTENCE as true or false. The numbers 1 and 0 are sometimes used to represent the values 'true' and 'false', respectively. Some theories admit additional truth values.

**Turing machine** see AUTOMATON

**turn** (*n.*) A term used in SOCIOLINGUISTICS as part of the study of conversational structure: conversation is seen as a sequence of **conversational turns**, in which the contribution of each participant is seen as part of a co-ordinated and RULE-governed behavioural interaction. Some of the rules governing **turn-taking** are obvious (e.g. that only one person should talk at a time); others are less easy

to discover (e.g. the rules which decide who should speak next in a group discussion). How children learn the conventions governing turn-taking is an issue which has attracted considerable interest in language ACQUISITION.

**turn-taking** (*n.*) see TURN

**type** (*n.*) (1) A notion developed in mathematical logic and used as part of the conceptual apparatus underlying FORMAL SEMANTICS (notably, in LAMBDA calculus). A **type-theoretic** approach offers a mathematical perspective for the CATEGORIAL SYNTAX of natural language, using the notion of a HIERARCHY of types as a framework for semantic structure (as in MONTAGUE GRAMMAR). Basic (or primitive) types (e.g. 'entity', 'truth value', 'state') are distinguished from derived or complex types (e.g. functional types: an example is  $(a, b)$ , i.e. all functions taking arguments in the  $a$  domain apply to values in the  $b$  domain). Types are used in several models of LEXICAL REPRESENTATION (notably, '**typed** FEATURE structures') to refer to a superordinate category. The types are organized as a LATTICE framework, with the most general type represented at the top and inconsistency indicated at the bottom. Similarities in lattices specify compatibility between types. **Subtypes** INHERIT all the properties of all their **supertypes**: for example, in a typed feature structure hierarchy, the subtype *sausages* under the type *food* ('sausages are a type of food') means that *sausages* has all the properties specified by the type constraints on *food*, with some further properties of its own.

(2) In LEXICAL study, a term used as part of a measure of lexical density. The **type-token ratio** is the ratio of the total number of different words (**types**) to the total number of words (**tokens**) in a sample of text.

**Type 0 /1 /2 /3 grammars** see CHOMSKY HIERARCHY

**typed feature structure language** see LEXICAL REPRESENTATION LANGUAGE

**type shifting** In TYPE-theoretic approaches to SEMANTICS, a RULE which applies to EXPRESSIONS of a given kind, assigning them derived DENOTATIONS of a different kind. Type-shifting rules which assign derived denotations of relatively complex types, based on denotations of simpler types, are known as **type raising rules**. Rules which assign derived denotations of relatively simple types, based on denotations of more complex types, are known as **type lowering rules**. In CATEGORIAL GRAMMAR, analogous rules of **category shifting** are used to assign derived SYNTACTIC categories.

**type-theoretic grammar** see TYPE (1)

**type/token ratio** see LEXICAL DENSITY, TYPE (2)

**typological linguistics** A branch of LINGUISTICS which studies the STRUCTURAL similarities between LANGUAGES, regardless of their history, as part of an attempt to establish a satisfactory CLASSIFICATION, or **typology**, of languages. **Typological comparison** is thus distinguished from the historical comparison of languages – the province of COMPARATIVE PHILOLOGY and HISTORICAL LINGUISTICS – and



its groupings may not coincide with those set up by the historical method. For example, in respect of the paucity of INFLECTIONAL endings, English is closer to Chinese than it is to Latin. One typological classification, proposed by the German linguist Wilhelm von Humboldt (1768–1835) in the early nineteenth century, established three main groups of languages on structural grounds: ISOLATING, AGGLUTINATIVE and FUSIONAL; a fourth category, POLYSYNTHETIC, has sometimes been suggested. The MORPHOLOGICAL orientation of this approach is, however, only one aspect of typological analysis, which can operate at all linguistic levels (e.g. a PHONOLOGICAL typology in terms of CONSONANT/VOWEL inventories or SYSTEMS, SYLLABLE structure or SUPRASEGMENTAL patterns – as illustrated in such notions as ‘TONE language’ or ‘CLICK language’). When one considers the many possible criteria of typological comparison, it is plain that no simple classification is likely to emerge, and that differences between languages are not clear-cut, but matters of degree.