Linguistics: Markedness

Linguistics: Overview

Linguistics, conventionally defined as the scientific study of language, has generated a wide range of branches, subdisciplines, schools of thought, and applications, many of which are given separate treatment in the encyclopedia. This article provides a perspective within which these and other aspects can be interrelated, insofar as they use the word 'linguistics' as part of their identity.

1. Linguistics as a Science

Linguistics achieved its academic identity during the twentieth century, shaped in the first few decades by a series of pioneering and influential personal statements (notably Saussure 1916, Sapir 1921, Bloomfield 1933), consolidated in the middle decades as a university subject at both undergraduate and graduate levels, and reinterpreted in the later decades by a new generation of scholars concerned to give the subject a sound theoretical foundation (notably Chomsky 1957, 1965). In Europe, its origins lay chiefly in a reaction to the philological curiosity about the history and origins of language, which had preoccupied the nineteenth century; in the USA, the primary impetus came from a concern to provide a linguistic dimension to the anthropological investigations of American Indian cultures. But the subject also benefited from an increased general interest in the study of language in relation to human beliefs and behavior (e.g., in philosophy, theology, information theory, literary criticism, communication studies), which manifested itself at both popular and specialized levels. The development of the media, especially broadcasting, further helped to bring language issues to the forefront of national consciousnesses, as did the demands made by foreign-language teachers and other 'language professionals' for more sophisticated information about their subject.

The multiplicity of interests in the subject, each with its own intellectual agenda and methodologies of inquiry, brought a profound appreciation of the range and complexity of linguistic phenomena, and thus of the need to develop a research discipline with its own principles and procedures. Early on, linguistics came to be viewed as a 'science,' and attempts were made to define its axioms and make its investigative procedures explicit (e.g., Bloomfield 1926, Hjelmslev 1943). Linguists emphasized their concern to make their studies systematic and objective, by contrast with the selective impressionism which had characterized much previous literary and pedagogical work on language. A great deal of attention was devoted to making investigative procedures clear and well defined. There was a significant growth, fostered by progress in acoustic technology, of experimental techniques, especially in phonetics. And there was an unprecedented concern for precise definition, clear and comprehensive description, and more powerful explanation. An emphasis in the first half of the century on the procedures for describing individual languages, or the features of language families, changed during the second half into an emphasis on the universal, defining properties of language, and on the nature of language viewed as part of human biology and psychology. Yet there were significant continuities too. Chomsky's focus on the distinction between linguistic competence and performance, and on the status of language as an 'organ of the mind,' echoed Saussure's notions of the collective language system (langue) and its concrete manifestation in utterance (parole), and of the human language faculty (faculté de langage).

Because of its claims to scientific stature, the subject has often been referred to as 'linguistic science,' but sometimes a designation of 'linguistic sciences' will be encountered. The choice hinges on the perceived standing of phonetics. In the 'plural' interpretation, phonetics is seen as a separate discipline, which along with linguistics makes up the linguistic sciences. The reasoning is that the subject-matter of phonetics—which includes acoustics, anatomy, physiology, neurology, and auditory perception—is so different from the 'rest' of linguistics that it cannot sensibly be subsumed under the same heading. Moreover, its
methodology is very different, both in its experimental approach and in its reliance on technology. It is, some argue accordingly, a pre-language study, and its findings need to be brought into relationship with those of linguistics. Others, however, point to the fact that the bulk of the subject deals only with those aspects of sound production and processing that are relevant to the production of spoken language.

Phonetics focuses on such entities as vowels, consonants, and pitch movements, and not on such noises as whistles, hiccups, and burps, even though these are also made by the vocal apparatus. Its aim is to explicate speech sound, and as it is speech which is the ground of being for all languages (writing being present only in a proportion of instances), this alternative argument sees phonetics as the 'indispensable foundation' (Henderson 1971) for linguistics—one branch of a single linguistic science. (The term 'linguistics,' of course, avoids the need to make a decision.) A similar issue appears when the focus is on speech alone. Speech science (or speech and hearing science) is the study of all the factors involved in the production, transmission, and reception of speech; but speech sciences will also be found, when there is a need to emphasize the constituent disciplines involved.

2. Classification by Orientation

These changes of emphasis and direction, which are an inevitable part of the intellectual development of a subject, have given rise to a range of designations for linguistics, each of which captures a particular orientation or 'universe of interest.' The earliest of these, introduced by Saussure, was chronological, distinguishing diachronic linguistics from synchronic linguistics. This terminology reflects his concern to move away from an exclusively historical approach for the study of language to one in which a language is seen as existing at a particular moment (or 'state') in time, 'syn-chronically,' regardless of whatever may have happened to it previously or would happen to it subsequently. Most linguistic research is synchronic, in the sense that linguists are aiming to establish the nature of the system of rules which define a (part of a) language's expressive potential at any one time. For example, the word 'balcony' currently has a stress on its first syllable, and this is what would be noted as part of a synchronic description of modern English stress; the fact that, over a century ago, the stress was on the second syllable, would not be considered relevant. On the other hand, in a diachronic description, the way the stress has shifted is of central relevance—not least because the process is continuing in many other words, such as 'dispute' and 'research.' Saussure saw the two chronological orientations as intersecting—an 'axis of simultaneities' crossing an 'axis of successivities'—and this point of intersection must not be ignored. Uncertainties about usage are one example of the way in which ongoing language change complicates a synchronic analysis. But the point of the distinction is widely appreciated, and Saussure's refocusing has been so successful that it has long been standard practice to interpret the word 'linguistics' as meaning 'synchronic linguistics,' with references to the other orientation requiring a more explicit phrase—usually, these days, 'historical linguistics.'

Another type of orientation relates to the generality of a linguistic inquiry. As already mentioned, a contemporary focus on language is to make statements of maximal generality: the aim is to determine what it is that defines the notion of 'human language.' All languages have a great deal in common in the way they produce sounds, organize their grammars, and construct systems of meaning in words. Identifying the universal principles which govern language, and demonstrating how these principles apply in individual circumstances to produce the languages known to us as French, English, Chinese, Swahili, etc., is the primary aim of theoretical linguistics. The term 'theory' here has its standard scientific application, reflecting the need for explanation of a maximally general kind, and the provision of fruitful models which will generate testable hypotheses about, in this case, linguistic structure and use. Theoretical linguists do not study a language because they are interested in that language per se; they study it because of what it can tell them about the nature of language in general. A particular language may be especially interesting because it makes use of a type of sound or grammatical construction that other languages do not. The label 'general linguistics' is often used to capture this breadth of vision. A further consequence of this approach is that, once some linguistic data has been accumulated, a special concern is to find the best way of analyzing it. There are so many variables in pronunciation, grammar, and vocabulary that it is possible to envision an indefinitely large number of ways of showing how these domains are organized. Theoretical linguists spend much of their time searching for plausible and elegant analyses, and identifying criteria for their evaluation.

One of the controversies in the profession relates to this point. According to some linguists, as a result of the above orientation, the subject has become 'too general.' Analyses which try to achieve maximal generality inevitably make statements which are highly abstract, and seem to be far removed from the description of individual languages, and of the way these are used in everyday speech and writing. The emphasis on achieving generality, according to this view, has brought a de-emphasis on individuality—of what it is that makes one language unique, different from all the others. While it is accepted that, in the long term, all the idiosyncrasies of individual languages may be explicable with reference to general rules, there is seen to be no likelihood of this happening.
in the foreseeable future. In the meantime, the need to provide descriptions which are as full as possible is as important now as it ever was. Indeed, this focus on the special character of a particular language was given special urgency in the 1990s, when it was realized just how many of the world’s languages are near the point of extinction. Of the 6,000 or so languages in the world, it is widely thought that half are likely to die out within the next 100 years (Crystal 2000). The need to make descriptions of the languages most at risk is therefore a priority for the subject, for once a language dies which has never been written down or recorded in any way, it is as if it had never been. This orientation for the subject, where the aim is to make as complete as possible a description of a language, in all its varieties, is usually referred to as descriptive linguistics.

It is not only the endangered languages which benefit from a descriptive approach, therefore. Descriptive accounts of English, German, Japanese, and all the other ‘safe’ languages are also important. ‘Descriptive’ here is being seen in contrast with ‘traditional,’ referring to the tradition of language inquiry which antedated the emergence of twentieth-century linguistics, and which was characterized—especially in the field of grammar—by prescriptive and proscriptive rules about usage, purist condemnation of language change, and the distorted description of modern languages through the use of a model of description derived from Latin. In the field of English, the need for more realistic description was the driving force behind many grammars, pronunciation guides, and dictionaries, especially from the 1950s on (e.g., Jones 1956, Fries 1952, Quirk et al. 1972). A particular consequence of this orientation was the provision, in some countries, of new syllabuses and materials for use in schools and teacher-training courses—a change in some cases of direction which in the later decades of the century brought not a little heart-searching, as teachers found themselves engaging in a close encounter with a linguistically based conceptual apparatus and a partly unfamiliar terminology. At a research level, since the 1980s the descriptive orientation of linguistics has been given additional impetus through the use of computational methods of data collection and analysis. Large bodies of data, in some cases consisting of several hundred million words, are now available as sources of evidence for descriptive statement, in a field that has come to be called corpus linguistics.

A considerable conceptual distance separates the description of an individual language from a general account of the properties of human language, so it is not surprising to find orientations which occupy aspects of the ‘middle ground.’ It is possible to extend the descriptive orientation ‘upwards,’ bringing individual languages together in specific ways but without the inquiry necessarily bearing on a hypothesis about linguistic universals. This is the motivation behind comparative linguistics, where the purpose is to identify the chief similarities and differences between historical states of a language, between modern languages (e.g., those within a particular family, such as Romance or Germanic) or, in a more ambitious mode, between language families as wholes. This use of ‘comparative’ in fact antedates modern linguistics, being part of the designation of comparative philology, the subject which grew up at the end of the eighteenth century devoted to the historical comparison of Greek, Latin, Sanskrit, and their hypothetical antecedents, whence arose the concept of an Indo-European family of languages.

Applying the ‘comparative method’ to other languages which had written records was a natural extension, and philology (as it is today usually called) is practiced still, being distinguished from the orientation of historical linguistics partly by its aims and methods, and partly by the contrasting intellectual background (often from literature or history) of its practitioners. A related designation is typological linguistics, where the aim is to study the structural similarities between languages, regardless of their history, in order to locate them within a classification (or ‘typology’). This is the only possible method in cases where there are no written historical records—a situation in which most of the world’s languages find themselves.

When linguists talk about the structure of language, they are usually referring to the way a language can be analyzed into several dimensions susceptible of independent study. These dimensions are commonly referred to as ‘levels’ or ‘components,’ though terminology varies widely between linguistic models. Most accounts recognize three major levels of linguistic organization: a sound system (or phonology, including its interface with phonetics), a grammatical system (with a division often made between sentence-structure (syntax) and word-structure (morphology)), and an semantic system (typically focusing on vocabulary (the lexicon), though not thereby excluding other ways in which a language’s meaning is organized). The study of the written language necessitates the recognition of an additional level: an orthographic system (or graphology). And some linguists recognize other levels of analysis, such as one which extends linguistic inquiry above the sentence (a level of discourse, or text) or one which takes into account the way structure is altered when language is used interactively (pragmatics). Each of these terms has a variety of interpretations, depending on the theoretical approaches involved, but they all have one thing in common: they aim to explicate a domain of language structure, and are thus part of an orientation to the subject that might be legitimately called structural linguistics.

However, this designation has had a controversial position within the history of twentieth-century linguistic thought. In its early use, ‘structural’ linguistics referred to the particular approaches to phonology
and grammar which were current in the 1940s and 1950s, in the work of such linguists as Bloomfield. There, the emphasis was on finding methods which would establish the contrasting units in a language's sound system (the phonemes), identify the elements of word formation (the morphemes), and analyze sentence constructions into their constituent parts. In a somewhat broader sense, developing the initiatives of Saussure, a 'structuralist' ethos prevailed, which aimed to establish systems of relations between linguistic units—an approach which, under the heading of structuralism, came to influence thinking throughout the arts and social sciences. Within linguistics, it was in due course applied to further areas of linguistic structure (especially semantics), and extended by some linguists (such as Pike 1954-60) to other domains of human communicative behavior. The notion of system continued to play a central role in linguistic theories which emerged during the postwar period, notably in the work of Firth (1957) and his students, and later became central in the systemic linguistics of Halliday (Halliday and Fawcett 1987). It was the perceived limitations of the structuralist orientation, with its focus on the classification of structures and units at a 'surface' level of description within a corpus of data (linguistic 'performance'), which prompted its labeling as 'taxonomic' (with a pejorative implication) by Chomsky, and which motivated his initial formulation of generative linguistics (Chomsky 1957), with its concern to explicate underlying linguistic relations in ways that could account for the creative linguistic abilities (or 'competence') of the individual.

3. Classification by Interaction

The generative orientation constituted a revolution in linguistic thought; and although other kinds of linguistic theories and models continued to be devised and developed in the latter part of the century, it was the generative approach, in its various formulations, which provided the subject's center of gravity. At the same time, partly independent of this state of affairs and partly as a consequence of it, several areas of interaction with other academic disciplines emerged. These 'hybrid' subjects were the result of a synergy between two intellectual streams. On the one hand, linguists sensed that they needed to take their subject in fresh directions if they wished to account for everything that influenced the way people spoke and wrote (and also signed, for the analysis of deaf signing was also emerging as a new research field). On the other hand, scholars in other academic disciplines were finding that they needed to provide more sophisticated accounts of language structure and use in order to maintain their own research agendas. The potential for interaction had in some cases been recognized for many years. In the case of the interaction between linguistics and anthropology, it had been there from the earliest days of the subject (Boas 1911). The difference was partly in the way hybrid labels came to be institutionalized as 'recognized' domains for teaching and research (anthropological linguistics, in this case), and partly in the cross-disciplinary climate of the times, which gave rise to nearly two dozen such hybrids by the turn of the century.

There is not always a total meeting of minds in these interdisciplinary encounters: the orientation given to the hybrid subject within a linguistics department is by no means identical with the orientation it is given within the department which constitutes the other half of the hybrid. For example, one of the areas of inquiry in psycholinguistics is the relationship between language and memory. When a linguist investigates how language is affected by memory and a psychologist investigates how memory is affected by language, it might be thought that the two directions of inquiry would 'meet in the middle.' In practice, differences in the researchers' intellectual histories, theoretical aims, and research procedures can produce widely divergent accounts. One need only look at the list of references at the end of journal articles to see how authors, ostensibly investigating the same subject, can come from different directions. There may be a difference of labeling, which may reflect a difference of orientation—as in sociolinguistics (a branch of linguistics) alongside the sociology of language (a branch of sociology), or philosophical linguistics (a branch of linguistics) alongside linguistic philosophy (a particular approach within philosophy). Nonetheless, the shared subject-matter, and a growing mutual familiarity with the intellectual background of the contributing disciplines, produced in the last quarter of the twentieth century a growing number of research collaborations, interdisciplinary conferences, jointly authored textbooks, and shared teaching courses in many of these hybrid subjects, resulting in a growing identity and coherence.

Hybrid subjects can be placed in clusters, on the basis of an overlap in their subject-matter. The earliest clusters to be given clear definition all relate to a concern to see language in its cultural and social context. Anthropological linguistics (or linguistic anthropology) focuses on language variation and use in relation to human cultural patterns and beliefs (in its early years, especially on the Amerindian peoples of North America). Overlapping with this is ethnolinguistics, studying language in relation to ethnic types and behavior, and widely practiced through approaches (variously called the ethnography of communication or ethnography of speaking) which analyze the entire range of variables, extralinguistic as well as linguistic, involved in social interaction. Sociolinguistics, studying all aspects of the relationship between language and society, is the most well established of this cluster of subjects, and is often used as a covering label for all domains of inquiry in which there is a preoccupation with the social func-
tions of language. However, sociolinguistics is sometimes differentiated from it, particularly in mainland Europe, reflecting a concern to see language as an integral part of sociological theory. So too is interactional sociolinguistics, referring to the study of speech in face-to-face communication.

Several other facets of the sociolinguistic cluster have maintained their individual nomenclature. One example is dialectology (sometimes called dialect geography), which focuses on the properties of regional (and more recently social) dialects. Another is areal linguistics, which studies the linguistic properties (languages as well as dialects) of large geographical regions—such as Western Europe or the British Isles. Closely related is geolinguistics (also geographical linguistics), which studies the geographical distribution of languages throughout the world with reference to their political, economic, and cultural status. Pragmalinguistics studies language use from the viewpoint of a language's structural resources; it contrasts with those pragmatic studies which examine the conditions on language use deriving from the social situation (sometimes referred to as sociopragmatics). Finally, there is the study of (linguistic) style, stylistics—a study which, though chiefly concerned with the nature of the personal linguistic identity of individuals (especially in a literary context), has often been extended to include the distinctive linguistic features of group-identifying functions of language, such as are found in advertising, science, and the media. When the focus is specifically on the distinctive language used in social institutions, such as law, medicine, and religion, some linguists use the label institutional linguistics.

Another cluster of hybrid subjects looks at language in relation to human biology. In its broadest characterization, the subject is referred to as biological linguistics (or biolinguistics), focusing on the preconditions for language development and use from the viewpoints of both the history of language in the human race and the development of language in the individual (the latter topic usually being distinguished by the name developmental linguistics or child language acquisition). Its topics include the genetic transmission of language, neurophysiological models of language production, and the anatomical comparison of humans and other species. It also subsumes the study of pathological forms of language behavior (as in aphasia, dyslexia, and language delay), though the complexity of these conditions, and the interdisciplinary nature of their diagnosis and treatment, has prompted the development of separate specialisms. Chief among these is neurolinguistics (sometimes referred to as neurological linguistics), which focuses on the neurological basis of language development and use, in particular aiming to understand the way the brain controls the processes of speaking, listening, reading, writing, and signing. Although its focus is on clinically normal states, much of its evi-
involvement in the other direction—in relation to such matters as computer programming, information retrieval, document identification, indexing, reference science, and knowledge management—has been limited to isolated projects, and has not yet resulted in a hybrid label, though one imagines that, given the growth in this area, the emergence of Internet linguistics can only be a matter of time.

Not all hybrid terms can be neatly clustered. Some, by their nature, stand outside of classification, because their role is to evaluate aspects of the field as a whole. The study of the history of ideas in linguistics is linguistic historiography. Philosophical linguistics studies the role of language in relation to the understanding and elucidation of philosophical concepts, as well as the philosophical status of linguistic theories, methods, and observations. Critical linguistics emerged in the 1990s with the aim of revealing hidden power relations and ideological processes at work in spoken or written texts. Critical linguists criticize mainstream linguistics for its formalist preoccupations, its lack of adequate social explanations, and its obscuring of ideological and political issues. This 'critical' perspective may be applied to individual branches of the subject. In particular, critical discourse analysis studies the relationship between discourse events and socio-political and cultural factors, especially the way discourse is ideologically influenced by, and can itself influence, power relations in society.

4. Applications and Extensions

The list of possible hybrid subjects involving linguistics is by no means exhausted by the above itemization, and new ones will doubtless emerge. A similar potential for expansion is also found in the various domains of applied linguistics. In its broadest definition, this is the application of linguistic theories, methods, and findings to the elucidation of language problems which have arisen in other areas of experience. The most established and well-developed branch is the teaching and learning of foreign languages, and sometimes the term is used as if this were the only domain involved. But several other domains of application have emerged since the middle of the twentieth century, including speech pathology and therapy, the teaching of the deaf, mother-tongue education, the writing of dictionaries (lexicography), the analysis of literary texts (literary stylistics), and translation studies. Quite restricted and specialized domains may be encountered. For example, theoretical linguistics has as its focus the study of the way language is used in theological, biblical, and other branches of religious studies. Forensic linguistics is the use of linguistic techniques to investigate crimes in which language data forms part of the evidence, such as in the use of grammatical or lexical criteria to authenticate police statements. The field of forensic phonetics is often distinguished as a separate domain, dealing with such matters as speaker identification, voice line-ups, speaker profiling, tape enhancement, tape authentication, and the decoding of disputed utterances.

There is an uncertain boundary between applied linguistics and the various interdisciplinary subjects reviewed in Sect. 3, especially as several of those concerns involve practical outcomes (e.g., planning a national language policy within sociolinguistics). On the other hand, as these hybrid subjects develop their own theoretical foundations, the distinction between 'pure' and 'applied' is becoming more evident, and terminological distinctions such as that between (theoretical) psycholinguistics and applied psycholinguistics are now more regularly encountered.

The term 'linguistics' will also be encountered in a wide range of other contexts, where it is often no more than a loosely used synonym for 'school of thought' or 'approach,' or even a stylistic replacement for the word language or grammar. Very general states of mind on the part of the investigator can be given a linguistics designation. For example, mentalist(ic) linguistics is contrasted with behaviorist linguistics. Macrolinguistics, representing a relatively broad frame of reference for linguistic inquiry, is opposed to microlinguistics. In relation to schools, we find such usages as Cartesian linguistics (showing the influence of Descartes), Chomskyan linguistics (from N. Chomsky), Whorfian linguistics (from B. L. Whorf), Saussurean linguistics (from F. de Saussure), Firthian linguistics (from J. R. Firth), and neo-Firthian linguistics (scholars whose teaching derived from Firth's influence, notably M. A. K. Halliday (whose name has, in turn, been given to Hallidayan linguistics).

At this level, there is an appreciable overlap with the relevant aspect of language which is the focus of an approach—for example, the terms Chomskyan linguistics and Chomskyan grammar are often used synonymously, as are Whorfian linguistics and Whorfian semantics. The same point applies to such general approaches as functional(ist) linguistics, which treats the notion of function as central, especially in grammar, and thus allows a terminological overlap with functional(ist) grammar. Systemic and polysystemic linguistics (which treat the notion of system as central) may also be found alongside systemic and polysystemic grammar. Virtually any variety or use of language can be focused in this way, as in creole linguistics (= the linguistic study of creole languages) and paralinguistics (= the linguistic study of paralanguage—tones of voice, facial expressions, etc). But eventually, as increasingly restricted areas of inquiry are encountered, the use of the general term ceases to have a point, and linguists replace it by specific terms such as morphology, phonology, lexicology, semantics, onomastics, and other structural labels best explicated under the heading of 'language.'
Bibliography

Bloomfield L 1926 A set of postulates for the science of language. 
Language 2: 153-64


Boas F (ed.) 1911 Handbook of American Indian Languages. 
Smithsonian Institution, Washington, DC

Oxford University Press, Oxford, UK

Chomsky A N 1957 Syntactic Structures. Mouton, The Hague, the Netherlands


Firth J R 1957 A synopsis of linguistic theory, 1930-55. In: 


Pike K L 1954-60 Language in Relation to a Unified Theory of the Structure of Human Behavior. Summer Institute of Linguistics, Glendale, CA


Sapir E 1921 Language. Harcourt Brace, New York


D. Crystal