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Historiography of Linguistics

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CURRENT TRENDS IN LINGUISTICS

VOLUME 13



EUROPEAN STRUCTURALISM: EARLY BEGINNINGS

E. F. K. KOERNER

IN MEMORY OF MY FATHER
Dr. jur. Johann Jakob Friedrich Koerner
(November 20, 1900–June 14, 1972)

It used to be assumed that structural linguistics, as exemplified in the work of the Prague and Copenhagen circles in Europe and Bloomfield and his immediate successors in the United States, represented a definite break with the immediate past, in particular with the views associated with the great historical linguists of the nineteenth century. The latter were depicted as interested in such problems as linguistic change, reconstruction, genetic relationships, and so forth; their cast of mind was primarily archeological. Interest in synchronic description and the theoretical foundations of linguistics did not, so the story went, come into the forefront of attention until the advent of structuralism.

W. Keith Percival (1969:416)

0. PREFATORY REMARKS¹

The present article should be understood as an essay, though at times a critical if not polemic one; for two reasons: firstly, there exists until today no epistemological basis, no workable theoretical guide, for the scholar engaged in writing the history of linguistics which would justify the appearance of the term *historiography* in the title of this volume. Secondly, it has become clear to the serious student of 19th-century linguistic thought that its history needs to be rewritten completely, both in content and form, and much work has still to be done to realize the desired goal. If I seem on occasion overly critical of the work of my predecessors, it is because I share Lessing's conviction that a new approach to a given subject ought to begin with a dissection of previous views. On the other hand, I am confident that I will be able to show, though

¹ This essay was written during my sojourn as a post-doctoral fellow in the Department of Linguistics and the Linguistic Research Center of The University of Texas at Austin in Spring and early Summer 1972. I wish to express my gratitude to Professor Winfred P. Lehmann, Chairman and Director of these institutes, for both his continuous interest in my work and its financial support. I also wish to thank Mrs. Kay D. Lee for her excellent typing of the final draft of my paper. All views expressed herein, whether contributing to new insights into the subject matter or misleading, are however all my own responsibility.

only in an incomplete manner, which way the historian of linguistic science must take in order to create a historiography of linguistics that can lay claim to a rigor comparable to the study of language itself. That previous accounts of the 19th century have been quite inadequate, biased and misleading, will be demonstrated in this essay on a number of occasions; recent publications, e.g. Hoenigswald 1963 and 1968, Maher 1966, and Percival 1969, have demonstrated the necessity of a more accurate presentation of the development of linguistic ideas without, however, suggesting new ways according to which significant events in the history of linguistics should be assessed. But refinement of traditional methods and correction of erroneous assumptions are not sufficient; a new 'Operationsart' as Schuchardt termed it three generations ago must be developed to prevent continuation of the production of chronicles instead of histories (cf. Collingwood 1964:202) and the perpetuation of the many fables convenues so characteristic of the so-called histories of linguistics available to the present day. It is true that there have been a number of serious studies devoted to the beginning of the New Philology sketching out the intellectual background of Bopp (see Verburg 1950) or Rask (see Diderichsen 1960), for instance, but none of them has provided a model for future research — though Aarsleff (1967:vi) pointed to the latter as 'fundamental to any understanding of the history of language study, whether constructed in the narrower philological sense or seen in the larger context of intellectual history'. Incidentally, these studies devoted to a given stage in the history of linguistics exhibit, almost by necessity, a more detailed analysis of the background of the protagonist than those covering longer periods of time. But all of them, as far as I can see, remain within the traditional mould in the sense that they do not provide, or at least attempt to provide, a theoretical framework which may serve as a guide to others wishing to analyze particular aspects in the development of linguistic thought. H. Aarsleff's *Study of language in England, 1780–1860*, published in 1967, constitutes perhaps the most thorough account of a particular period written in this scholarly tradition. It is filled with valuable bio-bibliographical information, frequent rectifications of erroneous claims made by previous historians and stimulating ideas. In H. Arens' *Problemgeschichte* (see Arens 1969) we find at times a glimpse of the extra-linguistic atmosphere of a given epoch but there is hardly any visible effort to relate it to the linguistic ideas of the time under analysis. R. H. Robins, in his *Short history of linguistics*, shows an awareness of the difficulties involved in giving an accurate picture of earlier periods and points to the necessity of describing linguistic ideas in the light of the manner in which people conceived science (cf. Robins 1967:1–7); the reader of his book, however, will look in vain for such statements when particular theories are presented. A laudable exception in this respect is the *wissenschaftshistorische* part of the *Principles of phonometrics* of E. and K. Zwirner, "Observations on the history of phonetics" (Zwirner & Zwirner 1970:8–81), though the reference to non-linguistic work has been motivated by the authors' effort to substantiate the scientific validity of their particular approach to phonological analysis.

More recently, G. L. Bursill-Hall ventured beyond the scope of the traditional way

of presenting the history of linguistics, suggesting that we might be well advised to look outside our own field for a usable guide as long as a theoretical framework for the historian of linguistic science has not been established to any workable extent (see Bursill-Hall 1970:143). Indeed, he suggests that the history of science might well have something to offer, though he does not think that this would be the only possible approach to the problem, pointing to the usefulness of linking linguistic ideas to the context of the history of ideas (*ibid.*, 145). It is only surprising then to find in A. O. Lovejoy's programmatic article, 'Historiography of ideas', that the history of linguistics is not mentioned in a list of twelve subjects which, according to him, touch upon the history of ideas, except for a curious reference to 'some parts of the history of language, especially semantics' (cf. Lovejoy 1960:1f.). Although I believe that the history of linguistics represents the most conspicuous aspect of the history of ideas in so far as linguistic theories reflect, to a large extent, the intellectual atmosphere of their time, I think that the work done in the history of science should not be ignored, especially since linguistic ideas have frequently evolved under the influence of what was then understood by 'science'. Moreover, the history of science has become an established field of scholarly activity in recent years and may in fact offer some useful insights to the historian of linguistic thought.

Modern histories of linguistics reveal that their authors regard the development of linguistic ideas from the strictly contemporary viewpoint and its history as a process-by-accumulation; but this is a fallacy, as Robins observes, since 'the aims of a science vary in the course of its history, and the search for objective standards by which to judge the purposes of different periods is apt to be an elusive one' (1967:3). It is indeed conceivable that the Modistae of the late medieval period or the grammarians of Port Royal considered themselves just as linguistically oriented and as rigorously scientific as the most ardent protagonist of transformational grammar. What is needed is an evaluation of a given linguistic concept or theory in the light of its own time, its interests and goals, and of course a scholar who is familiar with the general intellectual currents and scientific achievements of the period under investigation. First-hand knowledge of the primary sources, both linguistic and extra-linguistic, i.e. a firm grasp of the *res gestae* of the time under study, constitutes the *conditio sine qua non* for the historian of linguistic thought. Two concepts, I believe, should be the guide for those working in the history of linguistics: 'climate of opinion' and 'paradigm'.

Whitehead revived the 17th-century notion of climate of opinion in his 1925 lectures on the development of science in the Western world (cf. Whitehead 1967:3) and a few years later Carl Becker put it to special use in his study of 18th-century philosophy. There Becker explained the validity of describing ideas within their general intellectual setting by the following example:

Whether arguments command assent or not depends less upon the logic that conveys them than upon the climate of opinion in which they are sustained. What renders Dante's argument or St. Thomas' definition meaningless to us is not bad logic or want of intelligence, but the medieval climate of opinion — those instinctively held preconceptions in the broad sense,

that *Weltanschauung* or world pattern — which imposed on Dante and St. Thomas a peculiar use of intelligence and a special type of logic. To understand why we cannot easily follow Dante or St. Thomas it is necessary to understand (as well as may be) the nature of the climate of opinion. (Becker 1932:5)

I think nothing needs to be added to this statement.² The complementary term to 'climate of opinion' seems to be more difficult to assess.

In recent years, Kuhn's concept of paradigm has become a popular notion in the philosophy of science as well as in other areas of scholarly concern (cf. Bailey 1971 and Dingwall 1971:12). Unfortunately, Kuhn employed the term in many different senses (cf. Kuhn 1970:10f., 17f., 23, 37, 43, 59f., etc.), and I even fail to understand the significant difference between the two kinds of paradigm on which Kuhn insisted in his reply to earlier criticisms,³ i.e. paradigms as 'disciplinary matrix' constituting 'the common possession of the practioners of a particular discipline' (Kuhn 1970:182) and paradigms as shared examples, namely theories and rules to which each member of a given discipline has been initiated in the course of his apprenticeship (see *ibid.*, 187ff.). Nothing in scientific activities will be the common possession of the men working in a given field unless they have previously been initiated to its methodology in a similar manner.

The concept of paradigm does not need to be completely rejected, however, for the present purpose, although it is not sufficient to recognize the social nature of the paradigm (cf. Kuhn 1970:184) or to insist on its interpretation as a general epistemological view point (cf. *ibid.*, 120) shared by scientists and scholars of a given period in a particular socio-political and cultural setting. In fact Becker's 'climate of opinion' can successfully be contrasted with Kuhn's 'paradigm' in order to avoid the ambiguity inherent in the latter concept. 'Climate of opinion' denotes the particular intellectual atmosphere prevailing in a given period of time whereas 'paradigm' will be used to characterize the particular achievement of an individual working in a branch of scientific activity who put forward a more or less comprehensive theory developed within the 'climate of opinion' but which leads to new insights in a given discipline and possibly also outside its immediate concern. When accordingly I speak of the 'Schleicherian' or 'Saussurean' paradigm in linguistics, I shall do so in order to identify important changes in linguistic theory and the ensuing methodological procedures of investigation and not to characterize general views and ideas of a given period. This distinction, I hope, will also help in determining whether a change of emphasis, a change of the 'point de vue' (CLG 23), represents at the same time a change in the current paradigm, a 'revolution' in the Kuhnian sense of the term. Bearing these considerations in mind, the twin characteristics attributed by Kuhn to those events which have created a particular mode of thought, e.g. Newton's *Principia*, Lavoisier's *Chemistry* or Darwin's *Origin of the species*, appear to me particularly fitting when

² Note that Kuhn (1970:94, 132, 148, 156f.) has made similar observations with regard to the fact that differences of 'world views' can seldom be settled by appeal to fact, logic or experiment.

³ See especially Margaret Masterman's somewhat exaggerated account (1970: especially 61–5).

referring to linguistic theories in those instances where a particular individual created a 'revolution' in linguistic thought which 'was sufficiently unprecedented to attract an enduring group of adherents away from competing modes of scientific activity' and which simultaneously was 'sufficiently open-ended to leave all sorts of problems for the redefined group of practitioners to resolve' (Kuhn 1970:10).

The historian of linguistics must be careful not to be misled by the theoretical argument but must also examine the way in which the theory is related or put to practice. A change in the philosophical *Überbau* of a prevailing paradigm does not necessarily entail a fundamental change of orientation for the practitioner or a real 'breakthrough' (cf. Hockett 1965:185ff.) but may either announce the initiation of a new paradigm or merely constitute a post-paradigm period (cf. Kuhn 1970:178) during whose 'mopping-up operations' (cf. *ibid.*, 24) a refinement of method or a modification of previous views has taken place. It is a common observation in the history of scientific revolutions that changes of paradigm are obscured, though perhaps not always intentionally, by members of a particular scientific credo. The historian of linguistics, for instance, can be easily misled if he relies uncritically on historical accounts by Delbrück (1880), Thomsen (1902) or Pedersen (1916 and 1924) in his own assessment of the neogrammarian doctrine and especially of those views attributed in these books to previous generations of linguists. Since two of these scholars in question have come from the neogrammarian mould, it is not surprising that they present the development of linguistics in favour of the Junggrammatiker, i.e. as if the mid-1870s constituted a definite break with previous periods in linguistics, whereas a number of publications from the 1880s onwards by opponents of the neogrammarian position (cf. the writings of Collitz, Pott, Schuchardt, Johannes Schmidt, and others) point to a definite indebtedness of Leskien, Osthoff and Brugmann and their associates to Schleicher's linguistic ideas.

The historian of linguistic science, confronted with these apparent opposite views, must acquaint himself thoroughly with the linguistic literature of the time in order to establish when and where a significant change of paradigm, a scientific revolution, has taken place which determined the subsequent path of 'normal science' (Kuhn) for two or more subsequent generations. That these changes must not be analyzed in isolation, i.e. with reference to linguistic debates and puzzle-solving operations, has been emphasized earlier in this introductory note; the essay below, if successful in its attempt to relate the emergence of a paradigm to the current climate of opinion, will show how findings outside linguistics proper have had an important impact on the development of linguistic thought, something which we have been able to witness in the present time when the Chomskyan paradigm has entered into its mopping-up phase.

1. INTRODUCTION: THE CONCEPT OF STRUCTURE IN LINGUISTICS

Structural linguistics is a 20th-century term; it was coined in Prague in 1928 or 1929,

probably by Roman Jakobson (cf. SW II, 713).⁴ This fact has to be borne in mind when talking about European structuralism in the 19th century. I had proposed to entitle the present essay '19th-century structuralists *avant la lettre*', but it was suspected by the Editor of the series that my suggestion 'seems in a jocular vein' and apparently not fitting a serious enterprise such as *Current trends in linguistics*. My concern however was to alert the reader to the fact that *structural linguistics* in the modern sense of the term can hardly be said to have existed in the past century and that it can only, if at all, be applied to ideas put forward by 19th-century linguists in a restricted sense. Even today, as consultation of the many glossaries of linguistic terms reveals (cf. Koerner 1972e), no unanimity can be found among linguists about the meaning of the term, though the majority of them agrees on naming Saussure's posthumous *Cours de linguistique générale* as the beginning of structural linguistics. From a terminological point of view this frequent affirmation must appear surprising since the index of the *Cours* does not include the term *structure* nor *organisme* but only *système* (CLG 325), although both terms appear in it on several occasions. I have found three occurrences of *structure* in the *Cours*; two of them (CLG 180 and 244) appear to have been added by the editors as Engler's critical edition suggests (cf. CLG(E) 296 and 425). Once the discussion is about the place which certain phonemes can take in the 'structure du mot' (CLG 180), and on the other occasion it is observed that phonemes follow 'certaines règles de structure' in combining to form morphemes or words (CLG 256). Both observations have to be seen in the light of the third occurrence of 'structure' (CLG 244), the only one supported by the critical edition. According to the source dating back to Saussure's first series of lectures on general linguistics in 1908, Saussure stated: 'Nous parlons de *construction* [et aussi de] *structure* des mots, etc.: ce terme est assez juste [à condition de sous-entendre] *construction à l'occasion de la parole*' (CLG (E) 405). However, he adds, from another point of view the term *construction* (which Saussure appears to use synonymously with *structure*) is misleading because it suggests also the formation of a word in historical time as the result of successive stages whereas its elements are in fact co-existing in speech (cf. *ibid.*, 405f.). We have to notice that Saussure speaks about the distinction between agglutination and analogical formation; the former constitutes an involuntary mechanical process, the latter a voluntary product of the human mind, in the context of diachronic linguistics (cf. CLG 243-5). It appears that Saussure did not favour the term *structure* because of its inherent ambiguity. Yet it is of historical (and theoretical) interest to point out that Saussure used the term in other contexts, unfortunately not included in the *Cours* by Bally and Sechehaye. On one occasion, when discussing the distinction between syntagmatic and associative (nowadays: paradigmatic) relations, he observed: 'Quand on parle de la structure d'un mot on évoque la deuxième espèce de

⁴ Jakobson reports that he had used the expression 'structural method' at the Congress of Slavists in Prague on October 7, 1929 (cf. SW I, 633; SW II, 711). Recently, O. Szemerényi (1971:56) has claimed that V. Mathesius was the first to introduce the term 'linguistique structurale et fonctionnelle' (TCLP 4:291 [1931]) into linguistic usage.

rappports [i.e. syntagmatic relations]. Ce sont les unités mises bout à bout comme support de certains rapports' (CLG(E) 278; LTS 48).⁵ We may conclude that 'structure' was used by Saussure as a general morphological term which is particularly useful when one tries to set up language typologies irrespective of their historical aspect; this view is confirmed by a statement of Saussure: 'C'est en comparant (au point de vue de la structure) la différence d'expression de la pensée humaine qu'on arrive à établir différents *types* de langues' (CLG(E) 442). Saussure points out in the same paragraph that the fundamental character of setting up typologies is that one deals with synchronic linguistics in dealing with the relationship of parts of a phrase since 'tout structure, tout système des éléments contemporains, c'est de la grammaire' (*ibid.*). I believe that this quotation would suggest that structure and system are synonymous terms; both apply exclusively to static linguistics, to grammar, though Saussure rejected the use of *structure* because it has been frequently confused with *construction* which he thought open to ambiguity. The above passage (though ignored by Engler, LTS 48) is of importance and may well explain how Saussure's emphasis on the systematic nature of language has given rise to his association with the name of structuralism in linguistics; despite the fact that it had not been included in the *Cours* and that structure had not been recognized as a technical term (even Godel [SM 277] ignored it), other statements in Saussure must have associated the term *structural linguistics* in the minds of 20th-century linguists, possibly under the influence of contemporary debates in psychology (cf. Krueger 1923.)

It is curious to note that the term *structure* and its derivatives which have dominated 20th-century debates in the social and natural sciences since the 1930s or 1940s and which reached a climax in the 1960s (cf. Todorov 1967 and Piaget 1968) was by no means a modern invention. Indeed, Sir William Jones (1746–94), for whom Aarsleff (1967:115ff.) has claimed paternity of the foundation of the New Philology (which traditionally is associated with Bopp, Rask, and Grimm), spoke, in his celebrated discourse on the Hindus of 1786, of Sanskrit as of having a 'wonderful structure' (cf. Lehmann 1967:15), and it is conceivable that Friedrich Schlegel (1772–1829), in his epoch-making *Über die Sprache und Weisheit der Indier* of 1808, took it from him when he noted in the first paragraph that the similarity between Sanskrit and Latin, Greek, Germanic and Persian 'consists not only in a great number of roots, which it shares with them, but [that] it extends to the innermost structure and grammar' (Schlegel 1808:1; Lehmann 1967:23). On the other hand, it is also possible that Schlegel, who spoke of 'innerste' or 'innere Structur' (cf. 1808:4, 28, and elsewhere) on several occasions, was influenced by other ideas which characterized the climate of opinion at the turn of the 19th century, and, indeed, I believe that it was so. The expression 'innerste Structur und Grammatik' of the opening paragraph, which I

⁵ Note that J.R. Firth, for example, spoke of word structure in terms of "pieces" or combinations of words' (PiL 122) and distinguished between syntagmatic and paradigmatic relations with reference to the distinction between structure and system (cf. PiL 128, but also his *Selected papers* [1968], p. 186).

interpret as an hendiadys indicating that inner structure and grammar are synonymous terms, turns up again in the third chapter, "Von der grammatischen Structur" (1808: 27–43) in which Schlegel speaks of the 'inneren Structur der Sprachen oder die vergleichende Grammatik' (28).⁶

Schlegel hints at the other, extra-linguistic, source of his inspiration for the use of the term '(inner) structure' in just the same passage which reads regarding the relationship between Sanskrit and other (Indo-European) languages:

Jener entscheidende Punkt aber, der hier alles aufhellen wird, ist die innre Structur der Sprachen oder die vergleichende Grammatik, welche uns ganz neue Aufschlüsse über die Genealogie der Sprachen auf ähnliche Weise geben wird, wie die *vergleichende Anatomie* über die höhere Naturgeschichte Licht gebracht hat. (1808:28; my italics; see Lehmann 1967:25 or Leroy 1967:12 for an English translation of this passage.)

I point out Schlegel's reference to comparative anatomy because this analogy and other notions associated with it proved influential in 19th-century linguistic thought whereas the term *structure* does not seem to have played any role in 19th-century linguistic debate and had to be re-introduced in our century. However, the fact that a given term was not used in European linguistics between 1816 and 1916 to any noticeable extent does not mean that the notion that language is a structure or a structured entity was absent from the minds of the practitioners. On the contrary, it is safe to say that no linguist would seriously have claimed that language is not in some way organized but a chaotic conglomerate of isolated terms of verbal expression. On the other hand, it is not important to have made the observation that language constitutes a structured whole or, as Meillet used to state repeatedly, 'un système où se tient', a statement which Lepschy (1970:34) has rightly termed 'a commonplace idea rather than an original view', but to have drawn important conclusions from this observation. Indeed, I believe with Saussure that it is crucial for the linguist to be aware of 'ce qu'il fait' (SM 31), and unless the analyst ventures beyond what is generally though perhaps only half-consciously assumed, it is doubtful whether he has made any contribution to the advancement of science.

It is the subject of the central sections of this essay to show in which way several generations of 19th-century linguists have, in one way or the other, taken an active part in the evolution of the structural concept of language, a concept which rests upon the distinction between 'synchronic' and 'diachronic' aspects of language description

⁶ It is of no importance to refute the erroneous idea that F. Schlegel was the first to introduce the term 'vergleichende Grammatik' into linguistics as Aarsleff, who generally tends to minimize his contribution to 19th-century linguistics, does (1967:157, note 115) by referring to (in fact only part of) the title of Antoine Court de Gébelin's (1725–84) *Histoire naturelle* (which includes the phrase 'grammaire universelle et comparative') of 1776 or to the fact that August Wilhelm Schlegel had used the same expression as early as 1803; what is important in the history of linguistics is that F. Schlegel's book, despite its many weaknesses, had a strong influence on subsequent developments in linguistics (cf. Benfey 1869:361; Delbrück 1919:41ff.; Pedersen 1962:19; Malmberg 1964:6; Leroy, 1967:12; and many others).

and the understanding of language as a system of mutually dependent and interrelated terms.

2. CENTRAL PARTS OF THE INQUIRY: STRUCTURALIST IDEAS IN THE 19TH CENTURY

Despite the various claims that have been made in favor of Sir William Jones or Friedrich Schlegel in the history of linguistics, it is still generally held, and I believe with some justification, that Bopp's *Conjugationssystem* of 1816 constitutes the 'breakthrough' of the New Philology (cf. Pedersen 1962:19; Hockett 1965:185; Kukenheim 1966:52; Leroy 1967:12; Arens 1969:175; Zwirner and Zwirner 1970:55, etc.). It is certainly not sheer accident that Bally and Secheyave published the *Cours* exactly one hundred years later, in 1916 (cf. Szemerényi 1971:11). In agreement with the two basic principles of 'climate of opinion' and 'paradigm' outlined in the "Preliminary Remarks" of this essay, I shall attempt to treat the topic in several chapters each marking a particular stage in the development of the structural conception of language.

2.1 *The Founding Fathers of the New Philology: Bopp, Rask and Grimm, and Humboldt's Contributions to Linguistic Theory (1800–1850)*

It would be naïve to believe that comparative or historical linguistics was born with one fell swoop; indeed, the history of linguistics shows that the incubation period so to speak was fairly long. Comparative grammar had several forerunners in the last three decades of the 18th century, beginning with the *Demonstratio idioma Ungarorum et Lapporum idem esse* (1770) by the Hungarian Jesuit János Sajnovics (1733–85). His countryman Sámuel Gyarmathi (1751–1830) produced grammatical evidence for the kinship between Hungarian and Finnish in his *Affinitas linguae Hungaricae cum linguis Fennicae origines grammaticae demonstrata* (1799),⁷ a work which Benfey (1869:278) termed the 'erste wirklich wissenschaftliche Sprachvergleichung'. Even where historical linguistics is concerned, which is generally associated with the names of Grimm and, with less justification, of Rask, F. Kovács (1971:245f.) has recently claimed that Miklós Révai (1749–1807) had anticipated their work by more than a decade with his *Antiquitates litteraturae hungaricae* (1803) and his voluminous *Elaboratio grammatica hungarica* (1806ff.).⁸ However, whereas Gyarmathi's work received some recognition

⁷ The title of this study of almost 400 pages continued: *Nec non vocabularia dialectorum Tataricarum et slavicarum cum Hungarica comparata*. Benfey ignores Sajnovics. Both Sajnovics' work of 1770 and Gyarmathi's of 1799 have been reprinted in 1968 by the Indiana University Research Center for the Language Sciences, Bloomington, the former with a memorial by Miklós Zsirai, the latter with an introduction by Thomas A. Sebeok.

⁸ Its third volume was published by Zs. Simonyi as late as 1908!

among European scholars,⁹ Sajnovics' study appears to have been ignored by them, while Révai's work came under heavy attack because of its author's anti-reformist stand in questions of Hungarian orthography in his own country and his achievements in historical method were downgraded and in fact effaced by his opponents. There is no reference to his work in any of the histories of linguistics. However, pointing to the work of these three Hungarian scholars as potential forerunners par excellence of 19th-century historical-comparative linguistics would mean an injustice to a number of others who might be credited with having widened the general awareness for the desirability of comparative studies in linguistics such as, of course, Sir William Jones or the Königsberg philosopher and professor of history and political economy Christian Jacob Kraus (1753–1807).¹⁰ We may also note that previous linguistic work, in particular the vast collections of data by the Spanish Jesuit Lorenzo Hervás y Panduro (1735–1809) in his *Catálogo de las lenguas de las naciones conocidas* (1800–05) and earlier by the German traveler and scientist Peter Simon Pallas (1741–1811) in his voluminous *Vocabularia linguarum totius orbis comparata* (1786–7), invited, the latter already in its title, the comparison of languages. Even at the risk of being accused of 'academic name dropping' (Robins 1967:199), I venture to refer to several studies which were written during the first decade of the 19th century, in order to show that Schlegel's book of 1808 was not an isolated event but that on the contrary the interest in almost any aspect of linguistic investigation, historical and comparative studies as well as theoretical and epistemological, must have been widespread. At the turn of the century, Christian Gottlob von Arndt (1743–1829), the only scholar of the ones listed here who is mentioned *en passant* in Benfey 1869 (768), devoted a lengthy study to the origin and kinship of the European languages based on Pallas' compilation;¹¹ in 1804 Johann Arnold Kanne (1773–1834) published his somewhat curious *Über die Verwandtschaft der griechischen und deutschen Sprache*. Two other works deserve mention: M. Mercier's *Lettre sur la possibilité de faire de la grammaire un art-science aussi certain dans ses principes, aussi rigoureux dans ses démonstrations, que les arts-sciences physico-mathématiques*, which appeared in Paris in 1806,¹² and Chr. Koch's (b. 1781) *De linguarum indole non ad logices sed psychologiae rationem revocanda*, published in Marburg in 1809.

As we may gather from these titles, the search for a codification of linguistics as a science was 'in the air' at the turn of the 19th century. Schlegel's book highlighted the

⁹ Cf. M. Zsirai's informative article of 1951, which was reprinted in PoL I:58–70, in which also the fate of Sajnovics is related (59f., 62, 64, and 66).

¹⁰ For information on Chr. J. Kraus and excerpts from his insightful "Rezension des Allgemeinen vergleichenden Wörterbuchs von [Peter Simon] Pallas" of 1787, see Arens 1969:136–46.

¹¹ His *Über den Ursprung und die verschiedenartige Verwandtschaft der europäischen Sprachen* was however not published before 1818 by Ludwig Klüber (1762–1837) in Frankfurt; 2nd 'wohlfeilere Ausgabe' (1827). Cf. the editor's preface (*op. cit.*, iii–viii especially pp. v–vii).

¹² Note that this 'letter' was written in summer 1799 ('en prairial an VI'), only to be published seven years later in book form by J.-B. Lemercier to whom it had been addressed. I regret that I have been unable so far to locate a copy of this 418-page volume in North America.

desire to make linguistics a worthwhile undertaking and challenged his contemporaries to work towards a comparative grammar of languages with a view to obtain valuable insights in earlier periods of civilization; the challenge was met in the subsequent decade by Bopp, Rask and Grimm. A few observations will have to be made to show in what way Schlegel's work was at once an expression of his time and a study of important influence upon these three great scholars (as on many other contemporaries).

The late Ernst Cassirer, in his informative paper on "Structuralism in modern linguistics" read before the Linguistic Circle of New York in 1945, observed that linguistic method at the beginning of the 19th century had to grope its way, having to proceed hesitatingly and tentatively, and he added:

It was natural that, in these first attempts, linguists looked for the help and guidance of other branches of knowledge that, long before, had established their methods and principles. History, physics, psychology could be used for this purpose. (Cassirer 1945:99f.)

I believe that the same observation can be made about later stages in the development of linguistics as I shall attempt to show in later chapters of this essay dealing with the Schleicherian and the Saussurean paradigm. The observation is particularly important however with regard to the initial stage of the 'new science' of linguistics. In the often quoted passage in his *Über die Sprache und Weisheit der Indier*, which I have cited in the introductory chapter, Schlegel makes an explicit reference to comparative anatomy in an attempt to describe the method of a future comparative grammar (cf. Schlegel 1808:28). It should be recalled that Schlegel, who had been studying in Paris from 1803 onwards, may well have taken courses with the Arabist A. I. Silvestre de Sacy (1758–1838), though not from the Aryanist Antoine-Léonard de Chézy (1773–1832), who was not appointed to the Institute before 1814. Yet the person who introduced him to linguistic studies, in particular Sanskrit, was Alexander Hamilton (1762–1824), an Englishman from the East-Indian Company, who was held captive in Paris during the years 1802–7 when the Napoleonic wars devastated Europe but whose contribution to linguistics is rarely recognized despite Schlegel's clear statement of indebtedness to this scholar in the introduction of his book and elsewhere (cf. Schlegel 1808:iv, vi, and 46).¹³ In addition the Zwirners (1970:54) suggest that in Paris Schlegel also 'became acquainted with comparative anatomy — at first in the form of comparative osteology', an observation which Schlegel's own writings seem to support. Namely apart from the reference to comparative anatomy, Schlegel frequently speaks of 'structure' and 'organic function'. When characterizing the grammatical organisa-

¹³ The standard books in the history of linguistics (e.g. Malmberg 1964, Waterman 1970, and others) ignore him completely. Tagliavini (1970:54,142) refers to him twice in connection with Schlegel, and Arens (1969:160) speaks only of an Englishman 'der sich dieses [i.e. Sanskrit] in Indien angeeignet hatte und bei seiner Rückkehr nach Europa ... verhindert war, in seine Heimat zurückzukehren'. For a rare appreciation of Hamilton (Zwirner & Zwirner 1970:53 confuse him with Sir William Hamilton, the Scottish philosopher), see R. W. Chambers and F. Norman 1929 (cf. also Aarsleff 1967:138f.), and, more recently, Rosane Rocher 1968 and 1970.

tion of Sanskrit (whose age he overrates greatly), he maintains that the analyst must concede that

die Structur der [indischen] Sprache durchaus *organisch gebildet*, durch Flexionen oder innere Veränderungen und Umbiegungen des Wurzellaufs in allen seinen Bedeutungen ramificiert, nicht bloß mechanisch durch angehängte Worte und Partikeln zusammengesetzt sei, wo denn die Wurzel selbst eigentlich unverändert und unfruchtbar bleibt. (1808:41f., my italics; Arens 1969:163)

Moreover, when Schlegel expounds his views of the two main types of the existing languages 'nach ihrem innern Bau' (1808:44–59), the reader may be reminded that in 1801 Jean Baptiste de Lamarck (1744–1829) published his influential *Système des animaux sans vertèbres, ou table général des classes, des ordres et des genres de ces animaux*, a book which may well have inspired linguists of the early period in their attempts at language typology and classification. Note that, apart from Friedrich Schlegel who initiated the morphological classification of languages, his brother August Wilhelm (1767–1845) in his *Observations sur la langue et la littérature provençales* (1818), Wilhelm von Humboldt (1767–1835) in his works of 1822 and 1836, and all the 19th-century linguists who followed many of his ideas, Pott, Schleicher, Steinthal, H. C. and G. von der Gabelentz and several others, all were much interested in this topic, which was further developed by F. N. Finck, Boas, Sapir, Whorf, Greenberg, and others in our century.

Delbrück (1880:5) claimed that Schlegel's use of 'organisch' and his metaphoric use of the plant analogy as well as his conception that organic growth in language is more sophisticated and noble than mechanical composition was fully in agreement with the spirit of the Romantic School. Schlegel had stated:

In der indischen oder griechischen Sprache ist jede *Wurzel* wahrhaft das, was der Name sagt, und wie ein *lebendiger Keim*; ... Daher der Reichtum einestheils und dann die Bestandtheit und Dauerhaftigkeit dieser Sprachen, von denen man wohl sagen kann, dass sie *organisch* entstanden sein, und ein *organisches Gewebe* bilden; ... In Sprachen hingegen, die statt der Flexion nur Affixa haben, sind die *Wurzeln* nicht eigentlich das; kein *fruchtbarer Same*, sondern nur wie ein Haufen Atome, ...; der Zusammenhang eigentlich kein anderer, als ein bloß mechanischer durch äussere Anfügung. Es fehlt diesen Sprachen im ersten Ursprunge an einem *Keim lebendiger Entfaltung*; ..., etc. (1808:50...52; my italics)

I must say that Schlegel's metaphorical usage reminds me more immediately of the 18th-century work in botany, e.g. Carl von Linné's (1707–78) *Genera plantarum* of 1742, which laid the foundation for the binary classification in the realm of plants and the work of his followers, than of any member of the German romanticist movement. Delbrück himself modified his position arguing that the opposition between *organisch* and *mechanisch* (and Schlegel's preference of the former) ought to be explained in terms of the romanticists' criticism of the mechanistic conception in the philosophy of the enlightenment, whereas his predilection for the image of the plant organism in his explanation of morphological structures in language might possibly be traced back to Goethe's work on the metamorphosis of plants, noting that a similar influence could

be observed in Jacob Grimm's writings (see Delbrück 1919:43f.). In fact Goethe published a *Versuch die Metamorphose der Pflanzen zu erklären* as early as 1790 and it is conceivable that Friedrich Schlegel was familiar with Goethe's work through direct contact with him while he was a student in Jena in the late 1790s.¹⁴ It is worth noting that Goethe also wrote an essay on comparative anatomy from the point of view of osteology during just the same period.¹⁵ But Goethe is certainly only one of the many potential sources of Schlegel's analogies; from 1795 onwards Georges Cuvier (1769–1832) worked as a professor in the central school of the Pantheon in Paris and as an assistant to Mertrud, the teacher of comparative anatomy at the Jardin des Plantes (cf. Zwirner & Zwirner 1970:55),¹⁶ publishing from 1800 onwards his *Leçons d'anatomie comparée*. The Zwirners (1970:54) assume that Schlegel became acquainted in Paris with comparative anatomy, primarily in the form of comparative osteology and suggest that the concept of inner structure derived from 18th-century works in petrography and palaeontology.¹⁷ Cuvier is generally regarded as having laid the foundation of both the science of anatomy and petrography at the outset of the 19th century (cf. Nordenskjöld 1932:33ff.) and, as we shall see in the following, linguists working in that time towards a scientific basis for the study of languages could not have escaped his influence.

2.1.1 The 'organism' concept in the works of Bopp, Grimm, and Rask

Franz Bopp's (1791–1867) *Conjugationssystem der Sanskritsprache in Vergleichung mit jenem der griechischen, lateinischen, persischen und germanischen Sprache* (1816) is generally accepted as having laid the foundation of the 'new science' of linguistics. Delbrück (1919:64–7) has shown that Schlegel's influence on Bopp's earlier work is very conspicuous, especially with regard to morphological structuring of words and typology. What is hardly less conspicuous however is the manner in which Bopp describes the method he intends to apply in his linguistic analyses,¹⁸ though this

¹⁴ See Goethe 1891:23–94; note that the volume bears the subtitle *Bildung und Umbildung organischer Naturen*.

¹⁵ Cf. Goethe, "Erster Entwurf einer allgemeinen Einleitung in die vergleichende Anatomie, ausgehend von der Osteologie". This essay, signed 'Jena, im Januar 1795' was not published before 1817 however; see his *Naturwissenschaftliche Schriften*, vol. 8 (1893), 5–89.

¹⁶ Note that both the British Museum Catalogue (vol. 158, col. 595) and the General Catalogue of the National Library in Paris (vol. 113, p. 124) do not give Mertrud's first name. Mertrud published a *Discours prononcé à l'amphithéâtre [sic!] du Muséum National d'Histoire Naturelle, pour la clôture du cours de l'anatomie des animaux* (1794).

¹⁷ The Zwirners (1970:42–7) are very critical of Goethe's work in the natural sciences and refute traditional claims of his importance in the advancement of comparative anatomy, the metamorphosis of plants, etc. This does, of course, not preclude an influence of Goethe's work on F. Schlegel. As a matter of fact, in the fall of 1802, Schlegel had been able to obtain a letter of recommendation from Cuvier (cf. Aarsleff 1967:155, note 108).

¹⁸ Bopp spent the years 1817–19 in London; an English translation of the linguistic part of his *Conjugationssystem* appeared, in revised form, in the first volume of the *Annals of Oriental Literature* (1820) under the title *Analytical comparison of the Sanskrit, Greek, Latin, and Teutonic languages, shewing [sic!] the original identity of their grammatical structure*; Friedrich Techmer (1843–91) re-edited it, with an introduction (3–14), in his *Internationale Zeitschrift für Allgemeine Sprachwissenschaft* 4.15–60 (1889); new ed. Amsterdam, J. Benjamins, 1973.