# B

baby-talk (n.) (BT) An extension in Language acquisition studies of the traditional sense of this term, to refer to the whole range of distinctive linguistic characteristics found in adult speech addressed to young children. Baby-talk thus includes far more than the often stereotyped use of endearing pronunciations and words (such as doggie, den/ for then, etc.) and is primarily characterized with reference to the use of simplified sentence structures, and certain types of linguistic interaction (such as the expansion of a child's sentence into a full adult form, e.g.  $Dadda\ gone \rightarrow Yes,\ daddy's\ gone$ ). The study of baby-talk, or 'language input', became a major focus of language acquisition studies in the early 1970s, a particular stimulus coming from sociolinguistics. The term is now uncommon in psycholinguistics because of its apparent restriction to babies (as opposed to young children generally) and its ambiguity (talk by babies as well as to babies). It has tended to be replaced by motherese, or by more general notions such as caregiver or caretaker speech.

Bach-Peters sentence In GRAMMATICAL theory, a SENTENCE containing two NOUN PHRASES, each of which contains a PRONOUN which is ANAPHORIC to the other noun phrase, as in [The pilot who shot at it<sub>i</sub>]<sub>i</sub> hit [the plane that was chasing him<sub>i</sub>]<sub>i</sub>; also called the Bach-Peters paradox. Such sentences present a problem of infinite regress for certain theories of anaphora. The term is named after two US linguists: Emmon Bach (b. 1929) and Stanley Peters (b. 1941).

back (adj.) (sounds) Classification of back speech sounds are of two types: (a) those articulated in the back part of the mouth; and (b) those articulated with the back part of the TONGUE. In many cases, these two criteria coincide: back vowels are 'back' in both senses, as in English hard, talk, show, got, as are the back consonants heard at the beginning of go, car and way. Consonants made in the larynx or pharynx, however, such as [h], are 'back' in sense (a) only. Back vowels are contrasted, in traditional phonetic classifications, with front and central vowels.

In the traditional classifications, sounds made at the back of the mouth are distinguished from those made at the front; and those made by the back of the tongue are opposed to those made further forward, by the TIP and BLADE (or front) of the tongue. In the DISTINCTIVE FEATURE analysis of sounds proposed by

bar 47

Chomsky and Halle (see Chomskyan), the equivalent of 'front' is anterior, and of 'tip/blade' is CORONAL. Back sounds as a whole, in their terminology, are a type of CAVITY feature (specifically, a TONGUE-BODY FEATURE); they are contrasted with **non-back** sounds, i.e. sounds produced without any retraction of the tongue from the neutral position.

backchannelling (*n*.) A term used in PRAGMATICS and SOCIOLINGUISTICS, as part of the study of listener behaviour in an INTERACTION, referring to the reactions given to a speaker by way of FEEDBACK. They include monosyllabic responses (*mhm*), short phrases (*I guess so*), utterance repetitions and sentence completions, as well as non-verbal cues (e.g. nodding, gaze variation).

back-formation (n.) A term used in historical studies of MORPHOLOGY to refer to an abnormal type of WORD-FORMATION where a shorter word is derived by deleting an imagined AFFIX from a longer form already present in the language. Edit, for example, comes from editor, and not the other way round. This DERIVATION presumably took place because NATIVE-SPEAKERS saw an ANALOGY between editor and other words where a normal derivational process had taken place, e.g. credit/creditor, inspect/inspector, act/actor, the NOUNS being in each case formed from the VERBS. The derivation of edit thus reverses the expected derivational pattern, hence the term 'back-formation'.

# backgrounding (n.) see FOREGROUNDING

backlooping (n.) A term in TAGMEMIC GRAMMAR for the inclusion of higher-LEVEL CONSTRUCTIONS within the SLOTS of a lower-level construction, as in the use of RELATIVE CLAUSES within the NOUN PHRASE (e.g. *the lady who was talking*...); sometimes referred to as loopback. It is distinguished from LEVEL-SKIPPING and LAYERING.

## back-reference (n.) see REFERENCE

bahuvrihi (adj.) /bɑːhuːˈvriːhiː/ In GRAMMAR, a Sanskrit term describing a type of COMPOUND in which an entity is characterized without either of the constituents directly naming it; also called an exocentric or possessive compound. Examples include loudmouth (a person 'whose mouth speaks loudly') and scarecrow (an object whose job is to 'scare crows').

bandwidth (n.) An application in ACOUSTIC PHONETICS of a notion from acoustics, referring to an interval between two given limits within which a range of FREQUENCIES falls. Specifically, it is the interval, measured in Hertz (Hz), within which half of a component's acoustic energy occurs: for example, a FORMANT located at 1500 Hz with a bandwidth of 100 Hz would have most of its energy within the range of 1450 to 1550 Hz.

bar (n.) A mode of classification of syntactic categories in X-bar syntax. Most commonly, zero-bar categories are word-level categories; single-bar and double-bar categories are Phrasal. Single bars and double bars are often represented by a bar over a category symbol (e.g.  $\bar{N}$ ,  $\bar{N}$ ). The alternative ways of

representing bar(s) include primes (e.g. N', N"), and numerical symbols (e.g. N1, N2 or N<sup>1</sup>, N<sup>2</sup>). Zero-bar categories are sometimes represented as N0 or N<sup>0</sup>. In GENERALIZED PHRASE-STRUCTURE GRAMMAR, bar is a multi-valued category feature which can take 0, 1 or 2 as its value. See also PROJECTION, VARIABLE (3).

bare infinitive see INFINITIVE

bare phrase structure see PHRASE-STRUCTURE GRAMMAR

bare plural A term used in some GRAMMATICAL approaches to refer to a PLURAL NOUN PHRASE with no DETERMINER, as in *Raindrops* are falling on my head.

barrier (n.) A term used in Government-Binding Theory to refer to categories whose boundaries restrict certain phenomena. A barrier is a node which blocks the syntactic processes of Movement and Government: one barrier blocks government; two barriers block movement. The principle that movement cannot cross more than one barrier is known as subjacency. A is considered to be a barrier for B if A is a 'blocking category' for B: to be a blocking category, A must not be theta-marked by a lexical (L) category, and A must dominate B. Anything can be a barrier, apart from IP (inflection-phrase). Other nodes can also become barriers for B if they dominate non-L-marked nodes dominating B or if they dominate the nearest governor of B (the 'minimality condition'). The notion became increasingly important in syntactic theory following the publication of Noam Chomsky's Barriers (1986). Barriers are also encountered in Phonology, where they refer to any unit (e.g. a boundary symbol, a segment) within a string which blocks the application of a phonological rule to that string.

## bar variable see VARIABLE (3)

base (n.) (1) A term used in MORPHOLOGY as an alternative to ROOT or STEM: it refers to any part of a WORD seen as a UNIT to which an operation can be applied, as when one adds an AFFIX to a root or stem. For example, in unhappy the base form is happy; if -ness is then added to unhappy, the whole of this item would be considered the base to which the new affix is attached. Some analysts, however, restrict the term 'base' to be equivalent to 'root', i.e. the part of a word remaining when all AFFIXES have been removed. In such an approach, happy would be the base form (the highest common factor) of all its DERIVATIONS – happiness, unhappy, unhappiness, etc. This meaning leads to a special use in PROSODIC MORPHOLOGY to define the portion of the output in CORRESPOND-ENCE with another portion of the form, especially the REDUPLICANT; often abbreviated as B. See ANCHOR.

(2) In a more abstract approach to GRAMMAR (SYNTAX as well as morphology), the term **basic form** is used to refer to any abstract unit which has been set up in order to allow a range of FORMS to be interrelated, i.e. seen as VARIANTS. In morphology, for example, the basic or CANONICAL form of a MORPHEME might be identified as one of its ALTERNANTS (e.g. the basic form (or 'basic alternant') of the morpheme *man* is the morph *man*, with *men* being DERIVED from this in some way), or it might be a unit underlying both (e.g. a unit [mVn], where both

man and men are derived by some process of vowel (V) replacement). Similarly in syntax a sentence can be seen as having a basic form from which other sentences are derived (e.g. active underlying passive sentences, positives underlying negatives), or related structures can be seen as being derived from a common underlying form. Generative grammar is the approach which has exploited the potential of such analyses most fully. This sense of 'basic', it should be clear, is different from the general sense used in language teaching or learning situations, where (possibly in addition to the above) the implication is that basic patterns of vocabulary are easier to learn, or are more useful for communication.

base component A term used in the STANDARD model of generative grammar to refer to one of the two main divisions of the grammar's SYNTACTIC COMPONENT, the other being the TRANSFORMATIONAL (sub-)component. In Noam Chomsky's Syntactic Structures (1957), the alternative term was 'phrase-structure component', which specified the PHRASE-STRUCTURE RULES of the grammar. In Aspects of the Theory of Syntax (1965), the same distinction (between base and transformational subcomponents) is made, but the roles of the two differ from the earlier version, in relation to the theory as a whole. In Aspects, the base contains a 'categorial' component (specifying the CATEGORIES, S, NP, VP, etc.) and a 'lexical' component (consisting of LEXICAL entries made up of such FEATURES as 'animate', 'human', etc.). Taken together, the information in these components specifies the DEEP STRUCTURE of sentences. In later versions of generative grammar, the role of the base component receives further modifications, as the relationship between syntax and SEMANTICS is investigated. See also UNIVERSAL.

basic expression A term sometimes used in FORMAL SEMANTICS for a LEXICAL ITEM – that is, an expression which is not built up COMPOSITIONALLY from other expressions.

basic form see BASE (2)

**basilect** (n.) A term used by some SOCIOLINGUISTS, in the study of the development of CREOLE LANGUAGES, to refer to a linguistic VARIETY (or LECT) most remote from the prestige language (the 'matrilect' or ACROLECT). **Basilectal** varieties are also contrasted with the intermediate varieties, known as MESOLECTS.

beat (n.) A term used by some METRICAL PHONOLOGISTS for the grid marks at the second or higher LEVEL in a METRICAL GRID; the marks at the bottom level are referred to as **demibeats**. The distinction corresponds in part to the STRONG/WEAK FORM or STRESSED/unstressed distinction: beats or demibeats that coincide with a beat at a higher level are strong; those which do not are weak.

behaviourism (n.) In LINGUISTICS, the influence of this school of psychology (the study of observable and measurable behaviour) has been most marked in the work of the American linguist Leonard Bloomfield. It can be seen in the BLOOMFIELDIAN insistence on rigorous DISCOVERY PROCEDURES, and most notably in his behaviourist account of MEANING in terms of observable stimuli and responses made by participants in specific situations. The limitations of behaviourist (or 'mechanistic') accounts of LANGUAGE (especially that associated with the work of

50 benefactive

the American psychologist B(urrhus) F(rederic) Skinner (1904–90) were criticized by Noam Chomsky in the late 1950s, in writings which anticipate the development of MENTALISTIC ideas in linguistics.

benefactive (adj./n.) (ben, BEN) A term used in some GRAMMATICAL descriptions to refer to a CASE form or CONSTRUCTION whose FUNCTION in a SENTENCE is to express the notion 'on behalf of' or 'for the benefit of'. A benefactive form ('a benefactive') expresses the sense of 'intended RECIPIENT', and is often introduced by a for phrase in English, e.g. I've got a book for you.

biased constraint demotion algorithm see CONSTRAINT DEMOTION ALGORITHM

biconditional (n.) see MATERIAL CONDITIONAL

bidialectalism (n.) In its most general sense, a term which refers to proficiency in the use by a person or a community of two dialects of a language, whether regional or social; also called bidialectism. Several kinds of bidialectal situation have been studied, one of the best known being the switching from a casual to a FORMAL VARIETY of speech (DIGLOSSIA). More specifically, it is a principle propounded in SOCIOLINGUISTICS and EDUCATIONAL LINGUISTICS wherein different dialects are attributed equal linguistic validity and recommended for use in their appropriate social settings. The principle is of particular importance in relation to educational policy in schools, where the differences between the non-standard and the STANDARD forms of a language can lead to considerable conflict. Bidialectalism recommends that both non-standard and standard dialects should be encouraged in the educational process, along with the fostering of children's abilities to use CODE-switching, thus developing a greater degree of understanding and control over the varieties of their language than would otherwise be the case.

bidialectism (n.) see BIDIALECTALISM

bidirectionality (n.) see ITERATIVITY

big PRO see PRO

bijection principle (BP) In Government-binding theory, a condition on logical form which states that a variable is locally bound by one and only one A-bar position, and an A-bar position locally binds one and only one variable. This bijective correspondence excludes weak crossover violations of the type illustrated by \* $Who_i$  does his\_i mother love  $t_i$ ?, which involve an A-bar position locally binding two variables (the pronoun his and the trace). By contrast, the principle allows  $Who_i$   $t_i$  loves his\_i mother?, where the A-bar category locally A-bar-binds the trace, which in turn locally A-binds the pronoun.

bilabial (adj./n.) A term in the classification of CONSONANT sounds on the basis of their PLACE OF ARTICULATION: it refers to a sound made by the coming together of both lips. Examples are the initial sounds in *pin*, *bin*, *mat*; a non-English bilabial would be the initial sound in Welsh *mhen* 'my head'. The term is restricted

to consonantal ARTICULATION; the active use of the lips in the articulation of vowels is discussed in terms of ROUNDING and SPREADING. The only common speech sounds in which a single lip is the primary articulator are known as LABIODENTALS. 'Monolabial' is not found as a technical term; 'quadrilabial' exists only in humour, as part of the PHONETICIAN's technical description of a kiss!

bilateral (*adj.*) (1) A type of opposition recognized in Prague School phonology, distinguished from multilateral. The opposition between English /t/ and /d/, for example, is bilateral, because these are the only units in the system which are Alveolar/plosive, and they are differentiated by the single feature of voicing; the opposition between, say, /t/ and /v/, however is multilateral, because there are other possibilities involving the same set of Features, e.g. /d/ v. /f/. (2) A lateral sound in which air escapes around both sides of the tongue, as in the usual articulation of [1]; opposed to 'unilateral'.

bilingual (adj./n.) The general sense of this term – a person who can speak two LANGUAGES – provides a pre-theoretical frame of reference for linguistic study, especially by sociolinguists, and by APPLIED LINGUISTS involved in foreign- or second-language teaching; it contrasts with monolingual. The focus of attention has been on the many kinds and degrees of bilingualism and bilingual situations which exist. Definitions of bilingualism reflect assumptions about the degree of proficiency people must achieve before they qualify as bilingual (whether comparable to a monolingual NATIVE-SPEAKER, or something less than this, even to the extent of minimal knowledge of a second language). Several technical distinctions have been introduced, e.g. between COMPOUND and CO-ORDINATE bilingualism (based on the extent to which the bilingual sees the two languages as SEMANTICALLY equivalent or non-equivalent), between the various methods of learning the two languages (e.g. simultaneously or in sequence in childhood, or through formal instruction), and between the various levels of abstraction at which the linguistic systems operate - bilingualism being distinguished from BIDIALECTALISM and DIGLOSSIA. Of particular importance is the way in which studies of bilingualism involve the analysis of social, psychological and national (e.g. in the case of Welsh and Flemish) concerns – such as the social status of the different languages, and their role in identifying speakers with particular ethnic groups. In additive or elite bilingualism, a majority group learns a second language without this being a threat to its first language (e.g. English-speaking Canadians learning French); in subtractive or folk bilingualism, the second language comes to replace the first (a common situation with minority languages).

biliteracy (n.) see LITERACY

bimoraic (adj.) see MORA

binarity, binarism (n.) see BINARY FEATURE

binary choice see BINARY FEATURE

binary evaluation see EVALUATOR

binary feature A property which can be used to classify linguistic UNITS in terms of two mutually exclusive possibilities, such as in PHONOLOGY the presence versus the absence of VOCAL-CORD vibration, or lip-ROUNDING. Binary features are a major organizational principle of DISTINCTIVE FEATURE theories of phonology, where it is conventional to mark the OPPOSITION using ± in square brackets; e.g. a sound is characterized as [+ voice] or [- voice]. Binary features are also established in GRAMMATICAL and SEMANTIC analyses of LEXICAL ITEMS, within GENERATIVE grammar, where the same TRANSCRIPTIONAL convention is used, e.g. NOUNS have such properties as [+ common], [- common]. Binary features stand in contrast to 'unary' and 'multi-valued' ('n-valued' or 'n-ary') features. For example, in 'unary component theory' in phonology, binary notions (e.g. [± round]) are replaced by single elements (e.g. [round]).

Binarity, or binarism, in this sense is relatable to the principles of binary coding used in Information theory, but the status of such contrasts in language is often controversial, as it is not always clear whether the linguistic possibilities available in phonology, grammar and semantics are best seen as a series of binary choices. In IMMEDIATE CONSTITUENT analysis, for example, which uses a binary technique for splitting sentences into smaller parts, it is sometimes impossible to decide where a binary division should be made, as in the case of ADJECTIVE sequence (e.g. *nice old red chair* is not really divisible into *nice* + *old red*, or *nice old* + *red*). It has sometimes been suggested that binary BRANCHING is the norm in a PHRASE-MARKER. In cases where binary features are used, it is sometimes possible to see one of the features as neutral, or unmarked, and the other as positive, or MARKED.

## **bind** ( $\nu$ .) see BINDING

binding (adj./n.) A term used in logic, and frequently encountered in GRAM-MATICAL and SEMANTIC THEORY, for the relation between a VARIABLE and a QUANTIFIER or other OPERATOR on which it is semantically dependent – normally the lowest operator CO-INDEXED with the variable and taking it in its SCOPE. In government-binding theory it refers to a series of conditions which formally relate, or bind, certain elements of a sentence. Two kinds of binding are distinguished: A-binding and A-bar-binding (Ā-binding). The former obtains if a category (an ANAPHOR) is CO-INDEXED with a C-COMMANDING NOUN PHRASE in an A-position (= ARGUMENT-position). The latter obtains if a category (e.g. a variable such as a WH-MOVEMENT TRACE) is co-indexed with a c-commanding category which is in an A-bar position (a position other than subject, object and object of a preposition), e.g. the clause-initial position occupied by a wh-phrase. The extension (or generalization) of the approach from the former to the latter is known as generalized binding. Elements which are not bound are FREE. Binding theory is one of the (sub-)theories of government-binding theory. It is primarily concerned with the distribution of NPs in a sentence, determining the situations in which they can or must be co-indexed with other NPs. The NPs are classified into ANAPHORS, PRONOMINALS and R-EXPRESSIONS ('referring expressions'). The three principles of binding theory – binding conditions A, B and C – are: (a) an anaphor is A-bound in its governing category; (b) a pronominal is A-free in its governing category; (c) an R-expression is A-free (everywhere). The binding inheritance principle is a reinterpretation of the FOOT-feature principle of GENER-

ALIZED PHRASE-STRUCTURE GRAMMAR within HEAD-DRIVEN PHRASE-STRUCTURE GRAMMAR.

binomial (adj./n.) A term from mathematics (where it refers to an expression consisting of two elements connected by a plus or minus sign) which is sometimes used in LEXICOLOGY to characterize two-element idiomatic COLLOCATIONS such as *spick and span* or *rack and ruin* (a 'binomial expansion' or 'a binomial').

biolinguistics (*n*.) A developing branch of LINGUISTICS which studies the biological preconditions for language development and use in human beings, from the viewpoints of both the history of language in the race, and the development of language in the individual. It is also known as biological linguistics. Topics of common interest to the two subject-areas involved include the genetic transmission of language, neurophysiological models of language production, the anatomical parallels between human and other species, and the development of pathological forms of language behaviour (see CLINICAL LINGUISTICS).

# biological linguistics see BIOLINGUISTICS

bioprogramme hypothesis A hypothesis in the study of CREOLE LANGUAGES that creoles are the inventions of the children growing up in the forts or on the plantations of the newly formed colonies; also spelled (especially in American English) bioprogram hypothesis. These children, who would hear only the highly simplified structures of PIDGINS around them, used their INNATE linguistic capacities to transform the pidgins into a natural language. This account, introduced by Derek Bickerton (b. 1926), claims to be able to explain the similarity and simplicity of creole languages: they are similar because the innate capacity applied was UNIVERSAL, and they are simpler because only the most basic language structures were represented. The study of creole languages, in this view, provides special insight into the character of universal grammar.

**bipositionality** (*n*.) In some models of Non-Linear Phonology, the Representation of Consonant or Vowel Length in two positions on the Tier at which phonological Quantity is represented (e.g. the CV-tier, X-tier). A long consonant or vowel is represented as a ROOT NODE linked to two units of quantity.

**biuniqueness** (*n*.) A principle in some approaches to PHONOLOGY which states that any sequence of PHONEMES will be represented by a unique sequence of PHONES, and vice versa – in other words, there is a one-to-one (or 'reversible') correspondence between phones and phonemes. For example, in the word *bin*, the relationship between the two LEVELS of analysis can be shown as

$$\frac{b}{b} + \frac{1}{a} + \frac{n}{a}$$

54 bivalent

There are, however, several cases where this straightforward correlation does not apply, and where the notion of a phoneme as a unique class of sounds consequently is invalid. In such cases (see OVERLAPPING), one phone is assigned to more than one phoneme, depending on the CONTEXT. The biuniqueness condition, along with the conditions of LINEARITY and INVARIANCE, on which it depends, was particularly criticized by GENERATIVE phonologists, as part of their general attack on TAXONOMIC phonemics.

bivalent (adj.) see VALENCY

# Black English Vernacular see VERNACULAR

**blade** (*n*.) The part of the TONGUE between TIP and CENTRE, and which lies opposite the teeth and ALVEOLAR ridge when the tongue is in neutral position. Also known as the LAMINA, it is used in the articulation of several speech sounds, such as [t] and [s].

**bleaching** (*n*.) A term sometimes used in SEMANTICS to refer to a perceived loss or dilution of MEANING in a word as a result of semantic change. Examples are the use of *you know* and *I mean* as PRAGMATIC particles.

bleeding (adj./n.) A term used in GENERATIVE linguistic analysis of RULE-ordering, and originally introduced in the context of DIACHRONIC PHONOLOGY, to refer to a type of FUNCTIONAL relationship between rules; opposed to FEEDING. A bleeding relationship is one where a rule (A) removes a STRUCTURAL REPRESENTATION to which another rule (B) would otherwise have applied, and thus reduces the number of forms which can be generated. If rule B is of the form  $X \to Y$ , then rule A must be of the form  $W \to \text{not } X$ . In these circumstances, rule A is called a bleeding rule in relation to B, and the LINEAR ORDER of these rules is called a bleeding order. If the rules are applied in the reverse order, A is said to counter-bleed B. Counter-bleeding results in a non-affecting interaction in which a rule fails to realize its potential to reduce the number of forms to which another rule applies.

#### **blend** (*n*.) see BLENDING

blending (n.) A process found in the analysis of GRAMMATICAL and LEXICAL CONSTRUCTIONS, in which two ELEMENTS which do not normally co-occur, according to the RULES of the language, come together within a single LINGUISTIC UNIT (a blend). In GRAMMAR, the process is illustrated by such syntactic blends as It's his job is the problem, a combination of the SENTENCES It's his job and His job is the problem. In LEXIS, 'blending' is a common source of new WORDS through ABBREVIATION (though not all become standard), e.g. brunch, Interpol and Eurovision. The term is also used by some PSYCHOLINGUISTS for a type of TONGUE-SLIP involving the FUSION of two target words, e.g. swurse for swear + curse. See also LOAN.

## block (v.) see Blocking

bootstrap 55

blocking (n.) (1) A term used in classical transformational grammar to refer to the non-application of a transformational rule. A rule is said to be blocked if it cannot be applied to a derivation because of the occurrence of a specific property in the Phrase-Marker. The term is also used in Government-Binding theory to formalize the notion of what can act as a barrier. To be a blocking category, A must not be theta-marked by a lexical (L) category, and A must dominate B.

(2) In MORPHOLOGY, the term refers to the prevention of a process of WORDFORMATION due to the existence in a language of a word with the same meaning as the one which would have been formed. Although we may obtain *curiosity* from *curious*, English does not allow *gloriosity*, because *glory* already exists in the language, and therefore **blocks** it. This notion of SYNONYMY avoidance can also be extended to such cases as *went* blocking *goed*.

block language A term used in some GRAMMATICAL DESCRIPTIONS to refer to the use of abbreviated structures in restricted COMMUNICATIVE CONTEXTS, especial use being made of the WORD or PHRASE, rather than the CLAUSE or SENTENCE. Common examples include: No smoking, Exit, One way, and 'headlinese', e.g. Prime Minister shock.

Bloomfieldian (adj./n.) Characteristic of, or a follower of, the linguistic approach of the American linguist Leonard Bloomfield (1887–1949), as exemplified in his book Language, published in 1933. Bloomfieldianism refers particularly to the school of thought which developed between the mid-1930s and 1950s, especially in America, and which was a formative influence on STRUCTURAL LINGUISTICS. It was especially characterized by its behaviouristic principles for the study of MEANING, its insistence on rigorous DISCOVERY PROCEDURES for establishing linguistic units, and a general concern to make linguistics AUTONOMOUS and scientific (in a BEHAVIOURIST sense). A reaction against Bloomfieldian tenets was a powerful force in producing GENERATIVE grammar. Though Bloomfieldianism is no longer fashionable, some of its methods are still widely used in field studies.

# Bloomfieldianism (n.) see BLOOMFIELDIAN

Boolean (*adj*.) A term from mathematical logic (where it characterizes a type of algebra in which logical symbols are used to represent relations between sets; named after George Boole (1815–64), and widely used in COMPUTATIONAL LINGUISTICS and certain kinds of SEMANTICS, where it elucidates PROPOSITIONS linked by the three fundamental logical operations *and*, *or* and *not* (Boolean operators). Boolean algebra or logic is especially relevant in cases which deal with mutually exclusive alternatives, such as BINARY features.

**bootstrap** (v.) In the study of child language ACQUISITION, a suggested DISCOVERY PROCEDURE whereby children make deductions about the SEMANTICS OF SYNTAX of a language from their observations of language use. In **semantic bootstrapping**, children are thought to use semantic information to make deductions about syntax – for example, knowing something about the meaning of a VERB (e.g. that *give* involves a giver, a gift and a receiver) may help them to work out semantic ROLES and thus syntactic REALIZATIONS. In **syntactic bootstrapping**, the

child uses syntactic or morphological information to make deductions about semantics – for example, using INFLECTIONAL clues to distinguish types of WORD, thus providing a means of assigning preliminary meanings to unfamiliar words. The term derives from mythology (where Baron Münchhausen saves himself by lifting himself up by his own bootstraps) and computing (where it refers to a short program used to load a longer program from disk into the computer, thus enabling the longer program to operate the computer).

borrowing (n.) A term used in Comparative and Historical linguistics to refer to a linguistic form taken over by one Language or dialect from another; such borrowings are usually known as 'loan words' (e.g. restaurant, bonhomie, chagrin, which have come into English from French), and several types have been recognized. Less commonly, sounds and Grammatical structures may be borrowed, e.g. the pronunciation of the above loan words with a French or quasi-French accent, or the influence of English grammar often found in European languages, e.g. using an English plural -s for a noun, as in drinks, ski-lifts, goals, girls.

bottom-up (*adj*.) In several branches of LINGUISTICS, a term which informally characterizes any procedure or MODEL which begins with the smallest functional UNITS in a HIERARCHY and proceeds to combine these into larger units; opposed to **top-down**, which begins with the analysis of a high-level unit into progressively smaller units. For example, in GRAMMAR, models which begin with MORPHEMES or WORDS are 'bottom-up grammars', those which begin with SENTENCE, CLAUSE or some DISCOURSE unit are 'top-down grammars'. The distinction is also used in the analysis of text structure in textlinguistics and STYLISTICS, in some approaches to NON-LINEAR PHONOLOGY, in the teaching of reading (phonics *v*. whole word), and also in relation to models of mental PROCESSING in PSYCHOLINGUISTICS and PARSING procedures in COMPUTATIONAL LINGUISTICS.

**bound** (adj.) (1) A term used as part of the classification of MORPHEMES; opposed to FREE. A **bound morpheme** (or **bound form**) is one which cannot occur on its own as a separate WORD, e.g. the various AFFIXES de-, -tion, -ize, etc.

- (2) A term used in logic, and frequently encountered in Grammatical and Semantic theory, applying to Variables which are semantically dependent on a Quantifier or other operator. In the binding sub-theory of Government-Binding theory it refers to constituents which have been formally related through co-indexing: X is bound if it is an argument co-indexed with a c-commanding argument. Its opposite is free. Some constituents (specifically, anaphors) must be bound (A-bound) in their governing category, and some (variables and R-expressions) must be free, otherwise the structures are ill formed. Variables must be A-bar bound co-indexed with a c-commanding element in an A-bar position.
- (3) See FORMULAIC LANGUAGE.

**boundary-symbol** Symbols used in Transformational Grammar to indicate the boundaries between STRUCTURAL UNITS, e.g. the ELEMENTS of a STRING (+), or the boundaries of strings (#), e.g. # the+man+pres+have+en-+kick+the+ball #. The notion has a central role in some models of PHONOLOGY, where the DOMAINS

of phonological RULES can be expressed in terms of phonological boundary symbols. Boundary strength is quantitative, expressed by the number of symbols present. A given phonological rule specifies only the minimal boundary strength across which it cannot apply. See also JUNCTURE.

boundary tone In some analyses of intonation, a tone typically positioned at the edge of a phrasal constituent. High (H) and Low (L) tones are recognized as having important boundary roles, expressing such functions as assertion, question and continuation. An asterisk is used to identify a tone that is realized on the stressed syllable (H\*, L\*), and a % symbol is used to show that a tone associates with the edge syllable of a phrase (H%, L%). The notion, applied to a wide range of languages, subsumes effects which are usually handled separately (e.g. nuclear tone, syllabic accent, pitch accent). Utterance spans which are dominated by boundary tones are intonational phrases. 'Medial' boundary tones are also recognized, positioned at certain points within a constituent, marking an intermediate-level phrase.

bounded foot see BOUNDEDNESS, FOOT (1)

**boundedness** (*n*.) In METRICAL PHONOLOGY, a FOOT-shape PARAMETER which governs the DISTRIBUTION of STRESSES. **Bounded feet** contain no more than two SYLLABLES, and stresses fall within limited distances from each other and from word EDGES. Unbounded feet have no restriction in size or on stress distribution.

bounding theory One of the (sub-)theories of GOVERNMENT-BINDING THEORY, which sets limits on the domain of MOVEMENT rules. Its chief principle is SUBJACENCY, which states that no movement operation can cross more than one BARRIER. In EXTENDED STANDARD THEORY and early GB theory, barriers to movement were known as bounding nodes, commonly assumed to be NP and S.

**bow-wow theory** In HISTORICAL LINGUISTICS, the name of one of the speculative theories about the origins of LANGUAGE: it argues that SPEECH arose through people imitating the sounds of the environment, especially animal calls. The main evidence is the use of onomatopoeic words (which are few, in most languages). See SOUND-SYMBOLISM.

brace notation, bracket notation see BRACKETING

bracketed grid see METRICAL GRID

bracketing (n.) (1) A technique used in LINGUISTICS to display the internal (HIERARCHICAL) structure of a STRING OF ELEMENTS, in a similar manner to that used in mathematics and symbolic logic. In the SENTENCE *The cat saw the king*, for example, the various intuitively motivated divisions it is possible to make are each associated with the imposition of a pair of brackets on to the sentence, e.g. distinguishing the cat from the king would lead to the representation [the cat] [saw] [the king]. Each pair of brackets may be associated with a label which indicates the GRAMMATICAL reason for their presence (a labelled bracketing), for example:

[the cat]
$$_{\substack{\text{Subject}\\ \text{NP}}}$$
 [saw] $_{\substack{\text{Verb}}}$  [the king] $_{\substack{\text{Object}\\ \text{NP}}}$ 

In a more sophisticated analysis, the order in which the pairs of brackets are applied is also made explicit, as in PHRASE-STRUCTURE GRAMMAR (here illustrated without labelling), for example:

```
Sentence unit [the cat saw the king]
SUBJECT/ PREDICATE (or NP + VP) [[the cat] [saw the king]]
VERB/ OBJECT (or V + NP) [[the cat][[saw][the king]]]
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It is plain that, as sentences become more complex, the sets of brackets within brackets will become increasingly difficult to read. The TREE diagram display is the most widely used convention to overcome this difficulty.

- (2) Many of the abbreviating conventions used in writing a grammar involve brackets. In GENERATIVE grammar, the following kinds of brackets are widely used to conflate RULES:
- (a) parenthesis notation (round brackets) ( ) encloses OPTIONAL elements, e.g. a rule involving D(Adj)N refers to the potential occurrence of two STRUCTURES, DN and D Adj N;
- (b) brace notation (curly brackets) { } encloses alternative elements, e.g. a rule involving  $D \begin{Bmatrix} Adj \\ N \end{Bmatrix} N$  refers to the selection of only one of the two structures, *either* D Adj N *or* DNN. In other approaches these brackets are used to indicate MORPHEMES, or MORPHOPHONEMIC forms;
- (c) bracket notation [] requires that elements be matched along the same horizontal row, e.g.  $\begin{bmatrix} A \\ B \end{bmatrix} \rightarrow \begin{bmatrix} C \\ D \end{bmatrix}$  reads that 'A becomes C' and 'B becomes D';
- (d) angled brackets notation <> signals an interdependency between optional features in generative PHONOLOGY, e.g.  $\begin{bmatrix} +A \\ <+B> \end{bmatrix} \rightarrow \begin{bmatrix} +C \\ <+D> \end{bmatrix}$  reads that 'feature A

becomes feature C, and if feature B is present it becomes feature D'. In other approaches these brackets may be used to indicate GRAPHEMES.

- (3) In PHONETICS, there are two main uses of brackets: square brackets enclose a segmental phonetic transcription or a distinctive feature notation (e.g. [+grave]); slashes // enclose PHONEMIC transcription.
- (4) Square brackets are also used to enclose FEATURES at a GRAMMATICAL or SEMANTIC LEVEL, e.g. [+common], [-countable], [+male], [-female].

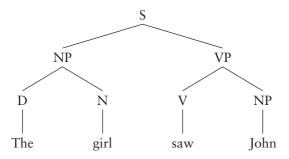
bracketing paradox In Generative Phonology, a term used for cases in which two incompatible ways of ordering rules are both well motivated. A rule can be applied to a substring containing the morphemes [A B], as part of a string [A B C], even though the corresponding morphological constituent structure [A [B C]] does not identify [A B] as a well-formed constituent. A much-discussed example is the constituency of the word ungrammaticality, represented morphologically as  $[[un[grammatical]_{ADJ}]_{ADJ}]_{ity}]_N$ . Because un- is a prefix which attaches to ADJECTIVES, and not nouns, it needs to be shown to attach to the STEM

breathy 59

before the *-ity* SUFFIX applies. However, phonologically, the opposite situation obtains. Here, the representation has to be  $[un[[grammatical]ity]_1]_2]$ , because the *-ity* suffix triggers a STRESS shift (and other changes) in the stem, and thus has to apply first; un-, which causes no such effects, should apply second.

# branch (n.) see FAMILY

branching (adj./n.) A term used in LINGUISTICS to refer to the descending linear connections which constitute the identity of a TREE diagram. PHRASE STRUCTURE RULES which generate such trees are sometimes called branching rules. The S, the first NP and the VP in the diagram are branching nodes; the other NODES are



non-branching. It has sometimes been suggested that binary branching is the norm in a PHRASE-MARKER. See also BINARY FEATURE.

branching quantifiers A term used in SEMANTICS for a non-linear SCOPE configuration of multiple QUANTIFIERS, in which two or more quantifiers take scope over the same clause, but neither quantifier takes scope over the other. For example, in *Most relatives of each villager and most relatives of each townsman love each other*, the quantifiers in either CONJUNCT do not take scope over the quantifiers in the other conjunct.

breath group (n.) A stretch of utterance produced within a single expiration of breath. Where and how often one breathes while speaking can be of significance for the Linguist, in that the breathing pattern will impose a series of pauses on the utterance, and these will need to be related to phonological, grammatical and semantic structure. Within each breath group, also, it is possible that certain regularities exist, such as a predictable pattern of prominence or rhythm, and some investigators have used this notion as part of their study of a language's prosody (though terms such as tone unit are here more widely used). More recently, the term has been used as a means of identifying the earliest vocalization units in infants.

## breathiness (n.) see BREATHY

breathy (adj.) A term used in the PHONETIC classification of VOICE QUALITY, on the basis of ARTICULATORY and AUDITORY criteria. Breathiness refers to a vocal effect produced by allowing a great deal of air to pass through a slightly open

60 bridge

GLOTTIS: this effect is also sometimes called **murmur**. Some speakers do have an abnormally breathy voice quality, as a permanent feature of their speech. What is of particular significance for linguistic analysis is that breathy effects may be used with CONTRASTIVE force, communicating a PARALINGUISTIC meaning: the whole of an UTTERANCE may be thus affected, as in an extremely shocked pronunciation of *Oh really!* 'Breathy voice', or 'breathy phonation', is also sometimes encountered as a PHONOLOGICAL characteristic, as in Gujarati, where there is an opposition between **breathy** and **non-breathy** vowels. See also ASPIRATION.

bridge (n.) A term sometimes used in GRAMMAR to refer to a CLASS of VERBS which allow long-distance extraction from their sentential COMPLEMENTS. Bridge verbs, such as say, contrast with non-bridge verbs, such as the manner-of-speaking verbs whisper, guffaw and sigh, which do not allow such extraction: Who did Mary say that John saw? v. \*Who did Mary whisper that John saw?

**broad** (*adj*.) A term used in the classification of types of PHONETIC TRANSCRIPTION. A 'broad' transcription is less detailed than a 'narrow' transcription.

**buccal** (*adj*.) A term occasionally used in articulatory phonetics as an alternative to ORAL (as in 'buccal cavity'), but more often with reference to sounds made specifically within the cavity of the cheek. A well-known 'buccal voice' is that produced by Donald Duck. See DEBUCCALIZED.

bunch (v.), bunched (adj.) see BUNCHING

bunching (n.) A term used in ARTICULATORY PHONETICS to refer to a TONGUE position in which the body of the tongue is held high and tense (bunched) during the production of a sound, as in CLOSE VOWELS (e.g. [i], [u]), and FRICATIVES articulated in the PALATAL-ALVEOLAR area (e.g. [ʃ]).

bundle (n.) A term used in Phonology to characterize one conception of the Phoneme: in the approach of the Prague School the phoneme is seen as an aggregate ('bundle') of Phonetic Distinctive Features. The English phonome /s/, for example, can be seen as a result of the combination of the features of Alveolarity, Friction, Voicelessness, etc.

**burst** (*n*.) A term used in ACOUSTIC PHONETICS, referring to a sudden, short peak of acoustic energy which occurs in the production of certain sounds, such as at the release stage of PLOSIVES, and in some FLAPS and TRILLS.

byname (n.) In ONOMASTICS, a supplementary name, added to someone's personal name in order to help identification, and sometimes replacing it completely. For example, several singers with identical surnames in Wales are publicly known by their village of origin (e.g. Williams Penygroes, Williams Brynsiencyn). History is full of bynames – Eric the Red, James the Bold, Ethelred the Unready. A byname can in principle be distinguished from a surname, because it is not its purpose to be passed on between generations; however, many surnames undoubtedly started out life as bynames (e.g. Michael Carpenter).