

nahs, Gk *nuktós* (gen.) "night." It became clear to a number of linguists in the 1830s that the shift did not take place in consonant clusters after Germanic fricatives. The observation not only solved one set of exceptions; it alerted linguists to examine sounds in context, not merely individual entities.

The second set of exceptions to be solved concerned the aspirates. Here Hermann Grassmann (1809-77) pointed out that the exception was in Sanskrit and Greek, not Germanic (1862). If the exception was in Germanic, Goth. *bindan* should have had as cognates Skt **bhandh-* and Gk **phenh-*; instead, we find Skt *badh-nâti* "binds" and Gk *pentheros* "father-in-law." Grassmann's law, which states that the first of two aspirates in successive syllables, or at the beginning and end of a syllable, loses its aspiration in Sanskrit and Greek, clarified the second exception.

Grassmann's article also demonstrated that Sanskrit should not be taken as equivalent to Proto-Indo-European, but that it had undergone major changes like the other Indo-European dialects. Grassmann's observation had the further consequence that now linguists examined entire words, not merely individual sounds or those contiguous to them.

The third set of exceptions concerned words like Goth. *fadar* which had a voiced rather than a voiceless fricative corresponding to *t* in the other dialects, such as Gk *patér*. Grimm had listed the Greek word, but paid no attention to the accent. Karl Verner (1846-96) in 1875 published an article in which he demonstrated that if Indo-European voiceless stops in voiced surroundings were not preceded by the accent, they became voiced fricatives.

Verner's article had a tremendous effect, possibly greater than any other that has been published in the field. As probably its most significant effect, it gave linguists confidence that, if they took all data into consideration, they could solve all problems.

As another effect, it alerted linguists to the importance of examining accent and other suprasegmental phenomena. After 1875 many articles were published in which complex sound changes were explained as the result of accent.

As a further effect, it led scholars to examine the metrical principles of older verse. A huge number of works now appeared on Germanic verse form, and on metrical conventions in the various early dialects, as well as in other languages. The brilliant phonetician, Eduard Sievers (1850-1932), for example, also concerned himself with verse form in ancient Hebrew.

After a half century of assembling and describing the data, the stage was now set for explaining linguistic phenomena. A number of brilliant young linguists in Leipzig formed a group that set out to deal with language in accordance with specific principles. Taunted by their elders as neogrammarians, they adopted the name. Subsequent linguistic study was largely shaped by them.

2.5 THE NEOGRAMMARIANS

Filled with confidence after the impressive articles of Grassmann and Verner, linguists who had been attracted to Leipzig for study under the distinguished philologist, Georg Curtius (1820-85), formulated principles that provided the guidelines for clarifying the Indo-European family, and thereupon other language families. Karl Brugmann (1849-1919) wrote the essay that set their course. August Leskien (1840-1916) did notable work especially in Slavic, while insisting even more strongly than Brugmann on the principles. Berthold Delbrück (1842-1922) was the syntactician in the group. Hermann Osthoff (1847-1909) collaborated closely with Brugmann, producing many impressive monographs, such as his on the Indo-European perfect. We will deal largely with Brugmann's essay, often called the neogrammarian manifesto, since it is one of the few statements in our field that should be known to every linguist. But first we may recall briefly the situation of the time.

Bopp's huge grammar had been superseded by a shorter, but more principled handbook by August Schleicher (1821-68). In his *Compendium* (1871) Schleicher attempted to apply the procedures of the natural sciences. In this effort he was strongly influenced by the ideas on evolution. These may have led him to the innovation of reconstructing forms for Proto-Indo-European. Although he carried out important fieldwork on Lithuanian, Brugmann and his colleagues thought that too much attention was being given at the time to dead languages. In his words, "languages were indeed investigated most eagerly, but the human being who speaks, much too little" (Lehmann 1967: 198). Whether or not this statement was also directed against Schleicher, some linguists consider him a direct precursor of the neogrammarians.

In his essay Brugmann sees language as having a twofold basis, psychological and physical. He criticized his predecessors for having too little regard for the psychological basis of speech, because only through such knowledge could one understand sound change. A psycholinguistic view of language like his is often credited to later movements. But we will see that Trubetzkoy in his fundamental work published sixty years after the manifesto made the same point as did Brugmann.

Moreover, in Brugmann's view the living languages of today need to be studied if one wished to deal with those of the past. As one of his important points he required the "comparative linguist" to emerge from "the hypotheses-beclouded atmosphere of the workshop . . . and to step into the clear air of tangible reality and of the present" (Lehmann 1967: 202), a recommendation that is not without pertinence for later times.

Holding such a position he stated the "two most important principles of the neogrammarian movement: first, every sound change takes place according to laws that admit no exception. Second, form association, that

is, the creation of new forms by analogy, plays a very important role in the life of language" (Lehmann 1967: 204).

These principles have often been stated differently, as that sound change takes place without exception. But since Brugmann insisted on the psychological basis of change, the "laws" for him control the inner form of language. Morphological and syntactic interrelationships can modify their working. He illustrated the interplay between the two principles briefly, in the short essay, insisting especially that analogy operated in the ancient languages as it does in those of today. The principles have at times been exaggerated; as applied by Brugmann, they led to outstanding monographs that are still important to know, and to his fundamental Indo-European grammar.

The grammar was undertaken in collaboration with Delbrück, who prepared the syntax, while Brugmann did the phonology and morphology (1886-1900). Delbrück had previously published a number of monographs on Sanskrit and Greek syntax, showing that these languages and accordingly Proto-Indo-European were verb final. Besides stating that fact unambiguously, he pointed out other OV characteristics, such as the use of postpositions rather than prepositions. His presentation differs from that of today, but is none the less clear; even so, some current scholars fail to accept his conclusions on the OV structure of the proto-language that were based on thorough knowledge of the early texts, and later verified by Hittite. Delbrück's syntax, published in three volumes from 1893 to 1900, is still a fundamental handbook.

The two authors came to disagree on the distribution of materials between morphology and syntax, so that Brugmann alone published the second edition (1897-1916). It is highly important to know the views underlying the handbook. In his preface Brugmann calls his approach "systematic" rather than historical; he states that the time is not yet ready for a historical presentation of Proto-Indo-European. Later scholars have often failed to read his handbook in accordance with its approach. In a sense the work is descriptive; it includes copious lists of the forms that occur. Since Brugmann was meticulous with his facts, the work has not been superseded and will not be, even though later discoveries, as of the Anatolian languages, have expanded our information.

In accordance with his systematic presentation, a large number of sounds are reconstructed for Proto-Indo-European, rather than the phonemic system we posit. Further discussion of his procedures would be important for Indo-Europeanists. Yet what is essential for our purposes here is awareness of his systematic position, and attention to his important monographs which unfortunately have not been made available in English translation.

While the linguists in Leipzig were clarifying many problems in Indo-European linguistics, Hermann Paul (1846-1921) in Munich produced the theoretical handbook of the period. His "Principles of historical

linguistics" went through five editions from 1880 to the last in 1920, which has been reissued. Paul also laid great stress on psychology. By erroneous interpretation of its title, his "Principles" have often been assumed to be directed solely to diachronic study; rather, the term "historical" sciences corresponds to our terms "humanities, social and behavioral" sciences as opposed to the "ahistorical physical sciences." We have noted that scientists today use similar terminology in classifying the physical and chemical sciences as experimental, but geology, evolutionary biology and astronomy as historical. Linguistics clearly belongs with them, since language is constantly changing. Yet, with its attention to older languages, Paul's book may have concentrated too heavily on change. When the erstwhile student at Leipzig, Leonard Bloomfield (1887-1949), set out to write his book on language, he considered it a supplement to Paul's, with greater attention to descriptive linguistics.

The neogrammarians were immensely productive. They founded journals. They produced handbooks, as on Old English by Eduard Sievers (1850-1932). These follow the pattern set by the handbooks on Gothic by Wilhelm Braune (1850-1926); many of the handbooks have been re-edited, none as often as Braune's *Gothic Grammar*, now in its nineteenth edition prepared by Ernst A. Ebbinghaus. They solved many problems, including the bases of Germanic alliterative verse. And they summed up their findings in "Grundrisse," not only Brugmann's, but also Paul's for Germanic, Bühler's for Indic, Geiger and Kuhn's for Avestan, Brockelmann's large comparative grammar for Semitic. These provide encyclopedic treatments of many topics besides linguistics. They are still worth consulting, especially those that have been brought up to date. Whether they have or not, the Grundrisse and large comparative grammars remain highly valuable handbooks.

2.6 FERDINAND DE SAUSSURE

If anyone in linguistics merits a separate section in this chapter, it is Ferdinand de Saussure (1857-1913). Born in a distinguished Swiss family, which produced outstanding members in different fields through numerous generations, Ferdinand de Saussure in 1876 entered the University of Leipzig, which was then the center of linguistic studies. There he published a distinguished monograph: *Mémoire sur le système primitif des voyelles dans les langues indo-européennes*. It appeared in December 1878, with the date 1879, causing bibliographical problems ever since. In the *Mémoire* Saussure treated roots algebraically, positing as canonical form for Proto-Indo-European CeC. The roots that did not fit had by his hypothesis lost elements, for example *ag-* "lead," (*s*)*lā-* "stand", *dō-* "give." The lost elements he called *sonantes coefficients*. The *Mémoire* was recognized as brilliant, but its most brilliant conclusion was not accepted until Kurylowicz in 1927 equated sounds transcribed with *h* in Hittite with

Saussure's *sonantes coefficients*. Saussure's hypothesis is one of the most remarkable in our field, a stunning application of the method of internal reconstruction.

When the *Mémoire* was published, Saussure was studying in Berlin. He then returned to Leipzig to take his doctor's degree with a dissertation on the use of the genitive absolute in Sanskrit. During the final examination he was reputedly asked whether he was a relative of the famous Saussure.

After taking his degree, he accepted a position at the *Ecole des Hautes Etudes* in Paris, 1881, where he stayed until he accepted a professorship at Geneva in 1891. His stay in Paris led to its replacing Leipzig as center of linguistic studies, largely through his impressive student, Antoine Meillet (1866-1936).

Saussure published relatively little. In 1907-11 he gave three series of lectures on general linguistics. Wilhelm Streitberg expressed in his obituary the hope that they would be published. Ill health suspended the lectures in 1912, and on 22 February in 1913 he died.

The lectures were indeed published as the *Cours de linguistique générale* (1916), and should be mastered by every student of linguistics. The publication is not without problems, for his students, Charles Bally and Sechehaye, had to merge the lectures and provide some kind of continuity. Subsequently a variorum edition has been published, putting Saussure on some kind of plane with Shakespeare in critical study. Through the detailed scholarship given the *Cours* it has been found that the often-cited conclusion of the book is due to his editors.

As virtually every student knows, Saussure viewed the underlying structure of language as an abstract social system. Using three French words, he refers to language in general as *langage*, to the underlying structure as *langue* and to spoken language as *parole*. In this way of looking at language he shifted away from the psychological emphasis of the neogrammarians.

The section on historical linguistics may be the weakest in the book. Saussure sited it in *parole*. It is indeed true that when pronunciations change, as for American English *bitter*, activity takes place in the speech. But it is now generally held that the real change is in the system, that is in the *langue*.

The *Cours* is credited with implanting structuralism in linguistics. Actually, it simply reaffirmed the structural position established by Schlegel and Cuvier. Its effect also is broader, extending to literary criticism and other humanistic as well as scientific pursuits. Oddly, the *Cours* was sketchily reviewed in the United States, by Bloomfield (1923). In partial justification for the lacklustre reception, the book was not brought into the USA for some years, thanks to the stupid blockade of publications after the First World War. When the *Cours* became available, the basic ideas were already well known. Numerous subsequent commentaries have made up for the original reception; of these, works by Roy Harris are to be especially commended.

2.7 A SOCIOLINGUISTIC APPROACH IN HISTORICAL LINGUISTICS

While the neogrammarians were concentrating on clarifying the Indo-European family, a great deal of fieldwork was being carried out. American linguists were studying the native languages of their continent, German linguists the languages of Africa and Russian linguists the languages of the Caucasus. Their findings had a great impact on linguistic theory. Close analysis of the phonological systems of Slavic languages led Jan N. Baudouin de Courtenay (1845-1929) and his student Mikolaj H. Kruszewski (1851-87) to the modern conception of the phoneme as a systematic element of language in contrast with the phonetic entities of speech.

Sociology was also developing. The French scholar, Durkheim, was especially influential. His effect on Meillet is clear in the lectures that Meillet gave to the newly established Institute for Comparative Research in Culture at Oslo in 1924. The institute itself, with its focus on work in the Caucasus, provides further evidence of the concern with the social background of language.

Meillet's compact Oslo lectures are another work that every linguist should know. Their tenor may be illustrated by a sentence in the introduction: "a language cannot be understood if we do not have an idea of the conditions under which the people who use it live" (1925 (1967): 10). We may recall that Brugmann made a similar statement in his manifesto; but his emphasis was on the individual, in keeping with the concentration at the time on psychology. Meillet was very specific in his requirements that linguists deal with a language with reference to the society of its speakers. Although a student of Saussure's, he stated: "what interests the linguist is not the norms but the way in which the language is used" (*ibid.*: 133). After pointing out a few different situations, and noting that "the French of the grammars and dictionaries is known," he goes on to say that French "is only a set of rules. What is important for the linguist is to know how the people who speak French behave in relation to the rules" (*ibid.*: 134). It would be difficult to repudiate more directly the concentration on the inner form of language to the exclusion of speech.

Meillet was a great synthesizer, and also a skillful organizer. He published handbooks on virtually all the Indo-European languages, as well as his authoritative *Introduction à l'étude comparative des langues indo-européennes*; the eighth edition was produced by his outstanding student, Emile Benveniste, in 1937, the year after his death. In using his works, one notes that he preferred to avoid reconstruction. During his well-attended lectures he is said never to have pronounced a reconstructed form. The lectures attracted scholars from various countries. All of the outstanding linguistic group at Oslo, Marstrand, Sommerfelt, Morgenstierne, Vogt, Bergstrøm, Stang and Bergsland went to Paris to study with him. When