Modern Linguistics: 1800 to the Present Day

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Introduction

It is during the course of the 19th century that we first find linguists self-consciously making statements about the history of their own discipline. The very fact that they do so is part of the *prima facie* evidence for the existence of that discipline (as indeed it was intended to be). For, it need hardly be said, their main concern was not so much to establish what had happened in the past as to establish the contemporary autonomy of their own branch of inquiry. For this purpose they usually adopted a familiar "torch of learning" model, in which knowledge is passed on from one age to the next. As successive generations fan the sacred Flame with their own contribution, it burns ever brighter. The current torch-holder often turns out to be the scholar telling the story, or a close colleague.

This pattern of historical self-justification has been repeated more or less without interruption in linguistics from 1800 down to the present day, beginning with the Comparative Philologists and continuing with the Neogrammarians. A classic case from the early 20th century is the introductory chapter in F. de Saussure's *Cours de linguistique générale* (1916), which itself recruits the Comparative Philologists and the Neogrammarians as honorable predecessors. Another is chapters 1–4 of *Language: its nature, development and origin* (Jespersen, 1922). A third is chapter 1 of *Language* (Bloomfield, 1933). A fourth and even more blatant example (if that were possible) is *Linguistics* (Fries, 1966), which leads up to what Fries calls triumphantly "the breakthrough" of American structural linguistics and the arrival of transformational-generative grammar. Endemic to this self-justificatory pattern is the notion that one's predecessors, although great scholars, never quite got it right (or even, occasionally, got it wrong, thus all but extinguishing the Flame).

Underlying most of these self-justificatory historical accounts lies a concern to show that linguistics is – or at last has now, i.e., in the author's own generation, become – a 'science.' This anxiety is bound up with the whole question of the academic prestige of 'the sciences' as developed in 19th- and 20th-century universities in Europe, and the diminishing prestige of 'the arts.' 'Science' was from the beginning a watchword or slogan that modern linguistics appropriated as its own, thus implicitly distinguishing the subject from all 'pre-scientific' studies of language and languages. It is emphatically reaffirmed in the glossary to the first edition of this encyclopedia, which contains the blunt propagandist equation "linguistic science = linguistics" (Asher, 1994).

The brief account that follows describes the main phases usually identified in this self-serving tradition of historiography. It makes no attempt to list all the individual 'schools' and 'movements' that have contributed to modern linguistics, let alone all the eminent scholars. Nor does it cover 'applied' linguistics in such diverse areas as language acquisition, language pathology, language planning, language teaching, and psycholinguistics.

Comparative Philology

Modern linguistics is usually portrayed as arising out of a preceding inquiry called Comparative Philology or Comparative Grammar. The Comparativists were already anxious to distinguish themselves from an earlier scholarly tradition that they often referred to as Classical Philology. Adopting a "torch of learning" model requires an identification of some person or persons who first lit the torch. That role was retrospectively thrust, by the Comparativists and their successors, upon Sir William Jones (1746–1794).

According to later scholars seeking to validate their version of the history of linguistics, the stimulus that Jones provided to 19th-century developments was 'immense' (Robins, 1994). But this overenthusiastic claim is based mainly on the endless quotation of one paragraph from a single lecture that Jones gave in India to the Asiatic Society in 1786. There he proposed that Sanskrit, Greek, and Latin were languages that might be derived from "some common source, which, perhaps, no longer exists." He also suggested in the same paragraph that Gothic, Celtic, and Old Persian might have belonged to the same family.

On this flimsy evidence, Jones could hardly have anticipated that later generations would hail him as a 'founder' of Comparative Philology, much less as 'the first modern linguist.' Jones was a newly arrived British judge sent out from London to administer colonial justice in India. What he saw was the practical advantage of having at his disposal a digest of Hindu and Islamic law. For this purpose, a knowledge of Sanskrit was essential, and he applied himself to it. The irony is that Jones himself had no great regard for philological studies as such. As far as he was concerned, languages were "mere instruments of

real learning." They were not objects of study in their own right.

But that, precisely, was the central notion of the Comparativists. In their view, languages were in themselves organic growths, developing in accordance with their own organic nature, and therefore qualifying as raw 'materials' for a modern science of language. On this basis, as F. M. Müller (1823–1900), first professor of Comparative Philology at Oxford, insisted, it was possible to envisage the study of languages as comparable to such natural sciences as biology and astronomy. But no such project was further from the mind of Jones.

The scholars who, in practice, set up Comparative Philology as an academic discipline were J. Grimm (1785–1863), R. Rask (1787–1832), and F. Bopp (1791–1867). Their work had as its focus the comparative study of the Indo-European languages. They were not engaged in what later came to be known as 'general linguistics,' except insofar as their methods and arguments presupposed certain assumptions about the 'nature' of language. One of their preoccupations was the historical task of 'reconstructing' the unattested ancestral language from which, they assumed, all Indo-European languages had sprung. In this respect, they placed previously inchoate discussions of linguistic origins on a new footing (*see* **Western Linguistic Thought Before 1800**).

The Neogrammarians

The Neogrammarians are seen as marking an 'advance' on Comparative Philology, inasmuch as they endeavored, in the mid 19th century, to establish 'laws' of linguistic development. Discovering 'laws' was then regarded as a *sine qua non* for setting up a 'science.' The principal figures in the Neogrammarian (*Junggrammatiker*) movement were acknowledged to be H. Osthoff (1847–1909), K. Brugmann (1849–1919), A. Leskien (1840–1916), and H. Paul (1846–1921). Their main claim to fame was their formulation of the principle that the 'laws' of sound change hold without exception. Thus if, for example, an intervocalic stop consonant becomes a fricative in one word, this is predicted to happen in all such words when that sound occurs in a similar environment in the same language. In this respect, the Neogrammarians supposedly brought linguistics in line with the 19th-century conception of the natural sciences. Osthoff spoke of the "blind necessity" with which sound laws operate. (Cf. the Newtonian law of gravitation.) The claim itself is virtually worthless, since any instance of an exception could always, for the Neogrammarians, be accommodated by *ad hoc* modification of the 'law' in question. We end up with mere statements of what has been observed to happen with regularity in the past. The exceptionless laws are no more than products of their own hind-sighted formulation.

Saussurean Structuralism

Although F. de Saussure (1857–1913) paid great respect to the Neogrammarians, his approach opened up a quite different chapter in academic language studies. The posthumously published *Cours de linguistique générale* (1916), based on lecture notes taken by his students at the University of Geneva, came to be regarded as the Magna Carta of modern linguistics. In this work, linguistics is presented as one branch of a more all-embracing study of signs, which Saussure referred to as 'semiology' (*sémiologie*).

Saussure did not believe in linguistic 'laws.' He saw 19th-century 'historical' linguistics as a muddle and thought that the Neogrammarians offered no insight at all into what a language was for its speakers. He accordingly drew a fundamental distinction between 'synchronic' and 'diachronic' linguistics. Synchrony is often equated, but mistakenly, with a study of the present-day language. Nor is Saussure's *linguistique diachronique* a synonym for *linguistique historique*, as will be evident to anyone who reads attentively the section on that subject in the *Cours de linguistique générale*. But it was often misunderstood by later linguistic theorists.

Saussure did not mount an all-out attack on comparative and historical linguistics, but he shunted those inquiries into an intellectual siding from which they could make no effective contribution to answering the main questions that linguistic theory had to tackle.

For Saussure, *linguistique diachronique* was an academic edifice set up by the linguist, with a perspective altogether different from that available to the individual member of a linguistic community at any one time. *Linguistique synchronique*, on the other hand, was an attempt to capture the psychological reality underlying the way a typical member of the linguistic community uses its communal language. This distinction was, and always will be, controversial. Saussure himself did not help matters by sometimes appearing to identify the synchronic viewpoint with that of the traditional (prescriptive) grammarian.

Saussure's distinction between *langue* (the collective language system) and *parole* (the linguistic act of the individual) also remained a bone of contention. Although Saussure neither coined nor used the term "structuralism," this was the label later attached to his conception of synchronic analysis. Its principal

feature is that forms and meanings (*see* **Western Linguistic Thought Before 1800**) are not to be identified by matching them with anything external to language (e.g., sounds or physical objects), but solely by reference to internal (structural) contrasts arising within the language itself. Thus, for example, the form of the English word /bat/ cannot be stated in terms of the sequence of sounds [bat] but only by listing the contrasts that distinguish this word from /kat/, /fat/, /hat/, etc. This, for Saussure, is a necessary consequence of realizing that different languages operate with different sets of phonological contrasts: there is no fixed and finite set of phonemes valid for all languages. Similarly, the meaning of a word like *horse* cannot be stated by identifying a certain species of animal and saying that *horse* is the name of this species. Why not? Because different languages recognize different biological species. Thus Saussure's view of meaning departed radically both from traditional lexicography and from that of the founder of modern semantics, his older contemporary M. Bréal (1832–1915). Saussure rejects the entire nomenclaturist approach to language entrenched in the Western tradition. It follows from this that all languages are irreducibly different. They are not just alternative ways of expressing some universal set of concepts, as Aristotle and many others had supposed.

By adopting this uncompromisingly holistic approach to linguistic analysis, Saussure in effect pulled the theoretical rug from under both Comparative Philology and historical linguistics as practiced by the Neogrammarians. His ideas were taken up and developed, particularly in Europe, by the so-called Prague school of linguistics. Two of its leading members were N. Trubetzkoy (1890–1938), whose work on phonology became highly influential, and R. Jakobson (1896–1983). Another branch of structural linguistics emerged in Denmark as 'glossematics,' whose leading exponent was the Danish linguist L. Hjelmslev (1899–1965). In France, G. Guillaume (1883–1960) was responsible for a highly original exploration of – and reaction against – some Saussurean ideas, in propounding what he called the 'psychomechanics' of language.

During Saussure's lifetime, two other approaches – linguistic geography and linguistic anthropology – came to prominence in language studies.

Linguistic Geography

In Europe, dialectologists began the task of documenting current linguistic usage and the geographical distribution of linguistic features. This led to the compilation of the first linguistic 'atlases.' The earliest (1881) was that of the German dialectologist G. Wenker, who sent questionnaires to 30,000 German schoolteachers in an attempt to survey features of local pronunciation. A Romanian linguistic atlas was published by G. Weigand in 1909, compiled on the basis of direct interviews with informants. In France, J. Gilliéron and E. Edmont published (1902–1910) a linguistic atlas based on interviews carried out at more than 600 localities. All this early work was done without the benefit of sound-recording apparatus and thus depended very much on the linguist's ear and the transcription system used. From it emerged, however, one new (and controversial) theoretical concept: the 'isogloss.' Isoglosses were lines drawn on a map, demarcating areas in which a particular feature occurred and separating those from areas of non-occurrence. The study of isoglosses in turn gave rise to controversial conclusions concerning the existence of 'dialects,' which, according to some investigators, proved to be illusory.

J. Gilliéron (1854–1926), on the basis of his cartographical studies, pronounced the 'bankruptcy' of traditional etymology and reached the famous conclusion that "each word has its own history." When this conclusion is combined with doubt about the existence of dialects, it leads directly to doubt about the existences of 'languages' too (*see* **Integrational Linguistics and Semiology**).

Linguistic Anthropology

In America during the same period, anthropologists provided a significant input to language studies, in particular under the auspices of the Bureau of American Ethnology. Attention focused upon the description and classification of native Amerindian (i.e., non-Indo-European) languages – a source of material unavailable in Europe. The study of these languages was also in part motivated by missionary activities and Bible translation – enterprises that played no comparable role in Europe. As early as 1838, the French scholar P. E. Duponceau (1760–1844) argued that all Amerindian languages had a basic grammatical structure unknown in the Indo-European family, and popularized the term 'polysynthetic' to identify it. In 19th-century language typologies, polysynthetic languages were often distinguished from 'synthetic' and 'analytic' languages. The characteristic of polysynthetic languages was said to be a tendency to prefer long, complex words that 'incorporate' a variety of grammatical distinctions. Thus, for example, in Eskimo a single word expresses the idea that might be rendered in English by the sentence "Do you think he really intends to go to look after it?" (The term 'incorporating' is also used to describe this type of structure.)

One result of this American anthropological tradition of language study was the publication of the *Handbook of American Indian languages* (1911–1922). The team responsible for this was led by F. Boas (1858–1942), a German scholar who had emigrated to the United States. The *Handbook* comprised brief descriptive accounts of the phonetics, grammar, and vocabulary of a range of Amerindian languages. Boas himself rejected the view that all Amerindian languages were 'polysynthetic.' His most important theoretical contribution to general linguistics is sometimes said to be his observation that Europeans were prone to misdescribe the sounds of Amerindian languages, because they could not avoid hearing them through the grid imposed by the phonetics of the European languages they themselves spoke. This idea has obvious links to Saussure's insistence that every language is structurally unique, although Boas arrived at this notion independently of Saussure.

In Europe, the chief influence of anthropology on the development of linguistics is to be seen in the work of the Polish anthropologist B. K. Malinowski (1884–1942), whose fieldwork in the Trobriand Islands inspired his view of language. Malinowski popularized the notion of "phatic communion," which, in contrast to the traditional idea that language existed to communicate 'thoughts,' emphasized the role of language as a mode of action for establishing social bonds.

Malinowski's ideas were taken up by J. R. Firth (1890–1960), professor of general linguistics at London University, whose ideas were in turn developed by 'neo-Firthians,' such as M. A. K. Halliday (b. 1925). Firth's 'polysystemic' linguistics emphasized the need for linguists to set up different 'systems' in order to describe relations between linguistic units at different 'levels.' Firth viewed linguistics as language "turned back upon itself." He is sometimes regarded as the archetypal 'hocus-pocus' linguist, for whom linguistics is a verbal game played in accordance with metalinguistic rules devised by the linguist (as distinct from 'God's-truth' linguists, who view their task as being to discover some external linguistic reality that exists independently of their inquiries).

Linguistic Relativity

Another line of thinking in which Saussurean ideas link up with those emanating from the American anthropological tradition of language study concerns the theory that came to be known as 'linguistic relativity' or 'linguistic relativism.' It is also known as the 'Sapir-Whorf hypothesis,' of which there are various versions.

The term *relativity* is often taken as alluding to the work of A. Einstein (1879–1955) in physics. In one sense, this is not misguided, inasmuch as Einsteinian relativity emphasized the dependence of 'facts' on the viewpoint of the observer. The Sapir-Whorf hypothesis does likewise. Einstein himself, however, was far from being a linguistic relativist. Another figure often invoked in connection with the Sapir-Whorf hypothesis is the German polymath W. von Humboldt (1767–1835), whose ideas are seen as anticipating the hypothesis, in that he associated each national language with a distinctive way of viewing the world.

E. Sapir (1884–1939) was a student of Boas's and published a study of Takelma in the *Handbook of American Indian languages*. B. L. Whorf (1897–1941) worked for the Hartford Fire Insurance Company and became a student of Sapir's at Yale. In his insurance work, Whorf was struck by the fact that accidents were often caused by the way things and situations were described. (For example, an oil drum described as 'empty' had actually been full of highly dangerous vapor.) In its most general version, the Sapir-Whorf hypothesis claims that the language we speak provides a linguistic lens through which we view the world. It follows from this that speakers of different languages see the world – and interpret their own experience of it – in different, incommensurable ways.

This is probably the most revolutionary idea to emerge from modern linguistics – revolutionary in the sense that it overturns the assumptions underlying the development of language studies throughout the Western tradition (*see* **Western Linguistic Thought Before 1800**). It also has far-reaching implications for linguistic epistemology. These implications tend to be ignored in mainstream linguistics, because they subvert the whole basis of establishing linguistics as a 'science.' Insofar as mainstream linguistics has an answer to the problems raised by the Sapir-Whorf hypothesis, it lies in mounting a rival hypothesis claiming that there exists at some 'deep' level in human psychology a universal grammar common to all languages (Chomsky, 1986). It is difficult to see how this conflict of views could ever be resolved by the adduction of empirical linguistic 'evidence.' The debate is ultimately sterile. Both the Sapir-Whorf hypothesis and the universal grammar hypothesis open up routes that lead linguistics nowhere. That has not prevented partisans on both sides from devoting much time and effort to driving their own hypothesis further into no-man's-land.

Behaviorism

In America Saussure's work remained for some time without noticeable influence, in part because

Saussurean linguistics eventually found itself under attack from psychologists, and in particular from linguists who had adopted the psychological doctrines of behaviorism. The leading linguistic exponent of these views between World War I and World War II was L. Bloomfield (1887–1949).

Although Bloomfield had himself studied Amerindian languages, and early in his career had been attracted to the psychological theories of Wundt, he was 'converted' to behaviorism at Ohio State University by A. P. Weiss (1879–1931). Bloomfield said of Weiss that he "was not a student of language, but he was probably the first man to see its significance" – an astonishing statement and an astonishing tribute. From the time of his acquaintance with Weiss, Bloomfield became increasingly and implacably opposed to 'mentalism' in linguistics. This entailed a rejection of Saussurean linguistics, given Saussure's view of the linguistic sign as a purely psychological unit existing in the human mind as a pairing of form (*signifiant*) with meaning (*signifié*). Somewhat more equivocal was Bloomfield's attitude to Boas's notion that linguistic structure lay below the level of human consciousness. Boas's introductory essay to the *Handbook of American Indian languages* had contained a concluding section on the "Unconscious Character of Linguistic Phenomena."

In accordance with behaviorist precepts, Bloomfield set out to banish from 'scientific' linguistics all appeal to unobservables. This meant no great loss as far as sound was concerned, since speech was audible and recordable. The problem lay with meaning. If meaning were in the mind of the speaker, they were unobservable and unrecordable. Accordingly, Bloomfield had to fall back on the ancient reocentrism of the Western tradition and declare that, for instance, the meaning of the word *salt* is nothing other than the physical substance salt. Thus meaning was rescued and brought within the domain of linguistic observation. The question then arose, however, 'What is salt?' Recognizing that linguists could not be expected to be omniscient, Bloomfield's answer was that meanings could not be stated precisely except in domains where science had 'determined' the nature of the thing in question. Thus science had determined that salt in the physical world is sodium chloride. So the semantics of words for substances like salt posed no problem. But science had not yet determined what items in the 'real world,' if any, corresponded to such words as *love* and *hate*. There, according to Bloomfield, semantics would have to wait until scientists had got round to investigating such matters. So semantics was "the weak point in language-study" and was likely to remain so "until human knowledge advances very far beyond its present state" (Bloomfield, 1933).

The effect of this behaviorist doctrine was to skew linguistic inquiry in the direction of phonetics, since so much of semantics lay in the limbo of the unknown or unknowable.

Distributionalism

Some of Bloomfield's followers drew the conclusion that a 'science' of language was possible only if it ignored the analysis of meanings and concentrated solely on the analysis of linguistic forms. The attempt to theorize this nonsemantic approach to linguistic structure came to be regarded as characteristic of American (as opposed to Saussurean) 'structuralism.' Saussure would have regarded any such development as retrograde, rather than as an advance in the science of linguistics. In effect, it was a reversion to Greek atomism (*see* **Western Linguistic Thought Before 1800**), although few if any of the American linguists involved were sufficiently well educated in the Classics to see the connection. Be that as it may, the outcome was a profound and misleading difference between the terms *structural* and *structuralism* as used in linguistics on either side of the Atlantic. Thus, for example, *Structural linguistics* (Harris, 1951) was the title of a well-known American textbook that (deliberately) excluded any consideration of linguistic meaning.

For the distributionalists, linguistic description consisted in identifying phonological units and defining all higher-order complexes by reference to the distribution of the basic units already defined. They assumed this could be done 'formally' – that is, without appealing at any stage to the supposed meaning of the items under investigation. The doyen of distributional linguistics was Z. S. Harris (1909–1992), whose critics argued that distributional analysis, contrary to its proclaimed principles, tacitly took meaning into consideration at every turn. In other words – so the argument went – the linguist's task of determining whether two sounds were the same or different was impossible without information about whether the native speaker treated them as articulating a minimal semantic distinction.

Distributionalism was 'formalist' in another sense. It reduced the definition of linguistic units to the sum total of analytic procedures involved in identifying them. Adoption of a different set of procedures might produce a different set of units. This in turn had implications for the status of linguistics as a 'science.' (The assumption was that 'scientific' knowledge should not be at the mercy of the methodological preferences of the scientist.)

However, at a deeper level, distributionalism also connected with the revolution in the epistemology of

science associated with Einsteinian relativity. In particular, the theory of operationalism in physics, as advanced by P. W. Bridgman (1882–1962), could be seen as a counterpart to Harris's distributionalism in linguistics. For Bridgman, all physical concepts were defined ultimately by reference to the techniques of measurement deployed in any scientific observation.

Generativism

One of Harris's students, A. N. Chomsky (b. 1929), proposed a novel approach to linguistic analysis by borrowing an idea from mathematical logic. It is possible to define a formal logistic system by setting out a string of 'rules' or algorithms that constrain transformations from one sequence of symbols to another. Chomsky saw that this procedure could be applied *in extenso* to the description of languages like English, if it were possible to propose a nucleus of symbols and transformational rules that would eventually 'generate' all and only the sentences of English. Many years of work were devoted to this Herculean quasi-mathematical labor, which never came to completion, either for English or for any other language.

Chomsky attacked behavioristic approaches to language, in particular the explanations offered by the experimental psychologist B. F. Skinner (1904–1990) concerning language acquisition. In the view of Chomsky and other generativists, language users were to be credited with reliable linguistic 'intuitions' as to the grammaticality or otherwise of expressions in their language. How these intuitions were to be distinguished from the products of teaching, rationalization, or personal preference was never clearly explained.

Although Chomsky at one point saw his project as a formalization of the Saussurean distinction between *langue* (= Chomskyan 'competence') and *parole* (= Chomskyan 'performance'), that would have amused Saussure, for whom the naïve notion that a language could be reduced to a set of sentences was not even a starter. Generativism has been criticized by sociolinguists (see the next section) for ignoring linguistic variation and verbal interactions in 'real-world' contexts. In particular, Chomsky's frequent appeal to an "ideal speaker-listener" is seen as an unacceptable evasion of linguistic issues that should be addressed empirically.

Sociolinguistics and Pragmatics

During the 20th century, there had also emerged in linguistics the simple but powerful idea that languages could be studied independently of any theory about "the language system." So it did not matter too much what theorists like Saussure or Bloomfield or Chomsky said. Whatever they said, linguistic behavior was still available for description as a social phenomenon. This is the basic idea behind what came to be called 'sociolinguistics.'

It derives from traditional dialectology, but it now incorporates the notion that linguistic variation has other than geographical parameters. In particular, it embraces the notion that there are discernible patterns of linguistic variation that depend on age, sex, education, social status, social occasion, professional occupation, and other factors. All these may intersect in numerous ways. It is the task of the sociolinguist to document, disentangle, and explicate these complex patterns.

A sociolinguistic approach leads on naturally to 'pragmatics' or 'pragmalinguistics.' This has now become a catch-all category embracing virtually all forms of linguistic variation or distinguishing characteristics that can be detected when language is used in a particular type of activity or communication situation.

The main objection that has been leveled against linguistic research of this kind is that it falls inevitably under the aegis or influence of sociology, and thus is led to adopt techniques of investigation and methods of classification that are approved in that discipline (in particular the adoption of certain social classifications and statistical assessments that may perhaps be inappropriate or misleading for linguistic purposes).

Speech-Act Theory

Pursuing a sociolinguistic approach to its logical conclusion, one is led to ask not "What are the basic sound units of a language?", nor "What are the basic grammatical units and constructions?", but "What are the basic speech acts by which one human being communicates with another?" Curiously, this question had been more or less neglected in modern linguistics until it was raised in the neighboring discipline of philosophy. That it was raised at all is due largely to the Oxford philosopher J. L. Austin (1911–1960), whose work in turn owes much to the climate of inquiry created in philosophy of language and philosophy of mathematics by G. Frege (1848–1925), B. A. W. Russell (1872–1970), G. E. Moore (1873–1958), and L. Wittgenstein (1889–1951).

The title of Austin's brief but highly influential book *How to do things with words* (1962) strongly suggests the pragmatic orientation of his thought. He

realized that stating a fact (recognized in traditional grammar as the province of the indicative mood) was only one of many verbal activities it was possible to engage in, even though it was the activity that traditional philosophy valued and paid attention to above all others. This led Austin to ask what other types of act were available to the speaker or writer. He point-

In the study of animal behavior, much attention was paid in the second half of the 20th century to the possibility of teaching linguistic skills to other primates, particularly those genetically close to *Homo sapiens*. It was generally accepted that apes were, for physiological reasons, unlikely to be able to produce articulated speech. But there seemed no

See also: Behaviorism: Varieties; Firth, John Rupert (1890–1960); Integrational Linguistics and Semiology; Jones, William, Sir (1746–1794); Müller, Friedrich Max (1823–1900); Neogrammarians; Pragmatics: Overview; Speech Acts; Structuralism; Structuralist Phonology: Prague School; Western Linguistic Thought Before 1800.

Bibliography

Andresen J T (1990). *Linguistics in America 1769–1924: a critical history.* London: Routledge.

Ardener E (ed.) (1971). *Social anthropology and language.* London: Tavistock.

Asher R E (ed.) (1994). *The encyclopedia of language and linguistics.* Oxford: Pergamon.

Austin J L (1962). *How to do things with words.* Oxford: Clarendon.

Bloomfield L (1933). *Language.* New York: Holt.

Boas F (ed.) (1911–1922). *Handbook of American Indian languages.* Washington, D. C.: Government Printing Office.

Botha R (2003). *Unravelling the evolution of language.* Oxford: Elsevier.

Bréal M (1897). *Essai de sémantique.* Paris: Hachette.

Chomsky A N (1986). *Knowledge of language.* New York: Praeger.

Davis P W (1973). *Modern theories of language.* Englewood Cliffs: Prentice-Hall.

Fries C C (1966). *Linguistics: the study of language.* New York: Holt, Rinehart & Winston.

Harris R (ed.) (1988). *Linguistic thought in England 1914–1945.* London: Duckworth.

Harris R (ed.) (1995). *Language and linguistics* (4 vols). London: Routledge/Thoemmes.

Harris R (ed.) (1997). *Origins of American linguistics 1643–1914* (13 vols). London: Routledge/Thoemmes.

Harris R (2003). *Saussure and his interpreters* (2nd edn.). Edinburgh: Edinburgh University Press.

Harris Z S (1951). *Structural linguistics.* Chicago: University of Chicago Press.

Jespersen O (1922). *Language: its nature, development and origin.* London: Allen & Unwin.

Joseph J E, Love N & Taylor T J (2001). *Landmarks in linguistic thought II: the Western tradition in the twentieth century.* London: Routledge.

Lepschy G C (1970). *A survey of structural linguistics.* London: Faber & Faber.

Mohrmann C, Sommerfelt A & Whatmough J (eds.) (1961). *Trends in European and American linguistics 1930–1960.* Utrecht: Spectrum.

Robins R H (1994). 'Jones, Sir William (1746–94).' In Asher R E (ed.) *The encyclopedia of language and linguistics.* Oxford: Pergamon. 1820–1821.

Saussure F de (1916). *Cours de linguistique générale.* Paris: Payot.

Savage-Rumbaugh S, Shanker S G & Taylor T J (1998). *Apes, language and the human mind.* New York: Oxford University Press.

Vachek J (1966). *The linguistic school of Prague: an introduction to its theory and practice.* Bloomington: Indiana University Press.

Modes of Participation and Democratization in the Internet

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It has almost become a cliché to say that new communication technologies are having enormous effects on political discourse. Examples of these effects abound, from the use of the Internet by democracy activists in China to its use in political campaigns in the United States. Discussion of the political impact of electronic communication and its implications intensified after September 11, 2001, with governments voicing fears that the Internet had become of tool for terrorist elements, and some citizens voicing fears that new regulations allowing the government to curtail freedom and privacy in cyberspace violated what they saw as the 'democratic ethos' of the medium.

The debate about the relationship between computer mediated communication and democracy has always been characterized by ambivalence and contradiction. Howard Rheingold, one of the earliest analysts of online community building, noted in the early 1990s that virtual communities could either assist citizens in revitalizing democracy, or become a substitute for democracy, luring users into attractively packaged forms of superficial discourse.

Linguists, discourse analysts, and scholars in communications studies have contributed to this debate in a number a ways, focusing on a wide range of issues, including code choice and the domination of English in electronic discourse, the norms of interaction that develop in online discussions, the ways the Internet has affected global and local flows of information and, in some ways, changed the nature of information itself, the ways the medium has contributed to the imagination of new communities and news kinds of social identities, especially for marginalized groups, and the new kinds of 'literacies' necessary for citizens in the electronic age. Scholars working in these areas have tended to eschew technological determinism, putting