

H. PENZL: Lautsystem und Lautwandel in den althochdeutschen Dialekten. Max Hueber, München 1971. 193 pp.

This book is an important landmark in the history of Old High German scholarship. Our usual handbooks of OHG are still written in the neogrammarian tradition of nearly a century ago. Scribal spellings are often taken very literally, almost as if the scribes had been trained phoneticians; letters are interpreted as representing sounds (rather than as representing phonemes – which in turn can be represented phonetically by sounds, graphically by letters); and the typical ‘Lautlehre’ is atomistic and historical, consisting of a presentation of individual sounds arranged according to their historical sources. The reader looks in vain for answers to such simple and obvious questions as: How many vowels and consonants were there in this or that dialect at such and such a time and place? During recent decades there have been many partial attempts – some of the best of them written by PENZL himself – to reinterpret the scribal spellings of OHG documents from a structuralist point of view. Under this view, spellings represent phonemes (perhaps also, rarely, allophones), and the ‘Lautlehre’ consists of two distinct though related parts: first, a synchronic analysis of spellings so as to reveal the ‘Lautsystem’ of each document, including phonemes, allophones, and as much phonetic detail as possible; and, second, a diachronic analysis of these various systems so as to reveal the ‘Lautwandel’ from one system to another.

PENZL’s book is the first attempt to give a comprehensive presentation of this ‘structuralist’ point of view. His work falls into three main parts. Chapters 1–5 are devoted to a discussion of theory and methodology – in particular, to the techniques of analyzing the spellings of written documents in such a way as to reveal the phonemic and phonetic systems which they reflect. Chapters 6–10 deal with ‘Lautsystem’: the vowel and consonant systems of five sample OHG documents, namely the *Exhortatio ad plebem christianum*, *Isidor*, *Otfrid* (plus, for consonants, *Tatian*), *Notker*, and *Otlohs Gebet*. And chapters 11–18 discuss ‘Lautwandel’ during the OHG period: *i*-umlaut, the OHG monophthongization, the OHG diphthongization, the development of early OHG *eo*, the vowels of unstressed syllables, the shift of

tenues (pre-OHG *p t k*), the shift of mediae (pre-OHG *b d g*), and the development of early OHG *þ*. This main body of the book is followed by three appendices: the complete text of the *Exhortatio* and samples of the other four texts, tables of sound change (short vowels, long vowels and diphthongs, obstruents), and an extensive bibliography. The book concludes with an index.

In chapters 1–5, dealing with the phonemic, allophonic, and phonetic interpretation of written symbols, PENZL spells out in detail the assumptions which most of us make more or less intuitively (and perhaps even unconsciously) in interpreting written documents. We have available to us five different types of data. The most important are of course (1) the scribal spellings themselves; but these data can often be supplemented by those of (2) orthoepy (the statements of grammarians and writers; for OHG we have only Otfrid's letter to Archbishop Liutbert), (3) metrics (e.g., vowel and consonant length, alliteration, rhyme, assonance), (4) diachrony (sound changes often provide valuable information on sound values), and (5) loans from other languages (which often give useful phonetic information, though we must carefully distinguish sound imitation from sound substitution).

In examining any given text, we begin with a 'homographic analysis'. We first make an inventory of the symbols used; we then note those symbols which stand in contrastive distribution ('Schreibungsopposition'), those which are in free variation ('direkte Schreibungsvariation'), and those which are in complementary distribution ('direkter Schreibungswechsel'). We then proceed to a 'diagraphic analysis'. We compare the spellings we have found with those of earlier stages ('Prägraphien'), those of contemporary stages ('Heterographien'), and those of later stages ('Postgraphien'). This leads us to examples of indirect free variation ('indirekte Schreibungsvariation', e.g. *ai* in one document vs. *ei* in another document), of indirect complementary distribution ('indirekter Schreibungswechsel', e.g. the *þf* of other documents written in Notker initially as *f*-, medially as *-þf*-), as well as to the merger of spellings ('Schreibungszusammenfall') and the overlapping of spellings ('Zeichenüberschneidung').

Chapters 6–10, in which PENZL presents the vowel and consonant systems of five sample OHG texts, strike me as the least satisfactory part of his book. Some of my objections are quite minor. For example, in displaying phonemic vowel systems PENZL separates diphthongs

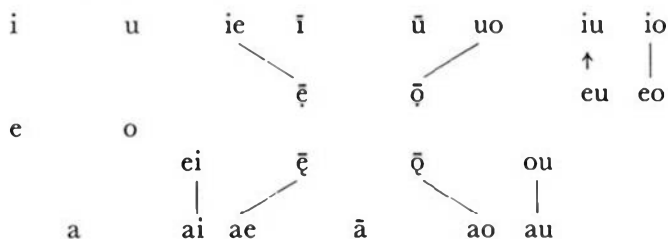
from monophthongs, but groups short and long monophthongs together. I believe that this presentation would be clearer to the eye if he grouped each of these three classes of vowels separately: short vowels, long vowels, and diphthongs. In addition, at many points PENZL presents phonetic data with an assurance that seems to me questionable. In describing the vowel phonemes of the Isidor translation, for example, he states: 'Die Langvokale /ī ē ū ō ū̄ ȫ/ [examples] unterscheiden sich von den entsprechenden Kurzvokalen /i e u o ü ö/ [examples] nicht nur durch die Quantität, sondern auch durch etwas höhere Zungenstellung und größere Gespanntheit' (p. 66). This may well have been true, but what is the evidence for it? Or, in discussing the consonants of Isidor, PENZL writes: '/k/ ist stimmlose Fortis, vielleicht wie auch [p] [t] aspiriert, keineswegs natürlich Affrikata' (p. 73). But how can we be sure that [p] and [t] were aspirated? And can we really say that /k/ was 'keineswegs natürlich Affrikata'? What is the evidence for such a very positive statement?

More troublesome are those instances where PENZL uses a phonemic theory which, I believe, is unacceptable, and which in any case is ill suited to the interpretation of OHG phonology. An example is his ambivalent treatment of diphthongs. On the one hand, he handles them everywhere as phonological units of some sort; on the other hand, he analyzes them as sequences of two phonemes; he must then try to reconcile these two conflicting views by describing them as 'eine enge Verbindung von zwei Phonemen' (p. 132). The interpretation of diphthongs as sequences of phonemes, rather than as unit phonemes, has a number of unfortunate results. First, it forces the analyst to consider vowels as *either* monophthongs *or* diphthongs, and does not permit him to analyze them as phonemes which can be realized phonetically by an infinite series of sounds ranging from clearly monophthongal to clearly diphthongal. An example is the 'direct variation' of *ao* and *o* in the *Exhortatio*: *faon* beside *foun*, *fraono* beside *frono*. PENZL's phonemic theory forces him to analyze this as either the phoneme sequence /ao/ or the phoneme /ō̄/; he chooses the latter; he is unable to assume a phoneme /ao ~ ō̄/ which could fluctuate between diphthongal and monophthongal pronunciation. Second, it forces the analyst to interpret diphthongs as sequences of particular vowels which have already been established in other ways, and does not permit him of analyze them as glides between vowel types which may or may not exist outside of diphthongs. The *Exhortatio* again provides an example.

'Indirect variation' leads us to expect the same diphthong in both *eigut* and *maistron*. PENZL's phonemic theory forces him to analyze this as either /ei/ or /ai/; he chooses the former; he is unable to assume a phoneme /ai ~ ei/ in which the initial element perhaps varied all the way from [a] through [æ] to [e].

The interpretation of diphthongs as sequences of phonemes, rather than as unit phonemes, is also in conflict with PENZL's assumption that all sound change (as opposed to sound substitution) is gradual: 'Wir sehen allen Lautwandel als allmählich und den Sprechern unbewußt an' (p. 23). If we accept this view, then we cannot at the same time assume that long vowels suddenly become sequences of vowels (e.g. that, through the OHG diphthongization, long /ē/ and /ō/ suddenly became the sequences /ie/ and /uo/), or that sequences of vowels suddenly become long vowels (e.g. that, through the OHG monophthongization, the sequences /ai/ and /au/ suddenly became the long vowels /ē/ and /ō/). Both changes, under this assumption, must be gradual; and they can be gradual only if we interpret both long vowels and diphthongs as unit phonemes.

A final unfortunate result of PENZL's analysis of diphthongs as vowel sequences is that it obscures the essential unity of all OHG vowel systems – at least until certain later mergers began to take place. Disregarding umlaut (which would make our diagram too complicated), we can display this system as follows:



Through the OHG diphthongization, the phonemes noted here as /ē ~ ie/ and /ō ~ uo/ gradually changed in pronunciation from monophthongs ([ē] and [ō]) in early OHG to diphthongs (ultimately probably [iə] and [uə]) in later OHG. (Though we cannot know exact phonetic values, spellings such as *e*, *ee*, *ea*, *ia*, *ie* and *o*, *oo*, *oa*, *ua*, *uo* seem to show the scribes struggling to express these changing sounds in writing.) Through the OHG monophthongization, the phonemes noted here as /ae ~ ē/ and /ao ~ ō/ gradually changed from diphthongs

to monophthongs. And through still another change the initial elements of all remaining diphthongs (/ai ∼ ei/, /au ∼ ou/, /eo ∼ io/, /eu/) gradually became higher. In the case of /eu/, this caused merger with /iu/. A later merger, not indicated here, was that of /io/ and /ie/ – probably as [iə].

This view of the OHG vowel system – the only possible view if we accept the assumption that sound change is gradual – removes a number of difficulties that PENZL finds in his analysis. We need not worry about such examples of ‘direct variation’ as the Isidor spellings *boohhum* and *buohhum*. These may represent two different attempts to symbolize slight diphthongization; or they may represent a fluctuation between monophthongal and diphthongal pronunciations of one and the same phoneme. We also need not worry about the ‘asymmetry’ (PENZL p. 67) of the Isidor spellings *ea* and *uo*, instead of symmetrical *ea* and *oa*, or *ia* and *ua*, or *ie* and *uo*. These are simply scribal attempts to express certain degrees of diphthongization which may well have been entirely symmetrical, despite the spellings. We are certainly not justified in analyzing them, with PENZL, as the very specific vowel sequences /ea/ and /uo/.

PENZL’s analysis of the OHG consonants strikes me as unsatisfactory in various aspects of its treatment of the obstruents (stops, aspirates and/or affricates, fricatives). In theory, at least, he accepts the fact that ‘distribution’ is an important part of phonemic systems, as is indicated by his statement on page 19: ‘Zur Beschreibung des Systems gehört auch die Angabe der Kombinationsfähigkeit ...’ In practice, however, he disregards distribution in his diagrams of consonant systems and presents only phonemic inventories arranged according to articulatory features. The following, for example, is his diagram of the obstruent system of the Isidor translation (p. 74):

		Lippenlaute	Zahnlaute	Gaumenlaute
Reibelaute	Lenis	v	ɸ s	h
	Fortis	f	z	x
Affrikaten		pf	tz	
Verschlußlaute	Fortis	p	t	k
	Lenis	b	d	g

This disregard of distribution is particularly unfortunate for OHG, since all stages of the language show more oppositions in medial

position than in either initial or final position. We can show these distributional differences (and, at the same time, slightly revise PENZL's phonemic analysis) as follows:

b-	-b-	-b	d-	-d-	-d	g-	-g-	-g
	-bb-			(-dd-)			-gg-	
			tr-	-ttr-				
pf-	-pf-	-pf	tz-	-tz-	-tz	kh-	-kh-	-kh
			-	-zz-	-z			
f-	-f-	-f	þ-	-þ-	-þ	h-	-h-	-h
	-ff-			-þþ-			-hh-	
			s-	-s-	-s			
				-ss-				

This diagram of the early OHG obstruent system (before the change of [p] to [d]), based largely on Isidor, provides the following distributional information: (1) The labials and velars show a three-way opposition initially and finally: stop ≠ affricate/aspirate ≠ fricative; but they show a five-way opposition medially: short lenis stop ≠ long fortis stop ≠ affricate/aspirate ≠ short lenis fricative ≠ long fortis fricative. (2) The dentals show still further oppositions, namely five initially and finally, and eight or nine medially. (a) Because pre-OHG /t/ before /r/ was not 'shifted', we find in Isidor the opposition *dr-* ≠ *tr-* in *dribit*, *triuuua*. PENZL notes this opposition on page 63, but does not mention the fact that it is unique to Isidor. Later on *dr-* and *tr-* merged, e.g. as *dr-* in Otfrid and as *tr-* in Tatian. (b) Medial /-ttr-/ was also not 'shifted', and in earliest OHG this unshifted /-tt-/ was perhaps opposed to /-dd-/. By the time of Isidor, however, the two had apparently merged: we find *tt* written not only in unshifted *hluttror* (< pre-OHG /-tt-/) but also in *milleru* (< pre-OHG /-dd-/). (c) Because 'shifted' pre-OHG /-t- -t/ did not merge with any already existing fricative (as shifted /-p- -p/ merged with /-ff- -f/ and shifted /-k- -k/ merged with /-hh- -h/), we find in the OHG dentals the new fricative /-zz- -z/, cf. Isidor *uazssar*, *dhazs*. (d) OHG /s- -s- -s/ is from pre-OHG /s/; OHG /-ss-/ is from pre-OHG /-ss-/.

PENZL's analysis of the OHG stops seems to me questionable in its use of the features 'lenis' and 'fortis'. If I understand him correctly, he assumes that all OHG dialects had two sets of stops: lenis /b d g/

< pre-OHG /b d g/, and fortis /p t k/ < pre-OHG /p t k/ where these remained 'unshifted' in the clusters /sp st sk ft ht/. Here again the matter of distribution must be considered. If OHG [p t k] occurred only after fricatives and OHG [b d g] occurred only in other positions, then they were clearly in complementary distribution and constituted only a single set of stops – which, like the scribes, we can write either as /b d g/ or as /p t k/. Unless we find [b d g] and [p t k] in contrastive distribution, we cannot assume an opposition lenis ≠ fortis. PENZL attempts to demonstrate such a contrastive distribution by citing, from Tatian, *p*– in the Latin loanwords *postul*, *predigon*, and *mp* in the Latin loanword *tempal* (p. 91). These spellings, however, provide doubtful evidence; they may be merely imitations of Latin spellings. As PENZL himself remarks on page 29, OHG speakers probably pronounced Latin with the sounds of their native dialects – just as do modern German speakers. It therefore seems more likely that the Tatian scribes used in *postul*, *predigon*, *tempal* the same labial stop that they also used in such native words as *boum*, *brot*, *simbales*. Only in the dentals, after the change of early [p] to [d] and of early [d] to [t], can we assume a lenis ≠ fortis opposition: lenis /d/ in *quedan* etc. but fortis /t/ in *tretan* etc. If there were any 'fortis' labials and velars in the Tatian, they can only have been the –bb– of *sibba* etc. and the –gg– of *lugge* etc. which PENZL also cites on page 91, though he considers them as examples of geminate *b* and *g*.

These last examples lead to another questionable point in PENZL's analysis of the OHG obstruents. Throughout, if I understand him correctly, he interprets the double spellings *bb* (or *pp*), *tt*, *gg* (or *cc*, *kk*), *ss* as evidence for 'geminate' obstruents, but the double spellings *ff*, *zz*, *hh* as evidence for 'fortis' obstruents. Now it is true that there is one point in the OHG obstruent system where there was an opposition fortis ≠ geminate: after the change of the early fricative [p] to the stop [d] and of early [d] to [t] there was among the dentals the three-way opposition /d/ ≠ /t/ ≠ /tt/ (short lenis, short fortis, long fortis), as in *quedan* vs. *tretan* vs. *dritto* etc. Except for these dental stops, however, there was nowhere else an opposition between fortis and geminate; we have only, in medial position, an opposition between obstruents that were short-and-lenis vs. obstruents that were long-and-fortis. We may decide that the opposition short ≠ long was the relevant one, and the opposition lenis ≠ fortis redundant, as the OHG scribes did when they wrote *ofan* 'stove' vs. *offan* 'open'; or we may decide that

the opposition lenis $\neq$ fortis was the relevant one, and the opposition short $\neq$ long redundant, as the OHG scribes did when they wrote *ouan* 'stove' vs. *ofan* 'open'. We can hardly decide, as PENZL does, that the relevant opposition was short $\neq$ long in some cases, but lenis $\neq$ fortis in other cases. Unless we wish to be quite arbitrary, we must analyze all obstruents in terms of the same oppositions. PENZL's failure to do so permits him to classify /-zz-/ as the fortis fricative opposed to lenis /-s-/; but this is clearly wrong. Short lenis /-s-/ as in *wesan* 'to be' was opposed not to /-zz-/ but to long fortis /-ss-/ as in *wessa* 'knew'. The peculiar thing about /-zz-/ is that there was no short lenis fricative opposed to it. It represented a genuine asymmetry in the system of obstruents, which was later removed by the merger of /-zz-/ and /-ss-/ and, word-finally, by the merger of /-z/ and /-s/.

There are other details in PENZL's treatment of the OHG obstruents that I find unsatisfactory. I regret in particular that, from his analysis of five sample documents, there does not emerge any general system of obstruents which – with minor adjustments – was common to all the OHG dialects. There surely was such a system. For early OHG I believe it was the system diagrammed above, with the exception that some areas probably had the affricate [kx] rather than the aspirate [kh] (and Otfrid apparently had a labial aspirate/affricate phoneme which was [ph] initially but [pf] medially and finally). The internal structure of this system later changed when /p/ gradually developed stop allophones and eventually became the lenis stop /d/; when /p̥p/ merged with /tt/; and when early /d/ became /t/.

PENZL's final section on 'Lautwandel', chapters 11–18, is in most respects excellent. Because he works with entire systems rather than with isolated sounds, he is able to take full advantage of recent theories which attempt to explain sound change as the result of pressures within the system: 'Schub' (MARTINET's push chain), 'Sog' (MARTINET's pull chain), the notion of a 'hole in the pattern', etc. It is noteworthy that PENZL rejects the 'Wellentheorie' in its extreme form (the notion that a sound change originating at some particular place can then spread swiftly over a large area) in favor of OTTO HÖFLER's 'Entfaltungstheorie' (the notion that a sound change can arise more or less simultaneously throughout a large area). This is in agreement with the theory of structural pressures: the same pressures (push, pull, hole in the pattern, etc.), wherever they occur, can lead to the same changes.

I find this last section unsatisfactory only where it repeats the errors (in my opinion) of the middle section. Discussing again the direct variation between *uo*, *oo*, *o* in the Isidor spellings *buohhum*, *boohhum*, *blomo*, PENZL writes: 'Hier und in allen Fällen, wo neben den Altzeichen (*oo*, *o*) das Neuzeichen (*uo*) in direkter oder indirekter Variation aufgetaucht ist, nehmen wir den Lautwert des Neuzeichens, also in diesem Falle durchgeführte Diphthongierung an' (p. 133). I find this acceptance of 'Neuzeichen' and rejection of 'Altzeichen' needlessly arbitrary. We can avoid any such arbitrariness if we assume a phoneme / $\bar{o} \sim uo$ / which either had slight diphthongization or varied freely between monophthongal and diphthongal pronunciation.

Concerning the shift of pre-OHG /p t k/, PENZL writes: 'Im Endstadium in den ahd. Dialekten (§ 16.1 oben) haben wir aus **p* **t* **k* im Inlaut Fortisspiranten /f/ /z/ /x/ in Opposition zu den alten Lenisspiranten /v/ /s/ /h/ und den Affrikaten /pf/ /tz/, südoberdeutsch /kx/' (p. 154). This statement is correct in respect to what it includes, but it is misleading in respect to what it omits. A more comprehensive statement would be: (1) pre-OHG /-p- -p/ merged with the reflexes of pre-OHG /-ff- -f/ to give OHG fortis /-ff- f-/; which medially was opposed to lenis /-f-/ (or /-v-/) from pre-OHG /-f-/; (2) pre-OHG /-k- -k/ merged with the reflexes of pre-OHG /-xx- -x/ to give OHG fortis /-xx- -x/ (or /-hh- -h/), which medially was opposed to lenis /-h-/ from pre-OHG /-h-/; (3) pre-OHG /-t- -t/ did *not* merge with the reflexes of any pre-OHG fricative, but gave the new OHG fortis /-zz- -z/; and (4) pre-OHG /-ss- -s/ gave OHG fortis /-ss- -s/, which medially was opposed to lenis /-s-/ from pre-OHG /-s-/.

This section also contains an error in the interpretation of scribal spellings. On page 128 PENZL writes: 'Im *Altsächsischen* ist Zusammenfall der Entsprechungen von **ai* und **au* mit * $\bar{e}$ und * $\bar{o}$ eingetreten: *hētan*, *hēr*; *bōt*, *fōt*.' (The spelling *bōt* is presumably a misprint for *bōd*.) This can be corrected by applying PENZL's principle of 'indirect variation'. The Old Saxon reflexes of **ai* and **au* are written with almost complete consistency in both main Heliand manuscripts (M and C) as *e* and *o*: *hetan* and *bod*. The reflexes of * $\bar{e}$ and * $\bar{o}$, on the other hand, are typically written *e* and *o* in MS M: *her* and *fo*; but they are typically written *ie* and *uo* in MS C: *hier* and *fuot*. This 'indirect variation' between the spellings of manuscripts M and C clearly disproves the merger of **ai* with * $\bar{e}$ and of **au* with * $\bar{o}$.

This has been a long review – but PENZL's book is so good and so important that it deserves a long review. My great regret is that his phonemic analyses in the middle section (chapters 6–10) are so questionable that many readers will perhaps doubt the value of a structuralist approach to OHG phonology. I hope, however, that such readers will be convinced of the value of his careful approach (in chapters 1–5) to the phonological interpretation of scribal spellings, and that they will gain new insights from his diachronic interpretation (in chapters 11–18) of the sound changes that occurred during the OHG period.

A final remark. It is entirely possible that PENZL's phonemic analyses of OHG vowels and consonants are right, and that my own are wrong – though of course I do not think so. For my view of the OHG vowels, see 'Zur Geschichte des deutschen Vokalsystems' in *Beiträge zur Geschichte der deutschen Sprache und Literatur* (Tübingen), vol. 83, pp. 1–35 (1961), reprinted in HUGO STEGER *Vorschläge für eine strukturelle Grammatik des Deutschen*, pp. 480–517 (Wissenschaftliche Buchgesellschaft, Darmstadt 1970). For my view of the consonants, see 'The Consonant System of Old High German' in P. VALENTIN and G. ZINK *Mélanges pour Jean Fourquet*, pp. 247–259 (Klincksieck, Paris, and Hueber, Munich 1969).

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E. ZWIRNER and K. ZWIRNER: **Principles of Phonometrics**, transl. by H. BLUHME. Alabama Linguistics and Philological Series, vol. 18. The University of Alabama Press, University, Ala. 1970. IX + 193 pp.; US \$ 12.00.

It can now be said with certainty that the fact that NIKOLAAS VAN WIJK's (1880–1941) *Phonologie* of 1939 appeared in the same year as TRUBECKOJ's posthumous *Grundzüge* has been one of the major reasons for its not receiving the attention it deserves, although two scholars of international stature wrote detailed reviews of the study: R. JAKOBSON in Europe [*AL* 1: 123–129, 1939], and G. L. TRAGER in America [*Lg* 16: 247–251, 1940]. A similar fate, it would seem, was sustained by the new approach to phonetic investigation and experimentation launched by EBERHARD ZWIRNER, a trained neurologist, and KURT ZWIRNER, a mathematician, in their *Grundfragen der Phonometrie* of 1936. Indeed, it appeared that Praguian phonology, on the one hand, and the type of experimental phonetics represented by E. W. SCRIPTURE, on the other, had absorbed the realm of phonetic inquiry leaving no room for a phonometrics as envisaged by the ZWIRNERS. However, neither the first suggestion, namely, that historic events debarred phonometrics from being recognized, nor the second, i.e. that phonometrics would have no claim to existence, proved to be correct. The ZWIRNERS have clearly demonstrated the importance and necessity of their procedures of phonetic observation and classification as opposed to the views of TRUBECKOJ and SCRIPTURE (cf. pp. 78 ff., 132 ff.), and the recent English translation of the revised and enlarged

edition of their *Grundfragen* of 1966 (as volume one of *Phonometrie*) might well mark another step forward in the international recognition of phonometrics which had previously been appraised only in Europe by a small though significant group of linguists, among them no less a person than the late LOUIS HJELMSLEV (1899–1965) and GYULA (or JULIUS VON) LAZICZIUS (1896–1957)¹.

The second revised edition of the *Grundfragen* consists of some 70 pages more than the first of 1936 (xi + 140 pp.), and it appears that the bulk of the additions have been made to the 'Observations on the history of phonetics' (pp. 8–81). As a result the translator of the present volume felt it desirable to point out that this work 'is in no way intended as a manual of the history of linguistics' (p. v), partly because it makes only brief mention of the Greek and Indian contributions to the phonetic study of language and ignores those of the Arabs and Chinese. However, I share the translator's view that the 'amount of historical information in what is basically a book on the philosophical [*sic!*] foundation of phonetic research may be surprising' (p. vi) and in fact suspect something of what COLLINGWOOD felicitously termed 'Whig history' to be involved in the account presented here. Since the theoretical foundations as well as the methodological procedures of phonometrics are now easily accessible to anyone wishing to acquaint himself with these ideas and principles [cf. also H. M. HOENIGSWALD's note in *Lg* 47: 189–190, 1971], I have chosen to treat some aspects of the overview of the development of phonetic study from antiquity to the turn of this century. E. ZWIRNER's 1926 dissertation, *Zum Begriff der Geschichte: Eine Untersuchung über die Beziehungen der theoretischen zur praktischen Philosophie* (see *Bibliography*, p. 188) suggests the author's lifetime interest in historical aspects of various areas of human curiosity. Because of my own historical bias, it is in this field that I am especially interested in E. ZWIRNER's scholarly activity, particularly in his publications during the past five or six years. That we differ substantially on the interpretation of historical events in linguistics will be illustrated in the subsequent paragraphs.

There are indications that one 19th-century linguist in particular has received E. ZWIRNER's attention in recent years: the Leipzig (and later on Berlin) professor of East Asian languages and general linguistics GEORG VON DER GABELENTZ (1840–1893), son of the important self-taught investigator of Indonesian and Polynesian languages, HANS CONON VON DER GABELENTZ (1807–1874).² GEORG VON DER GABELENTZ, who first distinguished

¹ Two papers from HJELMSLEV's pen, both of 1938, have been reprinted in *Phonometrie. II. Allgemeine Theorie*, ed. by E. ZWIRNER and K. EZAWA (Karger, Basel 1968): 'Neue Wege der Experimentalphonetik', and 'Über die Beziehungen der Phonetik zur Sprachwissenschaft' (pp. 112–158, and 159–177, respectively); this volume reproduces, among the programmatic statement of the ZWIRNERS concerning phonometrics, 'Aufgabe und Methoden der Sprachvergleichung durch Mass und Zahl' of 1936 (pp. 1–19), and ANTTI SOVIJARVI's 'Die Hauptprinzipien der phonometrischen Forschung' (pp. 316–322) first published in 1946, LAZICZIUS' critical analysis of the Saussurean dichotomy, 'Die Scheidung *langue-parole* in der Lautforschung' of 1938 (*ibid.*, pp. 178–189). In view of the comparatively small amount of space devoted to epistemological and methodological questions of phonometrics in the outline under review (cf., pp. 82–156), attention should be drawn to this and the third volume of the series, subtitled *Spezielle Anwendungen. I.* (Karger, Basel 1969); a fourth volume is to appear.

² This explicit statement seems to be called for since the Index (p. 191) lists 'GABELENTZ, H. G. CONON VON DER' when referring to 'GABELENTZ, (HANS) GEORG (CONON) VON DER'; GEORG's father is not mentioned in the present volume but ZWIRNER has offered a more explicit biographical account on both linguists in his article, 'Sprachen und Sprache: Ein Beitrag zur Theorie der Linguistik', *To Honor Roman Jakobson. III*, Vol. 2, pp. 442–464 (Mouton, The Hague 1967), at pp. 2, 442–446.

himself through his *Chinesische Grammatik* of 1881 (reprinted by Deutscher Verlag der Wissenschaften, Berlin 1953), appears now to be favoured for his work on general linguistics, *Die Sprachwissenschaft, ihre Aufgaben, Methoden und bisherigen Ergebnisse*, which appeared in 1891 and, in a second revised edition, in 1901, and has recently been reprinted³. Although GABELENTZ had been mentioned favourably (and often in conjunction with SAUSSURE) by JESPERSEN (1922), HJELMSLEV (1928), IORDAN/ORR (1937), KAINZ (1941), REICHLING (1948), MICHELS (1952), COSERIU (1958)⁴, it appears that it was ZWIRNER's paper at the Fifth International Congress of Phonetic Sciences in 1964 which drew renewed attention to this scholar who has generally been ignored in the modern 'histories' of linguistics or only mentioned en passant as in J. P. MACHADO's *Breve história da lingüística* of 1965, for instance. Where previous references to GABELENTZ had merely pointed to certain affinities between his ideas and those found in the *Cours*, ZWIRNER has claimed repeatedly that GABELENTZ anticipated important components of SAUSSURE's linguistic theory, contentions which, in my view, have found to date their boldest expression in EUGENIO COSERIU's article, 'Georg von der Gabelentz et la linguistique synchronique' [Word 23: 74-100], which appeared in 1969. Since COSERIU's essay does not mention any of ZWIRNER's statements on this topic and since it has been made the subject of a separate discussion⁵, it will not be dealt with here.

In his paper, 'Die Bedeutung der Sprachstruktur für die Analyse des Sprechens: Problemgeschichtliche Erörterung' (Proceedings of the above-mentioned Congress, pp. 1-21, at 7-9), ZWIRNER put forward his claim that GABELENTZ had forecast SAUSSURE with respect to three major aspects of the theory outlined in the *Cours*: (1) the rigorously systematic nature of language, (2) the synchrony/diachrony dichotomy, and (3) the distinction between *langue* and *parole*. Similar contentions were made by ZWIRNER in the subsequent years, e.g. CLTA 3: 189-190 [1966]; *Phonometrie. I.* (1966), pp. 81, 101-103, 109, and 166; *To Honor Roman Jakobson. III.* (1967), pp. 2, 445-446; *Phonometrie. II.* (1968), pp. xi-xiv, and in *Frankfurter Allgemeine Zeitung*, No. 236 (Saturday, Oct. 11, 1969), and his pupil KARL HEINZ RENSCH has tried to substantiate his master's claims in roughly the same period⁶. It is correct that SAUSSURE owned a copy of GABELENTZ's *Sprachwissenschaft* but this does not necessarily mean that SAUSSURE took his ideas from this book nor that he developed his ideas after the publication of this work in 1891. Indeed SAUSSURE made explicit and very audacious use of the concept (and term) of system in his *Mémoire* of 1878 and developed his distinction between synchrony and diachrony in the 1880s when he was a lecturer at the University of Paris, as MEILLET reported in his obituary in 1913 [BSL 18: No. 61, p. clxiv f.]. In fact, I have been able to show that HERMANN PAUL is much more likely than GABELENTZ the precursor *par excellence* of those ideas which are now generally associated with the name of SAUSSURE⁷. In his *Prinzipien* of 1880 and, more explicitly, in its second enlarged and revised edition of 1886, PAUL distinguished clearly between descriptive and historical aspects of language study, showed himself to be aware of the systematic char-

³ G. VON DER GABELENTZ, *Die Sprachwissenschaft*, repr. with a preface by G. NARR and U. PETERSEN and an article by E. COSERIU, 'Georg von der Gabelentz et la linguistique synchronique' (Tübinger Beiträge zur Linguistik, Tübingen 1969).

⁴ For complete references, see E. F. K. KOERNER, *Bibliographia Saussureana, 1870-1970* (The Scarecrow Press, Metuchen, N.J. 1972 [c. 1971]).

⁵ See our review of the item listed in footnote 3 in *Lingua*, 28: 153-159 [1971].

⁶ Cf. K. H. RENSCH, 'Ferdinand de Saussure und Georg von der Gabelentz: Übereinstimmungen und Gemeinsamkeiten dargestellt an der langue-parole Dichotomie sowie der diachronischen und synchronischen Sprachbetrachtung', *Phonetica* 15: 32-41 [1966]; see also *idem* in *Phonetica* 16: 78-79 [1967].

⁷ Cf. E. F. K. KOERNER, 'Hermann Paul and Synchronic Linguistics', to appear in *Lingua*, vol. 28.

acter of language (as did almost all other linguists before him), and emphasized the distinction between the individual and the social side of language. His pair of 'Sprachusus' versus 'individuelle Sprechfähigkeit', for instance, is much closer to SAUSSURE's *langue/parole* dichotomy than GABELENTZ's distinction between 'Rede' and 'Einzelsprache', since SAUSSURE was, in the early years of his career, associated with the neogrammarians and their doctrine. By contrast GABELENTZ's theories do not, contrary to ZWIRNER's re-iterated suggestions (cf. above locations), have anything to do with the *Junggrammatiker* who incidentally worked at Leipzig at the time when GABELENTZ taught there (1878–1889), but have their epistemological foundation in HUMBOLDT's general linguistic ideas. It is, therefore, not surprising that nowhere in his work, whether published or unpublished, does SAUSSURE make mention of GABELENTZ; by contrast SAUSSURE made critical remarks concerning PAUL on various occasions (cf. R. GODEL's *Sources manuscrites* of SAUSSURE's *Cours*, 2nd printing, pp. 29, 51 [Droz, Geneva 1969], and elsewhere). However, it appears that once E. ZWIRNER has convinced himself that GABELENTZ anticipated Saussurean principles, he cannot but continue to perpetuate the *fable convenue* even to the extent of attempting to reinforce his argument as his article of 1969, 'Zur Herkunft und Funktion des Begriffspaars Synchronie – Diachronie', suggests, in which further claims are made which I believe to be without foundation⁸.

Very similar contentions have been made in the present volume (pp. 76, 81, 127 f.), and this is all the more surprising if one notes that ZWIRNER states explicitly that GABELENTZ's book appeared 'some ten years after... PAUL's *Prinzipien*' (p. 75). However, I would not have dwelled on this particular topic if I had been convinced that it were of no significance. But ZWIRNER, in his preface to the English translation of the *Grundfragen*, points out that this book 'represents an introduction to the history of these [i.e. experimental phonetic] investigations, to the principles underlying functional phonetics, and to the techniques of "experimental phonology"' (p. viii), and obviously seeks support for the validity of his approach from history, very much like CHOMSKY in his *Cartesian Linguistics* of 1966. No one would object to a history written essentially *pro domo* unless it claims to be no more than salvaging one's own convictions, but ZWIRNER's account of the history of phonetics seems to be designed for a wider purpose. The chapter on the history of the term 'phonetics' (pp. 8–14), and also *mutatis mutandis* the subsequent ones devoted to the development of phonetic theory in western linguistic thought until the 19th century (pp. 15–53), cannot be regarded as having a direct impact on what the ZWIRNERS try to ascertain in the sections in which they present the epistemological foundation of their own theoretical argument (pp. 82–121). This does not invalidate the first part of the volume *per se* but it would seem that the authors were having difficulties in relating the historical part to the theoretical part of the study. The historical portion of the volume, therefore, could well have appeared as a separate work if parts of the chapter on the 19th century (pp. 53–81) were slightly emended. Indeed this part offers valuable information on earlier epochs of phonetic investigation which cannot be found in the so-called histories of linguistics available to the present date; some scholars, e.g. R. G. LATHAM (pp. 11–13) or R. VON RAUMER (pp. 4, 10, 13, 18, 64–67, 73, 77, 80) receive more attention than previous Western accounts have provided.

A very interesting and indeed valuable feature of the historical component under review is the incorporation of non-linguistic trends and discoveries, both in philosophy and in the natural sciences, of the periods under investigation. This aspect, though it has been motivated by the phonometric approach to linguistic analysis outlined in the second half of the volume, highlights what I believe to be the prerequisite *sine qua non* for the foundation of a historiography of linguistics, namely, the consideration of the intellectual paradigm

⁸ Cf. *Sprache: Gegenwart und Geschichte*, pp. 30–51 (Schwann, Düsseldorf 1969), in particular pp. 31–32, 35–41.

of a given period in the assessment of the specific linguistic ideas expressed by its members. The background on which linguistic thought developed in the 17th and 18th centuries (pp. 40–46, 47–74) seems particularly instructive although the authors did not always avoid the danger of what ROBINS has called 'academic namedropping' (cf. pp. 30, 32–33, 36, etc.). I am not inclined to endorse the chapter on the 19th century (pp. 53–81), for several reasons. Firstly, there is an over-emphasis on the contributions of BOPP (55–56, 58–60, 62, 75), GRIMM (pp. 56, 58, 61, 75, 81), and HUMBOLDT (pp. 55–59, 63) at the expense of the last two decades of the century; as regards HUMBOLDT, I note with surprise that the ZWIRNERS affirmed, in 1966, that his life's work 'resists a Renaissance' (p. 57).

Recently, BARBARA H. M. STRANG emphasized that it is in fact 'the latter part of the nineteenth century, a period in which the history of linguistics has hitherto been illuminated by intense but narrow beams' which 'now needs bringing into the general light of day' [FL 6: 438]. Maybe the ZWIRNERS have tried to do just that in their informative chapter on 19th-century developments in phonetic study. However, there are a number of gaps and at times serious distortions. E. ZWIRNER's preface to the English translation, in which he mentions RAUMER, SCHERER, GABELENTZ, and SAUSSURE as those 'distinguished linguists... [who] had pointed out that the proper object of study in scientific linguistics [*sic!*] is not the written text [*sic!*] but the spoken language itself' (p. vii) forecasts the author's bias. SCHLEICHER does not figure at all in the account; he is only mentioned once (p. 18) in this volume. The neogrammarians, in particular, do not receive fair treatment; OSTHOFF and BRUGMANN, in their famous introduction to the first volume of the *Morphologische Untersuchungen* of 1878, pointed to the importance of the spoken language and were confident that dialect studies would confirm their *Lautgesetz* hypothesis (cf. the reference to WENKER on p. 73). It is simply not true that WINTELER's *Kerenzer Mundart* 'became famous only lately' (p. 72); SIEVERS made use of WINTELER's findings in his *Grundzüge der Lautphysiologie* of the same year and OSTHOFF and BRUGMANN referred just to this dialect study in their *Einleitung* two years later. Nor is it correct to maintain that the work of BAUDOUIN DE COURTENAY 'became only known in Western Europe through ROMAN JAKOBSON and MATHEIUS' (p. 72). Here, as on a number of other occasions, the reader would suspect too uncritical reliance on secondary or tertiary sources*. The late DANIEL JONES (1881–1967) related repeatedly that L. S. ŠČERBA (1880–1944), one of BAUDOUIN's most prominent pupils at St. Petersburg University, had acquainted him with BAUDOUIN's ideas as early as 1911.

These are only a few blemishes, however, and a number of other shortcomings could be added. (Why is M. KRUSZEWSKI not mentioned? Why is SAUSSURE's attempt at a phonological theory not presented? etc.) But, as we have already stated, on the whole the historical account given in the volume under review contains some valuable information which cannot be found in similar studies of today. One nevertheless notes with surprise that recent works in the history of linguistics by IVIĆ, MALMBERG, ROBINS, and others have not been consulted. Indeed the bibliography (pp. 175–189) has not been updated; the translation follows the original quite closely to the extent that mistakes of the latter are repeated here, e.g. DE BROSCHE (p. 176) instead of DE BROSSES (cf. also pp. 32 and 163, note 10); the name of MERKEL is repeated (p. 182) although the entries are not printed on two separate pages as in the original, and 'usw.' of the original has not been rendered into 'etc.' (p. 186); no reference has been made to the English translation (New York 1959 and 1966) of the Saussurean *Cours* (p. 185) to replace the reference to the German version; and further errors are added, e.g. *Wanderpare* (p. 178) for *Wanderjahre*. In cases where the English edition

* For a useful study of BAUDOUIN, see FRANK HÄUSLER, *Das Problem Phonetik und Phonologie bei Baudouin de Courtenay und in seiner Nachfolge* (Niemeyer, Leipzig 1968), and our review article in *Linguistics* 77: 63–77 [1972].

has been innovative, the information is either distorted, e.g. 'proceedings [sic!] III. Int. Math.-Kongr.' (p. 179) or incorrect, e.g. the English translation of PAUL's *Prinzipien* did not appear in 1881 (p. 184) but followed the second and much enlarged edition of 1886 in 1889 and 1890.¹⁰ A serious lacuna is HELMHOLTZ's influential *Lehre von den Tonempfindungen* of 1863 (6th ed., 1913); his essays on GOETHE's scientific endeavours (p. 179) are of much less importance. The translator adds (p. 187) the English rendering of TRUBECKOJ's *Anleitung zu phonologischen Beschreibungen* (The Hague 1968) but he does not mention the translation of TRUBECKOJ's *Grundzüge* of 1969 although he edited both.

As a non-native speaker of English, I do not feel competent to judge the quality of the translation; there are indications that it is not significantly better than that of TRUBECKOJ's *Principles of Phonology* [cf. W. K. PERCIVAL's review in *GL* 11: 54–56, 1971]. The contextual ambiguity of 'two decades later' (p. 52, line 5) has not been recognized; *Schlegel* cannot be separated *Sch-Legel* (pp. 56, line 3 f.), 'impression' (pp. 63, 81, and elsewhere) does not always mean 'Auflage'; I do not understand the phrase 'this aspect of the difference between the Swiss and the Polish researchers' (p. 78, line 24 f.); I would query the word order of 'which the Belgian... Quetelet in 1871 utilized for the mastery [sic!] of the problem' (p. 80, lines 5 to 3 [from below]) and the punctuation and style of '...definable segments, which establish the existence of discrete speech-sounds which we believe we speak and hear' (p. 83, line 30 f.), to point out only these few shortcomings.

Despite these inaccuracies of the translation and in the presentation of the historical part of the book, the English version will serve as a very useful introduction to phonometrics in a time of increased predilection for theory and a steady decline in the practical knowledge of foreign languages among North American linguists.

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¹⁰ Very similar observations can be made about the 'Index of persons' (pp. 190–193) which does not include the preliminary pages and the footnotes (pp. 157–174) appended at the end of the text for reasons of economy. Its shortcomings can be categorized as follows: (1) names without initials, e.g. AZOULAY, BARLOW, [AUGUST?] KEKULE VON STRADOWITZ, LANGLE, etc.; (2) names with incorrect initials, e.g. D. [rect., E.] R. CURTIUS, or first names, e.g. THOMAS [recte, THEODOR] BENFEY or Sir (?) WILLIAM [recte ALEXANDER] HAMILTON; the latter appears confused with (Sir) W(ILLIAM) JONES; (3) surnames are misspelled, e.g. GYÁRMATH for GYÁRMATHI, (JUSTUS VON) LIEBIG, not LIEBEG, etc.; (4) why is GOETHE referred to 'GOETHE, JOHANN WOLFGANG VON' or CHARLOTTE VON STEIN listed as 'Baroness', etc. when no such reference is made in the cases of HUMBOLDT, WILLIAM JONES, LEIBNIZ, LIEBIG, and others?