READINGS IN LINGUISTICS

The development of descriptive linguistics in America since 1925

Second Edition

Edited for the Committee
on Language Programs by

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PREFACE

The term American Linguistics is current today in two principal senses: first, the registration and analysis of the indigenous languages; and second the American style in linguistic thought. For the first I shall use the specific 'Amerindian Linguistics' as no worse a name than any other. Finding a good specific name for the American style is a desperate matter; I shall simply say 'American Linguistics' without argument, because to name any competing term would involve at least equally invidious implications.

The sequence and the ambiguity are historically founded. American Linguistics derives, ultimately and also currently, from the brute necessities of stating what has been found in a particular language. It got its decisive direction when it was decided that an indigenous language could be described better without any preexistent scheme of what a language must be than with the usual reliance upon Latin as the model. It is usual to name Franz Boas in this connection; other early contributors are represented in his Handbook (see p. 385 here). From that time to today, the style of American Linguistics continues unbroken, through vast total changes. One transition may be mentioned here; the rest is in the Readings.

The abandonment of deduction in favor of induction has never been reversed. At first it left the science stripped of general doctrines about all languages. Favorable at the start, this state of opinion could be, and in many older workers actually was, maintained past its function and could become a hindrance to further development. Once a number of unprejudiced descriptions had resulted from it, induction could be applied to those new descriptions too, and general doctrines about all languages could emerge again. It should be clear that these would have a better claim to credence than those founded upon Latin or upon a philosophy. But the Boas generation had succeeded in their work by rejecting general doctrine; it would have been strange if they could now have reversed themselves and embraced general doctrines again. Their leading principle was that every language has to be explained from the inside out, the explanation being formulated under the logic of that language. Benevolence, of which Boas among others had plenty, was not enough to enable them to adopt new doctrine. A general truth about language, to Boas's way of thinking (or perhaps feeling) would have to be based on nothing less than the biological or indeed even the physiological character of man (he was a physical anthropologist too). Today we can, if we try, base

phonemics upon information theory, or upon the theory of games, or a general theory of social interaction, but such theories still lay far in the future. What actually happened consisted principally of the advent of Sapir and Bloomfield.

Both trained in traditional historical linguistics and specifically in Germanics, and always sympathetically attentive to such studies here and abroad; Sapir by instinct what is popularly called 'a psychologist' and possessing unsurpassable empathy and quickness of wit, while Bloomfield was distinguished in disinterested wisdom and love of solid structure, their impacts upon American Linguistics were quite different in essence while both serving similarly to advance linguistic thought beyond the Boas pattern. Sapir stimulated and contributed insights; Bloomfield constructed and simplified. In the long run, then, it had to be Bloomfield that served as the Newton of American Linguistics, while Sapir was its Leibniz.

They valued de Saussure's contribution in equal measure, but used it in ways as different as their different personalities. Sapir gained insights, and stimulation to think out patterns of what very likely goes on inside the skull of homo loquens, taking him one at a time. Bloomfield took what he found either solid or well shaped, and shaped the first and made the second firm, for use in constructing his model for what plainly goes on between person and person in speech communication. For him there was enough that demanded unambiguous statement in what we all see and hear; why borrow trouble by explaining the invisible?

For me at least (I don't know how many readers share this notion) the English words statement and explanation have quite different connotations, and I believe that Bloomfield felt the same. If the facts have been fully stated, it is perverse or childish to demand an explanation into the bargain. Explanation could serve only to facilitate filling out a fractional statement into a whole statement; or is explanation something magical? That is, if explanation is to have any useful difference in denotation from statement, it can only mean 'statement of pattern', while statement is reserved for the meaning 'statement of what is there and in what spot each item is': the same, but from a different viewpoint. To ascribe any other efficacy to explanation is an obfuscation; and to me that is the difference in connotation: that such obfuscation easily gets attached to explanation, but not to statement.

This Second Edition, because the time has been too short for thorough revision, is necessarily only a reissue with correction of misprints and errors. Among the shortcomings in the original plan of the Readings, the most troublesome has been the lack of papers on English phonology. It was fortunate, in one way, that some key papers in this field (along with others by the same author) were withheld from reprinting in 1957 on the grounds of impossibility of keeping them in perspective; for they would have made the book too large for safe planning of page-composition, manufacture, and pricing. As the time approached, far earlier than expected, when the book had to be kept in print in one form or another, the responsible Committee planned to have a history of American developments in English phonology written for inclusion here; but this plan has also had to be dropped for lack of time to write a usable history. Instead, we now include, at the end of the volume, the bibliography from James Sledd's review of An outline of English Structure, by George L. Trager and Henry Lee Smith, Jr., Lang. 31.312 (1955).

I have also been directed to state, as fully as the space allows, just how the First Edition came to assume its shape and structure.

Bernard Bloch's Bibliography of Descriptive Linguistics, American Writings to 1952, runs to 632 items. These Readings include 30 articles from that list, plus six others not listed by Bloch because of their historical themes—numbers 7, 8, 15, 28, 30, 31. In bulk the fraction is still smaller than 30/362, for many Bloch items are whole books or large groups of book-chapters. About 94 percent of the pertinent literature had to be excluded in one way or another. The rationale of that process is now to be displayed.

The contents of the present book were selected with extreme deliberation. In 1955 I worked out and circulated a list intended to be merely suggestive— to stimulate correspondents to send in their own. From the three dozen useful responses, it appeared that about 800 pages would have satisfied the sum of the well-argued demands. The impossibility of that size of book was clear. Fortunately, however, many correspondents had foreseen that result; and, what is even more significant here, several of them had independently proposed the very same solution that ultimately forced itself upon us: to start out from the largest coherent group of papers that could be found within the list, and to associate other papers with them to the limit of useful coherence—so that each excluded paper would have (if included) yielded more distraction than benefit to the readers. It was believed that the size of the book would then be about right, and so the event proved—over a year later.

The work of typewriter-composition, begun with plainly indispensable items, was interrupted for half a year by illness. Then I set up a minimum list of 350 pages, plus an about equal list of candidates for addition to these. In October of 1956 the Committee, going outside this double list to a total of some 1000 pages considered in all, established its own Table of Contents, from which, as the work approached completion, I departed only to the extent of dropping one article of my own and adding the last one in the book —which had become available in page-proof just in time for a publication-date allowing full use of the book in the 1957 Linguistic Institute.

The content of the book was now as nearly as possible in equilibrium with the known needs and circumstances. The central readership had very clearly defined itself in the course of our researches. For example, this readership is not centered anywhere near Linguistic Anthropology, the present-day form of the field where the Sapir–Bloomfield tradition had its roots, a departure which has been considered deplorable by anthropologist reviewers of our book but is no more surprising than the fact that the readers of frontier mathematical books are no longer mostly the practioners of Mathematical Astronomy, etc.

The users of this book were of course expected to have needs which it does not cover. Some of these have been or automatically will be covered by other books, such as volumes of collected papers (of Sapir and Whorf so far), or symposium volumes (Language and Culture, Psycholinguistics), or monographs and textbooks such as are now appearing with increasing frequency. Other no less important needs obviously are not and never can be covered by any collection of old papers, such as the need for guidance in the first collecting and digesting of field data, where the usefulness of print, great as it may be, depends on a teacher who selects each time the very item which he wants the student to read next, and interprets and applies its message in a context of practical work, with all the modifications and warnings needed.

If the pattern of this book had been determined by fiat, instead of growing out of the situation as it did, the prescription would have read: Include just what notably fulfills the promise of the word 'development' in the subtitle, and exclude all else, for instance any article which reports on a single language without at the same time going beyond first statement into re-statement via some at least partly new theoretical development. Then if the result is to make Linguistics appear to be a science of restatement and of approach to ultimate and definitive statement, the fault (if it is a fault) lies in the necessities of making a useful book and not in the science itself.

Finally, the size limit absolutely forbade any further pursuit of the branches that keep leaving the main stem during the development of this science as of any other. In our case, examples are perception theory, information theory, translation theory, discourse analysis, and language-teaching theory.

In the years following publication of Bloomfield's book Language in 1933, the outside world had, in the journals represented in this volume, what may have seemed to be ample opportunity to watch the development of Linguistics in America. That would, however, have been a quite illusory notion. There is no way to convey in print an adequate impression of the lively exchanges of ideas that have been going on in each summer's Linguistic Institute, in local clubs, in social clusters and tête-à-têtes, in annual meetings of the Linguistic Society of America, in letters and in the circulating of work-papers, and in groupings for some programmed task ⟨108⟩ or in universities. Little or nothing of this can be reflected here.

Nothing like the work-papers could be reprinted: these and more casual exchanges of ideas can only be guessed at occasionally, where the style of some printed paper hints at sociable thinking; the papers of Studies in Linguistics were unavailable on principle, since its purpose was to circulate tentative formulations. For a similar reason, book-reviews were excluded—against my wish, for they are often the best documentation for this or that notion, and have allowed beginners to float trial-balloons in a journal which otherwise seems appropriate only to more finished productions: most of us are relatively young—only Sapir and Bloomfield have died, among our twenty-six writers spanning three decades.

⟦These double brackets serve as my signature; and ⟨ ⟩ enclose page-numbers of this book.—Martin Joos.⟧

CONTENTS

DE SAUSSURE'S SYSTEM OF LINGUISTICS

RULON S. WELLS
Word 3.1–31—1947

1. Though the Cours de linguistique générale[1] is justly credited with providing 'a theoretic foundation to the newer trend of linguistics study,'[2] it strikes the reader as very often obscure in intention, not seldom inconsistent with itself, and in the main too barren of detail to be satisfying. In short, it needs exegesis. The present study takes a cue from de Saussure's treatment of language, by treating his thought as a synchronic self-contained system.[3] It is our thesis that the solutions to most of the unclarities in the Cours can be resolved by careful internal collation of the Cours itself. Often a problem presented by a certain statement is cleared up by one or more slightly different expressions of the same idea to be found elsewhere in the book. Much of our work consists in bringing such scattered passages together. Beyond this, analysis shows how the various doctrines that de Saussure maintains are related to fundamental principles. In stating his ideas as sharply as possible, we bring to bear insights that have been gained since his day. Occasionally our interpretation leads us to venture a guess about how de Saussure would have dealt with facts or viewpoints that do not come up in the Cours.

Naturally, many of the ambiguities and inadequacies of exposition in the Cours must be attributed to the circumstances under which the work was prepared. The editors' task of integrating students' notes (not their own) on courses given in the three years 1906–7, 1908–9, and 1910–11 must have called for a good deal of adjustment in the wording and the manner of exposition. However, the main theses are expressed over and over, giving confidence that they are amply attested in the notes. Moreover, the editors occasionally indicate in footnotes points which

they do not understand, or feel impelled to comment upon. This suggests that most of what they wrote had a clear basis in the notes or in their memory of discussions with de Saussure.

After the difficulties due to de Saussure's or his editors' exposition have been resolved there remain the ones inherent in the thought itself. Two evidently untenable notions we probe into at some length: the idea that the formal systematic properties of phonemes are independent of their specific quality, and the idea that a change suffered by a system (a particular language at a particular time) is never engendered by that system itself.

Our treatment falls into six sections, as follows: Phonetics, Phonemics, Historical Phonetics; Language as a Synchronic System; Langue and Parole; Linguistic Change; Critique; de Saussure as Methodologist.

Phonetics, Phonemics, Historical Phonetics

2. De Saussure distinguishes three different points of view from which speech may be studied. First, it may be studied as a set of physical-physiological events with correlated psychic events: phonation, sound-waves, audition. Second, it may be studied from the point of view of native speakers and hearers of the language to which it belongs. And third, one may study the sound-changes which a language undergoes in the course of time. Since 'bien loin que l'objet précède le point de vue, on dirait que c'est le point de vue qui crée l'objet' (23b), we may recognize three sciences, each of which studies speech in its own way: phonetics, phonemics (see §5), historical phonetics.

3. The phonational act (acte phonatoire 69a, c, 83b, 103c; cf. 65b) gives rise, in the hearer, to an acoustic image which is distinct from the physical sound (29a). Viewed as physical sounds, many words, phrases, and even whole sentences are continuous; but the acoustic images to which they give rise are not continuous but beaded, segmented, sequences of units (32b, 64a).

La délimitation des sons de la chaîne parlée ne peut donc reposer que sur l'impression acoustique; mais pour leur description, il en va autrement. Elle ne saurait être faite que sur le base de l'acte articulatoire; car les unités acoustiques prises dans leur propre chaîne sont inanalysables. Il faut recourir à la chaîne des mouvements de phonation; on remarque alors qu'au même son correspond le même acte: b (temps acoustique) = b′ (temps articulatoire). Les

premières unités qu'on obtient en découpant la chaîne parlée seront composées de b et b'; on les appelle phonèmes; le phonème est la somme des impressions acoustiques et des mouvements articulatoires, de l'unité entendue et de l'unité parlée, l'une conditionnant l'autre: ainsi c'est déjà une unité complexe, qui a un pied dans chaque chaîne (65b).

As for the length of these phonèmes, 'la chaîne acoustique ne se divise pas en temps égaux, mais en temps homogènes, charactérisés par l'unité d'impression' (64a).

To paraphrase: phonetics (phonologie[4]) does not treat sounds in the raw, but as broken up into segments. It must consider acoustic images as well as phonation (63b), and the reason is that only the images can yield the segments. But (and de Saussure's doctrine presumably reflects the conspicuous failure on the part of phoneticians to produce a workable analysis of sounds as such) it must return to phonation for a means of distinguishing one sound from another. This procedure will work because 'un phonème est identifié quand on a déterminé l'acte phonatoire' (69c).

4. 'La phonologie [phonetics] est en dehors du temps [cf. 135, 194b end, 202c–3c], puisque le mécanisme de l'articulation reste toujours semblable à lui-même' (56a). This differentiates it from historical phonetics, which 'se meut dans le temps' (ibid.). Moreover, 'il peut être intéressant de rechercher les causes de ces changements, et l'étude des sons nous y aidera; mais cela n'est pas essentiel: pour la science de la langue, il suffira toujours de constater les transformations de sons et de calculer leurs effets' (37a).

5. The third science that deals with sound is linguistics in the narrow sense, that is, linguistics of langue.[5] It is distinct from phonetics. 'Quand on a expliqué tous les mouvements de l'appareil vocal nécessaires pour produire chaque impression acoustique, on n'a éclairé en rien le problème de la langue. Celle-ci est un système basé sur l'opposition psychique de ces impressions acoustiques' (56b).

De Saussure nowhere differentiates a specific sub-branch of linguistics dealing with phonemes, as is usual nowadays. However, he shows (see §§20, 23, 27) that langue is made up of phonemes and morphemes, both of which form systems. Hence, it is easy to abstract the materials in the Cours which fall under phonemics, and it is convenient to do so for the pur-

poses of exposition and comparison. But it is necessary to warn the reader that no such concept and no such term are to be found in de Saussure.

6. The trichotomy of speech-sciences into phonetics, phonemics, and historical phonetics fits neatly into the structure of de Saussure's classification. Phonetics has to do with parole (56b), phonemics with langue, and historical phonetics with the diachronic aspect. The how and why will be shown in §§23, 36, 37. Let it suffice for now to remark that according to de Saussure, phonemics is irrelevant to historical studies.

7. Before comparing de Saussure's conception of phonemes with that of the present day, we must eliminate from consideration the superficially similar notion of phonetic species (espèce phonologique).

The Appendix to the Introduction (63–95), Principes de phonologie, is an excursus dealing, not with langue like the rest of the book, but with phonetics. It incorporates material not only from the lectures of 1906–7 and 1910–11, but also from three lectures of 1897 on the theory of the syllable (63a). Regardless of what de Saussure may have said about the independence of linguistics from phonetics, he devised an original phonetic theory with the aim of making intelligible the Indo-European semivowels (79b); the excursus expounds this theory of what constitutes a syllabic, the core of a syllable.

The fundamental classification of speech-sounds is by their degree of aperture (70c); this yields seven classes: stops; spirants; nasals; liquids; i, u, ü (the semivowels 75b); e, o, ö; a. (Only the main sounds are reckoned with, 71c, 73fn., 80d, 85b.) Sounds of all classes except the a-class (80a, 81b) exist in pairs: an imposive or fermant (symbolized p̌, ǐ, etc.) and an explosive or ouvrant variety (p̂, ȋ, etc.) (80b, 81c, 93a). A syllabic (point vocalique) is now very simply defined as an implosion not immediately preceded by another implosion (87c; cf. the ed. note of 94b); when a second implosion follows immediately without interruption, the two implosions together form a diphthong (92b). It follows that every sound except a is capable of functioning either as syllabic or as non-syllabic; in practice, the ambivalence is mainly limited to nasals, liquids and semivowels (88a).

8. Now when we consider any minimal segment of speech, e.g. t, 'Le fragment irréductible t, pris à part, peut être considéré in abstracto, en dehors du temps. On peut parler de t en général, comme de l'espèce T (nous désignerons les espèces par des majuscules), de i comme de l'espèce I, en ne s'attachant qu'au caractère distinctif, sans se préoccuper de tout ce qui dépend de la succession dans le temps' (66a). This sounds as if species were phonemes, whose allophones we are being invited to neglect. The impression seems to be supported by the statement: 'on parle de P [the species of p-sounds] comme on parlerait d'une espèce zoologique; il y

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[4] 'La physiologie des sons (all. Laut- ou Sprachphysiologie) est souvent appelée "phonétique" (all. Phonetik, angl. phonetics). Ce terme nous semble impropre; nous le remplaçons par celui de phonologie. Car phonétique a d'abord désigné et doit continuer à désigner l'étude des évolutions des sons...' (55–6). This argument has not prevailed; and standard English terminology will be best preserved by translating phonologie as phonetics and phonétique as historical phonetics.

[5] We adopt langue and parole as technical terms in English.

a des exemplaires mâles et femelles, mais pas d'exemplaire idéal de l'espèce' (82b). But what can we make of it, then, when he (ibid.) calls species abstractions? We shall see (§56) how strongly he insists that phonemes are not abstract but concrete.

9. The answer is that 'phonetic species' is primarily a phonetic, not a phonemic notion. For instance, i and y are of the same phonetic species (presumably regardless of the language where they occur), and so are u and w (87d-8a, 88d-9, 92a, 93). The whole point of de Saussure's theory of the syllable is that one cannot tell just from knowing the phonetic species of a sound whether it will be syllabic or not (89c). Another matter on which the theory throws light is length by position: only an implosive consonant, not an explosive one, can make length by position (91a, b). So for phonetic purposes it is vital to distinguish implosive and explosive; and hence 'on peut dire que P n'était rien sinon une unité abstraite réunissant les caractères communs de p̌ et de p̂, qui seuls se rencontrent dans la réalité (82b)'. The great mistake of phonetics was to consider only these abstractions (82c), that is, not to consider separately implosive allophones and explosive allophones. Otherwise put, its mistake was to neglect what Sweet calls synthesis, the fact 'qu'il y a dans la langue non seulement des sons, mais des étendues de sons parlés' (77c): Therefore, 'à côté de la phonologie des espèces, il y a donc place pour une science qui prend pour point de départ les groupes binaires et les consécutions de phonèmes, et c'est tout autre chose' (78b; cf. 79). We hereinafter call these two studies analytic and synthetic phonetics respectively.

10. Several unclarities remain. If phonetic species are purely phonetic, what does de Saussure mean by their 'caractère distinctif'? Actually, de Saussure's term refers only to the kind of units that phoneticians have hitherto talked about. Now phoneticians do not distinguish sounds to the limit of discriminability; they deal with types of sounds that they call 'the s-sound', 'the front unrounded a-sound', etc. Each type includes a range of sounds, whose limits are left vague. In practice the limits are often decided by the phonemics of the languages best known to the phoneticians, particularly their native tongues. This practice accounts for many a resemblance between phonetic species and phonemes, in respect of their range of membership. De Saussure does not say this, but we, having hindsight, can see that 'phonetic species' was a mixture of phonetics and phonemics; and de Saussure does say in effect that in limiting their attention to phonetic species, phoneticians do a halfway job. Qua phonetician, de Saussure has no interest in making precise the notion of species, but only in distinguishing between implosives and explosives. And hence, pursuant to his policy of simplification (see references in §7), he does not raise such questions as 'In a language where i and y contrast and so are phonemically distinct, do they belong to the

same species?' and, conversely, 'In a language where a stop and a spirant or a voiced and a voiceless stop belong to the same phoneme, do they belong to the same species?' The implication (see 71b, 84d; 87c is carelessly worded) is that one species falls wholly within one degree of aperture. But the fact that languages differ markedly in the phonetic varieties of sounds that they unite under one phoneme is not brought out by de Saussure. Occasional individual examples (e.g. 72b) may illustrate it, but the reader of the Cours would not emerge with an appreciation of it as a sweeping, general truth. Pointing it out was Franz Boas's contribution; de Saussure approached phonemics by a different route, namely by drawing the parallel between morphemic and phonemic systems.

11. De Saussure does speak (68-9) of the distinctive character of species: 'énumérer ces facteurs de production du son, ce n'est pas encore déterminer les éléments différentiels des phonèmes. Pour classer ces derniers, il importe bien moins de savoir en quoi ils consistent que ce qui les distingue les uns des autres.' But the context shows that the viewpoint is not specifically phonemic; he means merely that 'par exemple l'expiration, élément positif, mais qui intervient dans toute acte phonatoire, n'a pas de valeur différentiatrice; tandis que l'absence de résonance nasale, facteur négatif, servira, aussi bien que sa présence, à caractériser des phonèmes' (ibid.). It would do so in any language. The English a is as much characterized by the absence of nasalization as the French a, although in French but not in English there is an opposing ã. French š, ž, ɲ are phonetically differentiated from the other French sounds not merely by being 'back' (which is their phonemic position), but by being palatal. At least there is no denial in de Saussure, explicit or implicit, of the above interpretation; and it is sounder method to lean over backward than to read too much into him.

Outside of the Appendix, there is just one other passage where de Saussure speaks of species; this is apropos of sound-changes: 'Les exemples précédents montrent déjà que les phénomènes phonétiques, loin d'être toujours absolus, sont le plus souvent liés à des conditions déterminées; autrement dit, ce n'est pas l'espèce phonologique qui se transforme, mais le phonème tel qu'il se présente dans certaines conditions d'entourage, d'accentuation, etc.' (199b). Not analytic but only synthetic phonetics (see §9 end) can help historical phonetics.

12. It has been necessary to devote a very elaborate discussion to de Saussure's notion of phonetic species, in order to disentangle it from his genuine contribution to phonemics. Phonème, in the passages where we have encountered it so far, has meant simply an acoustically minimal and homogeneous segment of speech. Now de Saussure never lays down the necessary and sufficient conditions under which

two sounds are the same phoneme; therefore we cannot ascertain in what degree his sense of phoneme is similar to ours, except by squeezing what information we can from his few examples.

In the first place, the number of phonemes, unlike the number of sounds, is sharply definite (32b, 164c). In the second place, we are invited (83b, 84c) to disregard, even in phonetics, 'furtive' transitional sounds which are not perceivable by the ear [of native speakers? of trained phoneticians?]. In the third place, the existence of voiceless m and l is noted in French (72e, 74 D 1), 'mais les sujets parlants n'y voient pas un élément différentiel'—differential, presumably, from the voiced varieties. In other words, we are told to consider voiceless m, l as belonging in French to the m and l phonemes respectively. In the fourth place, the existence of free and individual variations is noted, apropos of French 'r grasseyé' and 'r roulé' (164d–5a). In the fifth place, speaking about synthetic phonetics (see §9 end), de Saussure says (78–9): 'Dès qu'il s'agit de prononcer deux sons combinés,...on est obligé de tenir compte de la discordance possible entre l'effet cherché et l'effet produit; il n'est pas toujours en notre pouvoir de prononcer ce que nous avons voulu. La liberté de lier des espèces phonologiques est limitée par la possibilité de lier les mouvements articulatoires.'

All these stray hints do not tell us the necessary and sufficient conditions for two distinguishable sounds to be assigned to the same phoneme. The concept of complementary distribution is nowhere stated, and only remotely implied. The drift of de Saussure's remarks is that two sounds (of the same dialect, let us add) belong to one phoneme if they do not convey to native hearers distinct acoustic impressions. But this means that an implosive and its corresponding explosive, being acoustically different (65 fn, 79c–80), are different phonemes, a conclusion proclaimed by de Saussure (81c). But perhaps we ought to regard the following amazing statement as a lapse: When the early Greeks distinguished between kappa and koppa, 'Il s'agissait de noter deux nuances réelle~ de la prononciation, le k étant tantôt palatal, tantôt vélaire; d'ailleurs le koppa a disparu dans la suite' (65 fn; emphasis ours).

13. If de Saussure has not told us definitely whether and when two segments belong to one phoneme, at least he plainly answers the converse question: one • segment can never belong to two phonemes at once. Thus the accent of a syllabic can not be considered a separate phoneme. His stated reason is that 'la syllabe [rather le point vocalique, since a syllable may be more than one segment, 65a, 66a] et son accent ne constituent qu'un acte phonatoire; il n'y a pas dualité à l'intérieur de cet acte, mais seulement des oppositions diverses avec ce qui est à côté' (103c). It is surprising to find unity ascribed here to the phonational act rather than to the acoustic image (65b, 'l'unité parlée,' is not to be taken seriously,

since de Saussure has told us that la chaîne parlée is broken up into units only by its correspondence with the acoustic image); but the import is the same.

14. The upshot of all the previous discussion is that a number of passages which might seem, to a hindsighted reader, adumbrations of phonemics cannot be so regarded after careful study. Yet de Saussure does make a major contribution to phonemics, greater than any of his predecessors. For his whole system is the contribution. In this system, phonemics occupies a clear place; it belongs to the system only because of its analogies with grammar. The discussion of phonemics is generally a simple transfer, mutatis mutandis, of principles of grammar proper, that is, of the relations between morphemes, and this schematizing and abstract theory, rather than any specific and particular analysis, is de Saussure's contribution to phonemics. We are thus led to an abrégé of his entire system.

Language as Synchronic System

15. Speech (la parole) is made up (146c; cf. 167a) of two linear sequences, each of which is articulated (26b, 156c), that is discrete. The members of the one sequence are tranches de sonorité (146a, 150b) which are in turn sequences of one or more phonemes (180b); and (103, 170c) two phonemes cannot occur at once (cf. §13). Now phonemes are defined as sums of acoustic images and articulatory movements; but in the synchronic study of langue (see §§33, 37), the acoustic image alone is relevant (98c). So much so that in one place de Saussure proposes, on etymological grounds, to discard the term 'phoneme'. 'C'est parce que les mots de la langue sont pour nous des images acoustiques qu'il faut éviter de parler des "phonèmes" dont ils sont composés. Ce terme, impliquant une idée d'action vocale, ne peut convenir qu'au mot parlé, à la réalisation de l'image intérieur dans le discours. En parlant des sons et des syllabes d'un mot, on évite ce malentendu, pourvu qu'on se souvienne qu'il s'agit de l'image acoustique' (98d). In practice he retains the term; but we must remember that in the passages quoted from now on, it has a more limited sense; the phoneme no longer 'has a foot in each chain' (cf. §3).

16. The other sequence composing speech is a sequence of meanings. A meaning is not a physical thing but a concept (98c). The boundaries of a tranche de sonorité are not marked phonemically, but only by the fact that just this much of the stream of speech is correlated with a certain meaning and the next tranche is correlated with another meaning (145d–6a; cf. 135a).

A tranche de sonorité consisting of one (180b) or more phonemes which is associated with a concept de Saussure calls a signifiant; the concept with which it is correlated, a signifié; and 'nous appelons signe la combinaison du concept et de l'image acoustique', (99c), 'le total résultant de l'association d'un signi-

fiant à un signifié' (100c; cf. 32a, 99d, 144c–5). How-ever, de Saussure does not always adhere strictly to this definition. Now and then (e.g. 159b) he applies the term sign to 'le rapport qui relie ses deux élé-ments'; more often (e.g. 26b, 33c, 109d twice; 208c; also 98d, 99c, 160a, 162b, where mots, which are elsewhere called signs, are treated as signifiants) he lapses into 'l'usage courant' according to which 'ce terme désigne généralement l'image acoustique seule' (99c). But a definition that conforms better to de Saussure's regular usage in practice is that a sign is neither a relation nor a combination of signi-fiant and of signifié, but the signifiant itself qua sig-nifiant. In adding 'qua signifiant' we are taking note of the caution that 'si arbor est appelé signe, ce n'est qu'en tant qu'il porte le concept "arbre"' (99c), which means two facts: 1) every sign is a tranche de sonorité but not vice versa (135, 146–7); 2) if one tranche de sonorité is associated with two distinct signifiés, it constitutes two distinct, though homony-mous, signs (147a, 255c; cf. 150b–1). Needless to say, the converse is also true: if one signifié is expressed by two (therefore synonymous) signifiants, these signifiants are still different signs (147c–8); this applies even to what would nowadays be regarded as morpheme alternants. See also §23. The signifié is also, for its part, sometimes called 'la signification' (158e, 159c, 160a, 162b). Our proposed emendation harmonizes with the definition (146a) of a linguistic unit (which is a linguistic entity 145c, this in turn being, 144a, a sign): 'une tranche de sonorité qui est, à l'exclusion de ce qui précède et de ce qui suit dans la chaîne parlée, le signifiant d'un certain concept' (italicized in the text).

17. Signs are the primary objects of linguistic study. Words, word-groups, and sentences are all signs—signifiants linked with signifiés (177c); but they are, in general, further analyzable into compo-nent signs. Those that are simple (not further ana-lyzable) are the units par excellence of linguistics (145 ff.).

The term 'units' (unités) is de Saussure's own; it is obvious from their definition that the simple units are essentially the same as the morphemes of Bau-douin de Courtenay and of modern linguistics, except that what we today regard as morpheme alternants, de Saussure subsumes under his broader concept of alternance (cf. §§22, 45). The term morphème was current in de Saussure's day, but with a specialized significance: the 'formative' elements of a word (affixes, endings, etc.) as opposed to the root. For clarity's sake, let us define a simple unit (=simple sign) more rigorously than he did but probably in accord with his intentions, as a sign meeting the following conditions: 1) it is an uninterrupted linear sequence of phonemes; 2) it has a meaning; 3) it is not divisible into two sequences meeting conditions 1) and 2) and such that its meaning is derived from their meanings. Thus there are two signs haiə in

Southern British English: one spelled higher, is composed of hai and -ə; the other, spelled hire, cannot be divided into parts which meet the required conditions and it is therefore a simple sign. A com-pound sign, i.e. an uninterrupted sequence of mor-phemes (no two of which occur simultaneously) is called a syntagm (170c).

18. De Saussure ascribes (100b, 103b) to linguistic signs two fundamental properties; they are arbitrary and they are arranged in a line. But he neglects to mention in this place another essential trait which figures far more prominently in his theory than linearity, to wit that linguistic signs are systematic. The characterization of langue as a deposit of signs 'passivement enregistrés' (see §31) does not mean that these signs are disordered, and simply a nomen-clature (34c, 97a, 158d; cf. 162b); on the contrary, they form a very tightly knit system (26b, 29g, 32a, 43b, 107c, 124c, 149d, 154a, 157e). 'Arbitrary' and 'systematic' are the two fundamental properties of signs. A further discussion of the arbitrariness of the sign will be deferred to §§28, 44; it will suffice here to say that signs are arbitrary, according to de Saussure, in the sense that they are unmotivated (101c, 102b, 180–4): there is no natural, inherent con-nection between a signifiant and its signifié; any sig-nifié could be expressed by any signifiant. This is proved a posteriori by the existence of different lan-guages and by the fact that languages change. The same concept is equally well expressed by bœuf (which in turn came from a former bov-em) and by Ochs (100). The element of onomatopy in language is too slight to invalidate the general principle (101–2). Linguistic signs are not aptly called symbols, since 'symbol' ordinarily connotes a more or less natural non-arbitrary sign (101b).

19. Simple signs (e.g. Fr. neuf, dix, vingt) are wholly arbitrary (unmotivated), but syntagms (e.g. dix-neuf) are relatively motivated (180–4). Their motivation consists in the fact that each is related syntagmatically to its components and associatively to the other syntagms having the same pattern (182b). But this is a poor explanation of what de Saussure is driving at, since simple signs also stand both in syn-tagmatic and in associative relations. A better state-ment, we suggest, would be as follows. Let us call a class of similar syntagms a pattern. Given a syn-tagm S_1 consisting of morphemes M_1, M_2,...M_n, then any syntagm belongs to the same pattern as S_1 if its first morpheme belongs to the same morpheme-class as M_1, its second to the same class as M_2, and so on to M_n. Now patterns have meanings, and the meaning of a syntagm is a function of the meaning of the mor-phemes contained in it and of the pattern to which it belongs. From a small number of morphemes and a smaller number of patterns a very large number of sentences can be constructed; this is how we under-stand sentences that we have never heard before. (Cf. Bertrand Russell, An Inquiry into Meaning and

Truth 1940, pp. 11a, 34a, 238b, 306f, 386c–7). French deux-cents and cent-deux contain the same morphemes, but the pattern-meanings are different: since deux-cents means 'two hundred', the meaning of the pattern is 'multiplied by', and since cent-deux means 'one hundred and two', the meaning of its pattern is 'added to'. The meaning of a pattern is not determined simply by the order of the morphemes, because one pattern (as defined above) may have very different meanings—e.g. old men and women means either 'old men and old women' or 'women and old men'. It is important to realize that the meaning of a pattern is as arbitrary, as unmotivated as the meaning of a morpheme; the meaning of a syntagm on the other hand is motivated in that it is a function of the meanings of the morphemes and the patterns entering into it. Moreover, not every mathematically possible combination of morphemes occurs; there is the syntagm désireux but no eux-désir (190c). For these two reasons, although 'une unité telle que désireux se décompose en deux sous-unités (désir-eux),... ce ne sont pas deux parties indépendentes ajoutées simplement l'une à l'autre (désir + eux). C'est un produit, une combinaison de deux éléments solidaires, qui n'ont de valeur que par leur action réciproque dans une unité supérieure (désir × eux)' (176c; cf.182a).

20. As we have shown (§18), a fundamental property of linguistic signs is that they are systematic. Now, de Saussure does not hold that every linguistic fact fits into a system. He holds that, as we narrow our attention from language as a whole (langage) to that part of it which is a socially acquired and passive repository in the minds of native speakers (langue), we find that langue, thus defined, is a system. What de Saussure calls parole embraces the non-systematic elements of language. Precisely what is the difference between langue and parole, and why langue should engage the primary attention of the linguist, are points dealt with in §§30–2, 36, 37, 56.

De Saussure says, 'En déterminant...les éléments qu'elle manie, notre science remplirait sa tâche tout entière (154c). By continued and very clear implication, the elements of langue are of two kinds: signs, divided into morphemes and syntagms, and tranches de sonorité—phonemes and sequences of phonemes. In order to understand de Saussure's views about the properties and relations of phonemes, it is well to examine first his notions on the relations of signs.

21. In linguistics, 'comme en économie politique, on est en face de la notion de valeur; dans les deux sciences, il s'agit d'un système d'équivalences entre des choses d'ordres différents: dans l'une un travail et un salaire, dans l'autre un signifié et un signifiant' (115a; cf. 116b, 160a, and 164b). The linguistic analogue of economic value consists (158–60) in the relations of a sign (1) to its signifié, and (2) to other signs. (160a weighed against 159b and the diagram of 159c proves again the conclusion of §16 that in practice signe means for de Saussure 'signifiant qua signifiant.') Since value includes relations to other signs, it can change without either the sign itself changing or its relation to its signifié (166b, 179d), and different languages can have signs that have the same signifié but different values (160b–c).

Relations of a sign to other signs are again of two types (170–5): associative and syntagmatic. The relations of a sign to signs that may precede, follow or include it, and also to those included in it if it is a syntagm, are its syntagmatic relations. All these result from the fact that the signs constituting an utterance are arranged in a line; and it may be that de Saussure's insistence upon the linearity both of phonemes and of signs was for the sake of preserving the picture of language as articulated (§15). Of an entirely different type are the associative relations; a sign can recall other signs which are grammatically like it, or semantically affiliated with it, or even connected by nothing more than similarity of sound (e.g. enseignement, justement). 'Le rapport syntagmatique est in praesentia: il repose sur deux ou plusieurs termes également présents dans une série effective. Au contraire le rapport associatif unit des termes in absentia dans une série mnémonique virtuelle' (171). The two types of relation support each other (177–80); de Saussure's meaning, restated in modern terms, is that each syntagm (e.g. French défaire, Latin quadruplex) is capable of associatively recalling all the other syntagms that have the same pattern (e.g. Fr. décoller, déplacer,....; refaire, contrefaire), and that each morpheme is associatively connected with all the other signs which may replace it to form syntagms having the same pattern.

22. The want of detail in de Saussure's classification is deliberate; it is scarcely necessary to point out that a sign stands in much more intimate relations with some signs than with others. For example, there is the special kind of associative relation called by de Saussure (as also in his Mémoire of 1878, and by Baudouin de Courtenay as a borrowing therefrom) alternance (215–20; cf. §45). Again (174b–5) a sign stands in associative relations sometimes with a definite, sometimes with an indefinite number of other signs. But quite apart from this lack of detail, it would seem that there is no room in de Saussure's scheme for frequency relations, much emphasized nowadays. Perhaps he would have held that relative frequency pertains to parole, not to langue. But the bearing of frequency on linguistic change (§50) seems to oppose such an explanation.

23. The crux of de Saussure's theory, for the statement of which all the preceding exposition has been preparatory, is the role of relations in a system: Signs are constituted partly, and phonemes wholly, by their relations, that is by belonging to a system. (But cf. §53.) For them, to be is to be related.

A langue is a system of signs. Signs, therefore, are its elements. And yet, in some sense phonemes and their sequences are also elements (cf. §20. 27).

How so? 'Une suite de sons,' we are told in 144c, 'n'est linguistique que si elle est le support d'une idée; prise en elle-même, elle n'est plus que la matière d'une étude physiologique.' Ambiguous passage; for it might mean that a phonetic sequence is the object of linguistics only if it is a signifiant; or it might mean that only psychic sounds (phonemes) and their sequences (including signifiants) are linguistic because only they are supports of ideas: signifiants directly, and phonemes indirectly in that signifiants are built out of them. The former interpretation seems to be borne out by the context; yet cf. 180b: 'Un phonème joue par lui-même un rôle dans le système d'un état de langue.'

24. The important concept of opposition is treated by de Saussure in several passages:

(i) [le] signifiant linguistique ... n'est aucunement phonique, il est incorporel, constitué, non par sa substance matérielle, mais uniquement par les différences qui séparent son image acoustique de toutes les autres (164b; cf. 163a-b).

(ii) Ce principe est si essentiel qu'il s'applique à tous les éléments matériels de la langue, y compris les phonèmes.... Ce qui les caractérise, ce n'est pas, comme on pourrait le croire, leur qualité propre et positive, mais simplement le fait qu'ils ne se confondent pas entre eux. Les phonèmes sont avant tout des entités oppositives, relatives et négatives (164c).

(iii) The same is true of signifiés considered in themselves: concepts 'sont purement différentiels, définis non pas positivement par leur contenu, mais négativement par leurs rapports avec les autres termes du système. Leur plus exacte caractéristique est d'être ce que les autres ne sont pas' (162a). Trubetzkoy, La phonologie actuelle, Jour. de Psych. 1933, 233 fn 1, quotes this passage as though it applies to phonemes, but since de Saussure's view of signifiants and signifiés was the same in this respect, no misrepresentation results.

(iv) Tout ce qui précède revient à dire que dans la langue il n'y a que des différences ... sans termes positifs' (166b).

(v) But this is true only of signifiés and signifiants considered apart from each other; 'bien que le signifié et le signifiant soient, chacun pris à part, purement différentiels et négatifs, leur combinaison est un fait positif; c'est même la seule espèce de faits que comporte la langue, puisque le propre de l'institution linguistique est justement de maintenir le parallélisme entre ces deux ordres de différences' (166-7; cf. 146c, cited in §15).

(vi) In short, 'Dès que l'on compare entre eux les signes—termes positifs—on ne peut plus parler de différence; l'expression serait impropre ...; deux signes ... ne sont pas différents, ils sont seulement distincts. Entre eux il n'y a qu'opposition' (167c).

25. Let us try to find out exactly what de Saussure means by opposition. 'En grec éphēn est un imparfait et éstēn un aoriste, bien qu'ils soient formés

de façon identique; c'est que le premier appartient au système de l'indicatif présent phēmi 'je dis,' tandis qu'il n'y a point de présent *stēmí; or c'est justement le rapport phēmi-éphēn qui correspond au rapport entre le présent et l'imparfait (cf. deíknūmi -edeíknūn), etc. Ces signes agissent donc, non par leur valeur intrinsèque, mais par leur position relative' (163-4). To quote an example from Bally, Ferdinand de Saussure et l'état actuel des études linguistiques (Lecture delivered 27 October 1913), p. 14: 'Dans chevaux la finale -ô ... a la valeur d'un pluriel parce que notre esprit l'oppose au signe -al du singulier cheval, tandis que dans tuyaux [phonemically the same as the singular tuyau] le même son -ô est dépourvu de valeur, parce que notre esprit ne l'oppose à rien.' Similarly, in the Cours, 'Le fait de synchronie est toujours significatif; il fait toujours appel à deux termes simultanés; ce n'est pas Gäste qui exprime le pluriel, mais l'opposition Gast:Gäste' (122b). And so, since 'la valeur de l'un [terme] ne résulte que de la présence simultanée des autres' (159c)

ce qu'on appelle communément un "fait de grammaire' répond en dernière analyse à la définition de l'unité car il exprime toujours une opposition de termes; seulement cette opposition se trouve être particulièrement significative, par exemple la formation du pluriel allemand du type Nacht: Nächte. Chacun des termes mis en présence dans le fait grammatical (le singulier sans umlaut et sans e final, opposé au pluriel avec umlaut et -e) est constitué lui-même par tout un jeu d'oppositions au sein du système; pris isolément, ni Nacht ni Nächte ne sont rien... Cela est si vrai qu'on pourrait fort bien aborder le problème des unités en commençant par les faits de grammaire. Posant une opposition telle que Nacht : Nächte, on se demanderait quelles sont les unités mises en jeu dans cette opposition (168b).

The oppositions of a sign are its relations, syntagmatic and associative, with other signs (180b, apropos of phonemes), and are therefore part of its value.

De Saussure goes so far as to say (vii) 'les caractères de l'unité se confondent avec l'unité elle-même. Dans la langue, comme dans tout système sémiologique, ce qui distingue un signe, voilà tout ce qui le constitue. C'est la différence qui fait le caractère, comme elle fait la valeur et l'unité' (168a).

26. We have now come to the genuine crux of de Saussure's theory.

Passage i tells us that signifiants are characterized by their differences. Now what is the difference between, say, English hit and hits, hid, hot, bit, etc.? That they are composed of different phonemes, no doubt. But ii tells us that phonemes are characterized—not by their differences—but by the fact that they are different, 'le fait qu'ils ne se confondent entre eux.' If phonemes are characterized only by being different, it does not matter how they differ; pushed to its extreme this means that only the number of distinct phonemes matters. If any or all of the

elements should be respectively replaced by materially different ones, provided that the same number be preserved, the system would be the same (43b, 153d-4). There could not be two distinct systems of phonemes whose number of phonemes was the same, for if so they could differ only in some property or relation of the phonemes other than that of being different, which violates the hypothesis. On the other hand if the phonemes are characterized by their differences, then they are like signifiants as described in passage i. It is yet a third thing to say as de Saussure says of signs (vii) that they are characterized by those of their properties that are distinct, i.e. not common to all the signs, phonemes, or whatever one makes the statement about. A distinctive feature or property, a difference or distinction, and the property of being different or distinct are all three entirely distinct properties, and it is far from hyper-subtle to say this. It is not clear, even from the larger context of the whole Cours, whether ii is meant simply as a restatement of i (a rather careless one, if so), or whether it is intended to say something different about phonemes than has been said about signifiants. In 163b, we read (viii) that 'puisqu'il n'y a point d'image vocale qui réponde plus qu'une autre à ce qu'elle est chargée de dire, il est évident, même a priori, que jamais un fragment de langue ne pourra être fondé, en dernière analyse, sur autre chose que sur sa non-coïncidence avec le reste. Arbitraire et différentiel sont deux qualités corrélatives.' This lends color to the view that ii is meant to apply to signifiants as well as to phonemes, and that i is simply a preliminary version of it. The next paragraph says: 'la conscience ... n'aperçoit perpétuellement que la différence a/b' (163c); but the following example and comment show that 'la différence a/b' means 'the fact that a differs from b.' The total impression conveyed by all the statements is that de Saussure means to say that phonemes, signifiants and signifiés are all alike in being characterized not by their differential properties—nor by their differences—, but by their being different; but that to be different is only part of the characterization of signs. This is what he means in saying that signs are distinct, not merely different.

27. De Saussure does not consistently maintain the terminological separation between difference and distinction, nor his restriction of opposition to signs (to the exclusion of phonemes and signifiants); phonemes as well as signs enter into oppositions, and of the same two types:

Un phonème joue par lui-même un rôle dans le système d'un état de langue. Si par exemple en grec m, p, t, etc., ne peuvent jamais figurer à la fin d'un mot, cela revient à dire que leur présence ou leur absence à telle place compte dans la structure du mot et dans celle de la phrase. [For other anticipations of Trubetzkoy's concept of Grenzsignale, cf. 256c, 316b.] Or dans tous les cas de ce genre, le son isolé, comme toutes les autres unités, sera choisi à la suite d'une opposition mentale double: ainsi dans la groupe imaginaire anma, le son m est en opposition syntagmatique avec ceux qui l'entourent et en opposition associative avec tous ceux que l'esprit peut suggérer, soit anma (180b).

Let the reader thoroughly absorb this passage, for it is all that de Saussure has to say about the system of phonemes. And with this quotation we have concluded our exposition of de Saussure's direct contribution to phonemics. His greater contribution is indirect, his linguistic theory in general and his concept of synchronic systems in particular. All he has to say about phonemes is that what is true of morphemes is true mutatis mutandis of them also; but he does not indicate what the mutanda are. From the standpoint of present-day phonemics, we can see the analogues: the syntagmatic relations of phonemes are what we call their positions of occurrence, and the phonemes with which a given phoneme is associatively related are the phonemes involved in the same morphophonemes as it, and the phonemes which occur in the same position; also those which undergo similar morphophonemic changes. But of all this there is no hint in de Saussure.

28. What are the relations between the two fundamental properties of signs, their arbitrary and their systematic nature (see §18)?

'Une langue constitue un système. ... C'est le côté par lequel elle n'est pas complètement arbitraire et où il règne une raison relative' (107c, cf. 180-4, esp. 182b). We have discussed this contrast between the absolutely arbitrary and the relatively motivated in §19.

A sentence of 157c, 'Les valeurs restent entièrement relatives, et voilà pourquoi le lien de l'idée et du son est radicalement arbitraire,' makes it sound as if arbitrariness resulted from the nature of value; but this contravenes de Saussure's whole teaching, and is merely careless wording. His basic teaching may be stated as follows: (1) Signs stand in systematic relations to one another. (2) Simple signs are completely arbitrary; all that matters is that they be distinct from one another. (3) Therefore, only the relations of signs, i.e. their values, are relevant to the system; the systematic (relational) properties and the non-relational properties are independent of each other, they do not involve or affect each other. Signs are distinct, not merely different; this means, we take it, that not only their relations to each other but their relations to their respective signifiés are relevant and in fact essential. And all that is relevant to signifiants and to the phonemes of which they are composed is that they are different from each other. This follows from the arbitrariness of the sign (cf. 165e).

This framework of ideas is strikingly similar to the doctrine known in anthropology as functionalism, to which de Saussure comes closest in his discussion

(150-4) of synchronic identity: two materially different entities are the same as far as the system goes if and only if they have the same value (154a), that is, are characterized by the same relations.

29. By the comparative method linguists have reconstructed large parts of the vocabulary of Proto-Indo-European. This method lets us ascertain the number of phonetic elements and their combinations. Its validity, according to de Saussure, is not contingent upon our demonstration of the precise or even the rough phonetic properties, articulatory or acoustic, of these elements, though we are often in a position to do so; it is sufficient to establish the number and distinctness of these elements (302-3).

Offhand one might think that this example shows the relevance of phonemics to historical linguistics. But actually it is not part of history in the strict sense, according to de Saussure's conception. For, though no doubt linguists have ascribed to PIE features that were not in fact contemporaneous, so that our reconstruction of it does not represent a language spoken by one particular community in one particular year or even decade or century, still PIE is roughly and in the main a single language-state.

And in fact, de Saussure does not apply phonemics to problems of historical change. This is no accidentally omitted detail; it reflects his general doctrine of linguistic change: every linguistic change is isolated. A system does not engender changes within itself.

By Sapir, Bloomfield, and the Prague School, phonemics is thought to be just as relevant to problems of linguistic change as to the descriptions of languages in their momentary states. It is part of our job, therefore, to show why de Saussure holds the opposite view. This requires that we penetrate still more deeply into the groundwork of his system of thought.

Langue and Parole

30. Language (le langage), like any social phenomenon, is subject to perpetual change, and so may be analyzed at any one time into an inherited or institutional element and an element of innovation. The institutional element de Saussure calls la langue, and the innovational element la parole; by definition the two together exhaust le langage (36a, 37c, 112c).

31. Langue is (30f, 32b; cf. §18) a deposit of signs that each individual has received from other members of the same speech-community, l'ensemble des habitudes linguistiques qui permettent à un sujet de comprendre et de se faire comprendre (112c; cf 100f); in other words, it is a passively accumulated repository in relation to which each person is a hearer, not a speaker (30f, 31d). Parole, by contrast, is both active and individual (30-1); it consists of particular speech-utterances. It is (24, 30e) le côté individuel as opposed to le côté social of language. A sentence is the typical unit of parole (148c, 172c), for 'le propre de la parole, c'est la liberté des combinaisons.'

More comprehensively stated (38c; 30g-1a), 'la parole ... est la somme de ce que les gens disent, et elle comprend: a) des combinaisons individuelles, dépendant de la volonté de ceux qui parlent, b) des actes de phonation également volontaires, nécessaires pour l'exécution de ces combinaisons.'

32. Langue, though described as a repository, is not to be thought of simply as a pile of words (cf. §18); the previous sections have shown clearly how it is essentially a system, to which belong not only the signs with their values but what we defined as patterns. Native speakers (excluding scholars) are ignorant of the history of their own language, which means that the history is irrelevant to the system as they know it: 'La parole n'opère jamais que sur un état de langue, et les changements qui interviennent entre les états n'y ont eux-mêmes aucune place' (127a). And 'la première chose qui frappe quand on étudie les faits de langue, c'est que pour le sujet parlant leur succession dans le temps est inexistante: il est devant un état' (117c). It follows (ibid.) that 'aussi le linguiste qui veut comprendre cet état doit-il faire table rase de tout ce qui l'a produit.' It is the business of the linguist, in describing a system, to describe just those relations of which the native speakers are aware (128c, 136a, 140c, 189b, 251b-2), though in precision and explicitness the linguist's comprehension of the system will far exceed the speaker's. There are syntagms of whose analysis the speakers are doubtful (234a, 258c), and even signs such that the speakers are doubtful whether to regard them as syntagms or as simple signs (181c). 'Autre chose est de sentir ce jeu rapide et délicat des unités, autre chose d'en rendre compte par une analyse méthodique' (148b; cf. 106b, d, 107c, 256b). This methodical analysis is grammar (141).

33. The point of view so far described is what de Saussure calls (117, 12c) synchronic linguistics, whose essence is that it considers langues one by one. In discussing it, de Saussure speaks as though it were opposed only to historical or diachronic linguistics, but actually the Cours recognizes two or possibly three non-synchronic studies, each of which considers langues two or more at a time.

34. The first such study is diachronic linguistics, which differs from the synchronic branch in taking change into account. But an immediate elucidation is needed. On the one hand, synchronic lingustics abstracts from time and change not by treating facts of different times as though they were simultaneous — doing so has been a common mistake (137b-8, 202a), sometimes deliberate (251a, 252b); but by considering a langue during a span of time too short to show any appreciable change (142b). In short, synchronic linguistics describes language-states (117a). And on the other hand, diachronic linguistics does not directly capture the process of change. De Saussure seems to have adopted the physicists' conception that change may be described as a succession of states (117a only

apparently contradicts this); diachronic linguistics, taking as its data synchronic descriptions of different states of cognate languages, infers the changes that led from the earlier states to the later ones (128a, 140d). To do this one must have ascertained the diachronic identities (249; cf. 853)—e.g. that Latin passum is diachronically identical with French pas. Diachronic identity does not imply synchronic identity, nor vice versa; pas 'step' and pas 'not' are diachronically but not synchronically identical (129b, 150b, 250a); whereas décrépi < Latin de + crispus and décrépit < Latin decrepitus are synchronically identical (119d; 160c; 167b,136a). Thus diachronic linguistics arrives inferentially at the phenomena which are its special province, viz. events (117a, 129b).

35. Diachronic linguistics is achieved by two different techniques (128c, 291–4), according to the character of the data on which it operates. The prospective method requires as data records of two or more states of the same language, that is, such that each state is either an ancestor or a descendant of each other state; this is the method mainly used in Romance linguistics. The regressive (better known as the comparative) method is primarily inferential, and requires—to continue the metaphor of family-terms—that they be brothers, cousins, uncles and nephews etc. of each other; in other words, that they be only collaterally, not linearly, related. From these data it infers so far as possible the state which was the last common ancestor of all these known states. In practice, the data are usually such as to admit and require the application of both prospective and retrospective methods.

36. The langue–parole distinction entails (37c, 38e) a corresponding dichotomy of linguistics (cf. 8837, 56). Of the two branches, linguistics of langue is primary, and the main object of the Cours (39b, 317c); as we have seen, it is in turn bifurcated into synchronic and diachronic linguistics. Now by definition, langue and parole stand in a chicken-and-egg relation to each other. On the one hand, parole is based on langue (227a–b); we might restate de Saussure's idea in Aristotelian terms and say that langue is the active potentiality of producing parole. And on the other hand 'c'est la parole qui fait évoluer la langue' (37d; cf. 127a, 138c–9, 231a). More specifically, 'un fait d'évolution est toujours précédé d'un fait, ou plutôt d'une multitude de faits similaires dans la sphère de la parole; cela n'infirme en rien la distinction établie ci-dessus, elle s'en trouve même confirmée, puisque dans l'histoire de toute innovation on rencontre toujours deux moments distincts: 1° celui où elle surgit chez les individus; 2° celui où elle est devenue un fait de langue, identique extérieurement, mais adopté par la collectivité' (139a). Now since parole is the source, the situs of linguistic change, how does linguistics of parole differ from diachronic linguistics (of langue)? Are they not the same province under different names? De Saussure does not anticipate this question, but the

answer is clearly implied. There is no necessary passage from the first of the two moments mentioned above to the second; 'toutes les innovations de la parole n'ont pas le même succès' (138c, cf. 232b). Diachronic linguistics does not take parole as its subject matter; by a comparison of earlier and later states it ascertains the changes from one to the other; and though these changes arose in parole, its concern is with the changes and not with their source. We have already (884,6) pointed out how historical phonetics (which is part of diachronic linguistics) is wholly separate from the study of 'la parole y compris la phonation' (37c), which includes phonetics.

37. From the characterization of diachronic linguistics, it is clear that it rests upon synchronic descriptions (128a)—a doctrine which is the polar reversal of Hermann Paul.[6] And yet diachronic and synchronic linguistics are two radically separate enterprises.

According to de Saussure, synchronic linguistics is grammar (cf. 832 end), and (as we shall see in 8843, 44), diachronic linguistics is historical phonetics (137a, 194c, 209c, 226c, 228a, 317a). 'Qui dit grammatical dit synchronique et significatif, et comme aucun système n'est à cheval sur plusieurs époques à la fois [cf. 140d, 122b], il n'y a pour nous de "grammair historique"...' (185b). What, then, says Jespersen (Linguistica 109–15; originally written 1916) have people like myself been writing about all these years, if not historical grammar? De Saussure has anticipated the question: 'Il faut s'en souvenir pour ne pas affirmer à la légère qu'on fait de la grammaire historique quand, en réalité, on se meut successivement dans la domaine diachronique, en étudiant le changement phonétique, et dans le domaine synchronique, en examinant les conséquences qui en découlent' (195d; cf. 862).

38. So much for the delineation of diachronic linguistics. There is a second non-synchronic study which may belong with it, and that is dialect-geography. De Saussure distinguishes (40–3) between internal and external linguistics, by the latter term understanding in particular (40a, 41d, cf. Bally, L'état actuel 21b) the type of studies upon 'words and things' undertaken by Meringer. The significance of the distinction is evidently methodological: 'La séparation des deux points de vue s'impose... La meilleure preuve en est que chacun d'eux crée une méthode distincte' (42–3). The following formulation, we think, expresses de Saussure's basic thought more incisively than his own characterizations do: That is internal which lets systems be studied autonomously, whether one by one or two or more at a time, without reference to anything except other linguistic systems; in short, internal linguistics of langue is pure linguistics of langue (cf. 143a).

[6] 'Es ist eingewendet, dass es noch eine andere wissenschaftliche Betrachtung der Sprache gäbe, als die geschichtliche. Ich muss das in Abrede stellen' (Prinzipien 3te Aufl., Einl. 810).

Now de Saussure relegates dialect geography to external linguistics (41c, 261a), presumably on the ground that it studies correlations between langues and something else. However, could we not consider that dialect geography is the spatial analogue of diachronic linguistics in that it considers contemporaneous cognate systems as they are arrayed in space rather than in time? There would be two significant differences: the array would have to be two-dimensional rather than one-dimensional (because isoglosses cross over each other), and there would be no direction to the array—nothing corresponding to the earlier and later of time. Of two contemporaneous dialects, one could not be singled out as cause and the other as effect. Still, inter-dialect identities could be established; this is done in phonemics by Daniel Jones's notion of diaphone. It is true that dialect geography as ordinarily conceived includes more than the pure comparison of the spatial relations of linguistic states; these other topics are truly external and would have to be separated in order that dialect geography might be regarded as part of the internal linguistics of langue. There would of course be combinations of the dialectal and the diachronic mode of comparison. We are content to have suggested this viewpoint without insisting upon it.

39. The third non-synchronic study of language is the comparison of two or more non-cognate languages (263-4; cf. 183-4), a branch of study to which de Saussure barely alludes.

Linguistic Change

40. According to the neo-grammarian picture, linguistic change consists of (1) sound-change, (2) analogy, (3) borrowing, and (4) miscellaneous minor processes, such as coinage, blending, folk-etymology, syncope, obsolescence (or, as we would put it today in more general terms, change of frequency), semantic change, syntactic change (distribution of morphemes), and perhaps sundry others. De Saussure's discussion leaves out of account the third and fourth groups of changes except for brief examples and adventitious chapters, and states (194b) that linguistic change is, in the main, phonetic change. Moreover (198a), that every linguistic change is isolated.

By the latter statement de Saussure appears to mean two things: (1) linguistic changes are not general, and (2) they are not systematic.

41. The Cours says:

Les faits diachroniques sont particuliers; le déplacement d'un système se fait sous l'action d'événements qui non seulement lui sont étrangers..., mais qui sont isolés et ne forment pas système entre eux' (134b). [This is as true when the change is semantic as when it is phonetic.] A une certaine époque presque toutes les formes de l'ancien cas sujet ont disparu en français; n'y a-t-il pas là un ensemble de faits obéissant à la même loi? Non, car tous ne sont que les manifestations multiples d'un seul et même

fait isolé. C'est la notion particulière de cas sujet qui à été atteinte et sa disparition a entraîné naturellement celle de toute une série de formes (132c).

Clearly, insofar as it applies to phonetic change, this is simply the neo-grammarian proposition 'sound-changes have no exceptions.'

When a certain phoneme or cluster of phonemes in a certain environment undergoes a certain change no matter in what words it is contained, it is easy to say that the change in the words is secondary, stemming from the primary change of the phoneme. When all the words having a certain meaning become obsolete, it is easy to say that it is primarily the meaning and only secondarily the individual words which have perished. But certain apparent embarrassments come to mind.

The Cours (130) mentions four phonetic laws concerning the passage from Indo-European to Greek: (1) voiced aspirates become voiceless aspirates; (2) initial prevocalic s becomes h; (3) final m becomes n; (4) final stops are dropped. Now (2) and (3) concern one phoneme each; but (1) concerns bh, dh, ĝh, gh, gᵂh, and (4) concerns p, t, k̂ and q. Are not then (1) and (4) general? De Saussure's only answer seems to squarely avoid the issue (133b; cf. 248c):

La vraie question est de savoir si les changements phonétiques atteignent les mots ou seulement les sons; la réponse n'est pas douteuse: dans néphos, méthu, ánkhō, etc. [instances of (1)], c'est un certain phonème, une sonore aspirée indo-européenne qui se change en sourde aspirée, c'est l's initial du grec primitif qui se change en h, etc. et chacun de ces faits est isolé, indépendant des autres événements du même ordre, indépendant aussi des mots où il se produit.

But (1) and (4) are not isolated in the same sense as (2) and (3), since each of them concerns not one phoneme but a class—of five and of four phonemes respectively. One could of course go a step further and, seeking a property common to all the voiced aspirates or all the stops, say it is this which has changed. This obvious suggestion is made by the editors, 133 fn, and seems to be implicit in 203c also. Another response, in the vein of the dismissal (102) of onomatopy, would be that even though whole classes of phonemes sometimes undergo a common change, such cases are the exceptions, or at least are not the only kind, and that it is the existence of changes like (2) and (3), rather than like (1) and (4), that is noteworthy. But de Saussure's own answer is right in the quotation above. He would not have hesitated to admit that (1) and (4) are general in a sense —only not in the sense which he had in mind. In his sense, to ask whether phonetic changes are general or particular is to ask whether they 'atteignent les mots ou seulement les sons.' Phonetic changes are specific in that 'le déplacement d'un système se fait sous l'action d'événements qui...lui sont étrangers.' (134b; cf. 133c). The point would have been much