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A DESCRIPTION OF A PHONEMIC CHANGE.

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THE OLD HIGH GERMAN DIPHTHONGIZATION:
A DESCRIPTION OF A PHONEMIC CHANGE

Irmengard Paula Rauch

A dissertation submitted in partial fulfillment
of the requirements for the degree of
Doctor of Philosophy in the
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1962

Doctoral Committee:

Professor Herbert Penzl, Chairman
Professor Frank X. Braun
Research Associate Ilse Lehiste
Professor Clarence K. Pott

DEDICATION

To the memory of

my inspiring and beloved father

KONRAD RAUCH, electronic research engineer,

March 30, 1900 - January 30, 1960.

ACKNOWLEDGEMENT

All who have helped me in the course of the doctorate study, I give my sincerest gratitude. Professor H. Penzl, my teacher and chairman, stimulated and directed my work. The willing advice of Dr. I. Lehiste and the support of Professors C.K. Pott and F.X. Braun are also deeply appreciated. Finally, I am grateful to my understanding and encouraging family.

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ABBREVIATIONS AND SYMBOLS

Languages and Dialects

Alem.	Alemannic
Bav.	Bavarian
Celt.	Celtic
Franc.	Franconian
Gall.	Gallic
Germ.	German
Gmc.	Germanic
Go.	Gothic
Gk.	Greek
IE	Indo-European
Ital.	Italian
Lat.	Latin
Lgbd.	Langobardic
Mid. Franc.	Middle Franconian
MHG	Middle High German
Mod. Germ.	Modern German
NHG	New High German
NF	New French
No. Gmc.	North Germanic
OE	Old English
OF	Old French
OHG	Old High German
OS	Old Saxon
PGmc.	Proto-Germanic
POHG	Pre-Old High German
Rh. Franc.	Rhenish-Franconian
Rom.	Romance
So.-Rh.-Franc.	South-Rhenish-Franconian
Up. Germ.	Upper German
VL	Vulgar Latin
WGmc.	West Germanic

Abbreviations, if used, for the OHG monuments are indicated in Appendix A.

Grammatical Terms

acc.	accusative
dat.	dative
fem.	feminine
gen.	genitive
indic.	indicative
masc.	masculine
neut.	neuter
nom.	nominative
part.	participle
pers.	person
pl.	plural
pres.	present
pret.	preterite
pron.	pronoun
redupl.	reduplicated
sg.	singular
subj.	subjunctive
(ɣ)	open quality (vowel)
(ɣ)	close quality (vowel)
⟨⟩	graphemic value
[]	phonetic value
/ /	phonemic value
>	becomes, became
<	comes from, came from
~	alternates with

Periodicals

AfdA	Anzeiger für deutsches Altertum und deutsche Literatur
ArchfSnS	Archiv für das Studium der neueren Sprachen
Bezzenbergers Beiträge	Beiträge zur Kunde der indo-germanischen Sprache
Forsch. zrPhil.	Forschungen zur romanischen Philologie
IF	Indogermanische Forschungen
JEGP	Journal of English and German Philology
Kuhns Zeitschrift	Zeitschrift für vergleichende Sprachforschung
Lang.	Language
PBB	Paul-Braune: Beiträge zur Geschichte der deutschen Sprache und Literatur
QF	Quellen und Forschungen
RF	Romanische Forschungen
TCLP	Travaux du cercle linguistique de Prague
ZfdPhil.	Zeitschrift für deutsche Philologie
ZffrzSL	Zeitschrift für französische Sprache und Literatur
ZfMafg.	Zeitschrift für Mundartforschung
ZfPhon.	Zeitschrift für Phonetik und allgemeine Sprachwissenschaft
ZfrPhil.	Zeitschrift für romanische Philologie

CHAPTER I

INTRODUCTION

1.0 The "Old High German Diphthongization"

The phonology of OHG is characterized by a series of phonemic changes which occur variously and to different degrees in its several dialects.[1] Among the consonantal developments the OHG Consonant Shift is outstanding. Among vocalic changes are the i-umlaut, a phonemic merger of vowels in unstressed syllables, the monophthongization of Gmc. *ai and *au, and the so-called OHG diphthongization of Gmc. *$\bar{e}_2$ and *$\bar{o}$.

Gmc. *$\bar{e}_2$ and *$\bar{o}$ become ie and uo notably in the OHG area. Brinkmann considers the diphthongization unique to OHG within the Gmc. language family;[2] however, Frings through his thorough investigation of the several Gmc. dialects shows

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[1]Wilhelm Braune, Karl Helm, and Walter Mitzka, Althochdeutsch Grammatik (10th ed. rev.; Tübingen: Max Niemeyer Verlag, 1961) or Adolf Bach, Geschichte der deutschen Sprache (6th ed. rev.; Heidelberg: Quelle & Meyer, 1956)

[2]Hennig Brinkmann in Sprachwandel und Sprachbewegungen in althochdeutscher Zeit (Jena: Verlag der Frommannschen Buchhandlung, 1931), p. 185., writes: "Die ahd. Dyphthongierung dagegen steht innerhalb der germanischen Sprachen vereinzelt und sie hat, vom Fränkischen ausgehend, auch nur einen Teil der Deutschen erfasst."

that a tendency to and actual diphthongization exist outside OHG proper, but with incomparably less consistency and force.[3] Without doubt, digraph forms written ⟨uo⟩, ⟨ie⟩ and in varying other ways reflect sounds characteristic of the High German language at some time between the eighth (at latest) and eleventh centuries.

1.1 The Interpretation of the Data

Unlike the OHG Consonant Shift the diphthongization is historically fully accessible to the researcher. As a result every phase of it has undergone extensive investigation. The diphthongal development of the two vowels is generally regarded as the same or a parallel process. There is the danger that already from the start down through their succeeding stages scholars have lumped together Gmc. *$\bar{e}_2$ and *$\bar{o}$ perhaps too indiscriminately and even in part erroneously.

It is agreed that the origins of the two vowels are by no means corresponding, but opinions diverge as to the exact nature of those sources which yield Gmc. *$\bar{e}_2$ and *$\bar{o}$. In turn, descriptions differ concerning the distinctive features of Gmc. *$\bar{e}_2$ and *$\bar{o}$ themselves (cf. 2.0 ff.). This graphemic evidence is, of course, also the main source for phonetic and phonemic interpretation (cf. 4.0 ff.), and some scholars find in it a basis for reconstructing so-called intermediate stages in the evolution of the diphthongization.

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[3] cf. map in T. Frings, "Germanisch $\bar{o}$ und $\bar{e}$," PBB, LXIII (1939), 117.

Whether such reconstruction is justifiable is highly debatable. By means of the same orthographic material the new digraphs are usually localized as being a Franconian innovation and the whole sound change has, therefore, been labeled the "Franconian Diphthongization." In that area, it is believed by some that Franconian and Old French reciprocally influenced each other so as to be mutually responsible, to a degree at least, for their respective diphthongizations (cf. 5.0 ff.). Those who reject such a causal relationship usually find the reason for the OHG diphthongization within the internal patterning of the language itself (cf. 6.0 ff.). All these considerations will be treated and incorporated once more into the conclusion (cf. 7.0). . .

1.2 The Description of a Phonemic Change

Throughout this study close attention will be paid to previous research, and its findings will be often commented upon in detail. It is one considered position that a complete description of a phonemic change like the OHG diphthongization must deal with the following aspects: all orthographic and comparative evidence for the phonemic change must be presented; the time and place of origin of the phonemic change must be ascertained; the area in which the phonemic change took place should be described; the type of the phonemic change must be identified; the possible connection with another change or changes and the exact relationship in such a connection must be established; the pertinent synchronic

features of the phonemic pattern at the completion of the phonemic change are to be described; the possibility of ascertaining or reconstructing intermediate phonetic or phonemic stages is to be considered; the phonetic rationale of the process as well as the manner in which the completion of the phonemic change occurred has to be described; and the internal and/or external linguistic factors favorable to the phonemic change must be considered. All of the several forms of evidence need to be subjected to a systematic consideration by means of synchronic and diachronic analysis. This implies approaching the data at every possible angle, i.e., for example, from the structural facts within the OHG phonemic pattern itself to contact evidence from a foreign phonemic pattern or to present-day features in the NHG dialects.[4]

A treatment of a phonemic change by means of a methodical description of all its significant factors will clarify the status of the change as an actual historical event. Such a clear understanding may also very well offer insight into the several as yet unsolved problems concerning the OHG diphthongization. Only by detailed and systematic descriptions of single phonemic changes can a contribution to the development of a more sophisticated methodology treating historical phonemic changes be made.

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[4]There are several works explaining the various phases of the methodology; see the bibliographies offered by Henry Hoenigswald in Language Change and Linguistic Reconstruction (Chicago: The University of Chicago Press, 1960)., and H. Penzl, "The Evidence for Phonemic Change," Studies Presented to Joshua Whatmough on his Sixtieth Birthday ('S-Gravenhage: Mouton & Co., 1957), pp. 193-208.

CHAPTER II

ORIGIN AND PREHISTORY OF THE PRE-OHG *$\bar{e}_2$ and *$\bar{o}$

2.0 The PGmc. Long-Vowel Pattern

The IE five long-vowel system *$\bar{i}$ *$\bar{e}$ *$\bar{a}$ *$\bar{o}$ *$\bar{u}$ does not remain intact in PGmc. Four long vowels, *$\bar{i}$ *$\bar{e}$ *$\bar{o}$ *$\bar{u}$, are reconstructed for it.[1] The four PGmc. vowels are not simply a continuation of the IE vocalism; *$\bar{a}$ of IE became *$\bar{o}$ and *$\bar{e}$ is supposedly *$\bar{æ}$.[2] Usually Indo-Europeanists posit also an *$\bar{e}_2$ phoneme.

From the IE five vowel system to the PGmc. system these major changes occurred: *$\bar{a}$ > *$\bar{o}$, *$\bar{e}_1$ > *$\bar{æ}$, and the rise of *$\bar{e}_2$. According to Trnka's reconstruction, which

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[1] R. Bethge, "Vokalismus des Urgermanischen," Kap. 1 Laut- und Formenlehre der altgermanischen Dialekte, ed. F. Dieter (Leipzig: O.R. Reisland, 1898), par. 1, pp. 1-2 and par. 4, pp. 6-7.

[2] $\bar{æ}$ is designated by E. Prokosch in A Comparative Germanic Grammar (Philadelphia: Linguistic Society of America, University of Pennsylvania, 1939), par. 37, p. 99., as a " . . . 'Phonetic Interpolation,' i.e., the assumption of a transitional stage between $\bar{e}$ and $\bar{a}$. In Go., $\bar{æ}$ reverts to $\bar{e}$ . . ., in No. and W Gmc., $\bar{a}$ results; . . . $\bar{æ}$ in O.E., and $\bar{e}$ in Frisian."

assumes first six then five PGmc. vowels,[3] the raising and labialization of *ā to *ō caused the opening of *ē$_1$, a so-called 'drag chain' reaction.[4] On the other hand, if, as most scholars assume, *ē$_2$ appeared before *ā > *ō, the changes might indicate the functioning of a 'push chain.'[5] Despite the supposed early origin of *ē$_2$ the loan word evidence does not necessarily support this assumption. E. Schwarz judges the merger of *ā with *ō to have taken place in the second century B.C. or earlier, and Bach dates the lowering of *ē to *ǣ some 400 years later.[6]

2.1 The Origin of PGmc. *ē$_2$

In approaching the problem of the origin of the enigmatic *ē$_2$ most scholars systematize the various occurrences

---

[3] B. Trnka in "Fonologický vývoj germánského Vokalismu," Časopis pro moderní filologii, XXII, No. 2 (1936), pp. 157-8., reconstructs a parallelogram with sides *ī *ē$_2$ *ē and *ū *ō *ē (<*ā) for PGmc. resulting in a five vowel *ī *ē$_2$ *ē$_1$ *ō *ū triangle in W. and No. Gmc.

[4] Cf. André Martinet's concepts of "Chaînes de traction et de propulsion" in Économie des changements phonétiques (Berne: Editions A Francke S.A., 1955), par. 2.28, p.59.

[5] L. E. van Wijk speaks of this possibility in De Klinkers der Oergermaanse Stamsyllaben in hun onderling Verband (Bilthoven-Tegal Java N.V.: Dukkerij J. D. de Boer, 1936), p. 122.

[6] Ernst Schwarz in Deutsche und Germanische Philologie (Heidelberg: Carl Winter Universitätsverlag, 1951), p. 25., notes: "Der Zusammenfall von idg. ā und ō . . . liegt offensichtlich etwa im 2. Jh. vor Ch. oder vorher." A. Bach in Geschichte der deutschen Sprache (6th ed. rev., Heidelberg: Quelle & Meyer, 1956), par. 47, p. 62., says: " . . . nach dem 2. Jh. n. Chr.: urgerm. ē = got. ē ist im 'Westgerm.' und Nord. zu ā geworden." See also O. Bremer, "Relative Sprachchronologie," IF, IV (1894), pp. 21 ff.

as the following five types:[7]

a)	IE *ēi	IE $\hat{k}$ei-: Go. hēr
b)	loan words	VL mēsa: Go. mēs
c)	W. and N.Gmc. redupl. verbs	Go. haihait: O.S. hēt
d)	W. Gmc. -VzC-	Go. mizdō: O.S. mēda
e)	pronominal forms	Go. þai: OHG thē.[8]

Janko in his very inclusive listing considers also a group of words containing, according to him, *$\bar{e}_2$ under secondary stress, e.g. habēm.[9]

Traditionally, i.e., since Jellinek, the hēr category has been most often considered as reflecting the primordial source of the *$\bar{e}_2$.[10] In 1891 he first explains the Gmc.*$\bar{e}_2$ as a contraction of the IE long *ēi-diphthong. He had observed that since it alternates with ī-forms, *$\bar{e}_2$ must belong to the first ablaut series.[11]

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[7]Cf. e.g. W. Wilmanns, Deutsche Grammatik, Vol. I: Gotisch, Alt-, Mittel- und Neuhochdeutsch (3rd ed. rev., Strassburg: Karl J. Trübner Verlag, 1911), pars. 189 ff., pp. 262 ff. See also a very early survey of Gmc. *$\bar{e}_2$ in Georg Holz, Urgermanisches geschlossenes ē und Verwandtes: Beitrag zur laut- und flexionslehre des germanischen (Leipzig: Gustav Fock Verlag, 1890) p. 3., where Holz sets up three classes.

[8]Section 3.7 below treats the pronominal forms.

[9]Josef Janko, "Über germanisch *$\bar{e}_2$ und die sog. reduplizierenden Praeterita," IF (1906/1907), pp. 257-8.

[10]M. H. Jellinek in "Germanisch $\bar{E}^2$," PBB, XV (1891), p. 300., wrote: " . . . dass . . . ein $\bar{e}^2$ der ei-reihe entspricht. Daraus scheint weiter zu folgen, dass $\bar{e}^2$ im germ. aus ēi entstanden ist."

[11]Karl Brugmann in "Der präteritale Bildungstypus ahd. hiaz aisl. hét und ahd. liof aisl. hljóp," IF, VI (1896), p. 90., also works with *ēi. He explains that the *ēi, being subject to the reduction laws of long diphthongs, results in *ē.

Lehmann considers as primary groups the hēr-type which represent the development of a laryngeal in the neighborhood of a resonant. For the hēr-type he writes: "Morphological evidence therefore points to derivation of words with $\bar{e}_2$ from the normal grade of 'original long diphthongs,' that is, in terms of laryngeal theory, /eXy/;" and for the hēt-type: " . . . the preterite forms of three sub-classes of seventh class verbs, $\bar{e}_2$ developed from e and a laryngeal before resonants."[12] Schrader quite early suggested that r was the conditioner: " . . . die lautverbindung ija im Urgermanischen vor r zu jenem merkwürdigen ē zusammengezogen wurde, welches im Ahd. durch ē, ea, ia reflektiert wird."[13] The r is, furthermore, considered a possibility in the skeptically presented view of Hirt.[14]

Beside Lehmann's "original *ēi from /eXy/," Schrader's "ija," Hirt's cautious reference to "ei" and also Möller's conviction of "ursprünglichem kurzem (offenen) e,"[15] van Coetsem derives *$\bar{e}_2$ directly from *ei. He postulates like Hirt (cf. fn. 23 below) four instead of the usual three

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[12]Winfred P. Lehmann, Proto-Into-European Phonology (Austin: The University of Texas Press and the Linguistic Society of America, 1952), pp. 67 and 71.

[13]O. Schrader, "Studien auf dem gebiete der griechisch-wortbildung. I," Bezzenbergers Beiträge, XV (1889), p.133.

[14]Hermann Hirt, Handbuch des Urgermanischen, Vol. I: Laut- und Akzentlehre (Heidelberg: Carl Winters Universitäts-buchhandlung, 1931), pp. 34-5.

[15]Hermann Möller, Review of Abriss der Urgermanischen Lautlehre, by Adolf Noreen, AfdA, XXV (1899), p. 116.

diphthongs for PGmc., namely *au, *ai and *eu, *ei. He assumes that since *e became *i and *eu became *iu in all Gmc. dialects before *i and *j in the following syllable, and in some dialects also before a succeeding *u, that *ei can experience just such a split.[16] Van Coetsem writes: "Auch beim urgermanischen sog. ei-Diphthong, den ich ganz gleichläufig mit eu und 'einfachem' e habe sehen wollen, konnte wieder unter den gleichen Bedingungen und parallel mit eu/e, nur eine Zweiheit folgen: ei{1) ii > ī 2) ee > ē."[17] Analogy or pressure of the system is supposed to have eliminated the original conditioning vowel features, e.g. OHG stiega: stiga.[18]

Van Coetsem maintains that the short *ei is also found in the reduplicated verbs where it is a primary occurrence, and he concentrates his argument for the rise of Gmc. *$\bar{e}_2$ in the development of the preterite of these verbs.[19] Lüdtke too

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[16] For more detail see Fr. van Coetsem, "Das System der starken Verba und die Periodisierung im älteren Germanischen," Mededelingen der Koninklijke Nederlandse Akademie van Wetenschappen, Afd. Letterkunde, Nieuwe Reeks, XIX, No. 1 (1956), pp. 18 and 31 ff.

[17] Ibid., p. 37. [18] Ibid., p. 37-8.

[19] Ibid., pp. 47 ff. For more detailed historical background and references for *$\bar{e}_2$ in reduplicated preterites see also Hermann Hirt, Handbuch des Urgermanischen, Vol. II: Stammbildungs- und Flexionslehre (Heidelberg: Carl Winters Universitätsbuchhandlung, 1932), pars. 117 ff.; H. M. Flasdieck, "Die reduplizierenden Verben des Germanischen," Anglia, LX (1936), pp. 241-365; C. Karstien, Die reduplizierten Perfekta des Nord- und Westgermanischen (Giessen: v. Münchou'sche Universitäts-Druckerei, 1921); and S. Feist, "Die sogenannten reduplicierenden Verba im Germanischen," PBB, XXXII (1907), pp. 447-516. Feist includes a complete inventory of the verbs concerned.

works with the hēt-type. He denies a PGmc. *ē$_2$ through reasoning that it is dialectally determined according to the particular need of the preterite formation of these Class 7 verbs; he explains: "A. Die Randzonen (Gotisch u. Anglisch) bewahren die Reduplikation in den Präterita der Klasse 7; folglich entsteht kein ē^2; folglich bleibt ē^1 erhalten. B. Im Zentrum (Deutsch, Nordgermanisch, Westsächsisch) wird die Reduplikation abgeschafft; dabei entsteht das neue Phonem ē^2; folglich wird ē^1 geöffnet . . ."[20]

Lüdtke reasons the creation of *ē$_2$ thus: 1) the stem vowel of the reduplicated item undergoes shortening, e.g. *hĕhaita > *hĕhĕt or *sĕslēpa > *sĕslĕp; 2) in the case of consonant cluster stem initially "metathesis" of the second consonant takes place, e.g. *sĕslĕp > * slĕsĕp. The remaining consonant experiences in step three a kind of rhotacism which later becomes normalized in accord with the next step of the non-cluster type which is the further reduction of its consonant to zero, resulting in a hiatus, e.g. *hĕĕt. The hiatus is resolved in the last step through contraction or diphthongization, e.g. hē$_2$t.[21] He thus reconstructs the rise of *ē$_2$ through reduplicated verbs in all Germanic dialects except Go. and Anglian, and he concludes: "Das Aufkommen des ē^2 bewirkt 'Veränderung' des ē^1, das sich schliesslich bis zu ā öffnet."[22] This excludes then, of course, a general Gmc.

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[20]Helmut Lüdtke, "Der Ursprung des germanischen ē^2 und die Reduplikationspräterita," Phonetica, I (1957), p. 163.

[21]Ibid., pp. 163 ff. [22]Ibid., p. 81.

opening of *ē$_1$ > *ǣ (cf. fn. 2 above).

If *ē$_2$ is to be placed into the PGmc. pattern, it can be represented, it seems, in one of two ways—either as some sort of diphthong or as a monophthong. Hirt gives five long vowels *ī *ē$_1$ *ē$_2$ *ō *ū and four short diphthongs *ei *eu *ai *au,[23] the *ei being the potential Gmc. *ī. But it is conceivable that *ē$_2$ could, as Lehmann suggests,[24] be represented by *ei in a four long-vowel system. If the choice is made for the *ē$_2$ on the grounds that there is no certain evidence that its possible IE diphthongal predecesor did not already become a monophthong in IE, one must decide whether to make it part of Trnka's six or five vowel structure (cf. fn. 3 above), i.e., whether to include the development of IE *ā to Gmc. *ō or not. Possibly it may appear arbitrary, but in view of the very strong probability that the existence of Gmc. *ē$_2$ is by far older (belongs to the proto-language period) than the changes of *ē > *ǣ and *ā > *ō, and that it existed in the proto-language without merging with *ē$_1$ and before *ē$_1$ was lowered, a six vowel system, not perfectly identical with Trnka's, seems reasonable.

The following six vowels are suggested in linear order symbolizing only quality distinction, the *ē$_1$ differing from the *ē$_2$ only in being always more open, therefore indicated by the ligature: *ī, *ē, *ǣ, *ā, *ō, *ū. In conclusion

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[23]Hirt, II, par. 30, p. 37.

[24]Winfred P. Lehmann in "The Conservatism of Germanic Phonology, JEGP, LII (1953), p. 149., speaks of "the potential e plus i diphthong."

it might be said that it is extremely difficult to reject an IE ancestry for Gmc. *$\bar{e}_2$. Every theory, including all those like van Coetsem's, which rest in the main on the reduplicated Class 7 verb forms for the evolution of *$\bar{e}_2$ in Gmc., employs some kind of contraction or reduction, whether it be loss of a syllable or assimilation of contiguous vowels. It is likely that a combination of factors shaped the Gmc. *$\bar{e}_2$, as: on the one hand, the IE tendency to shorten diphthongs in y and w[25], on the other hand, the fixed Gmc. accent together with umlaut inclinations (although umlaut is a type of more general language characteristic of vowel harmony). Probably one or more of these, and perhaps as yet unnoticed factor(s) are involved.

2.2 PGmc. *$\bar{o}$

In terms of the OHG diphthongization Gmc. *$\bar{o}$ is often assumed the pendant of Gmc. *$\bar{e}_2$. PGmc.*$\bar{o}$ reflects IE *$\bar{o}$ (e.g. Gk. δωμός: Go. doms) and *$\bar{a}$ (e.g. Gk. μάτηρ: OE mōdor). It can also reflect IE *ou and *au where these were reduced by loss of the second element.[26] Prokosch cites as an example of the diphthong the IE *pleu/plou: Go. flodus, commenting:

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[25]Franklin Edgerton in Sanskrit Historical Phonology (Publications of the American Oriental Society, Offprint Series No. 19; Baltimore: American Oriental Society, 1946), p. 15., explains: "The diphthongs containing y (and w) have a tendency, all over the IE field, to change to monophthongs; that is . . . some sort of simple vowel."

[26]Johanes Schmidt in "Die Entstehung der griechischen aspirierten Perfecta," Kuhns Zeitschrift, XXVII (1885), p. 305 first notes the reduction of such a diphthong in Indic where IE *ēi became ē, then ā.

"It is hardly possible in instances of this kind to decide whether we have to deal with original long-diphthongs with shortening of the first element, or with a lengthening of original short diphthongs."[27] Bethge lists the Go. flōdus under IE *ō, but makes reference to the IE long diphthong.[28] Hirt gives it as an example of the following process: "Der Kurzdiphthong eu wurde zu ēu. Dieses scheint aber zu ōu und weiter zu ō geworden zu sein, . . ."[29]

It is clear from the preceding that one must assume for Gmc. *ō and *$ē_2$ different etymological beginnings. Both Franck and Mackel agree with this and both state that *$ē_1$ is the actual counterpart of *ō. Their views diverge, however, as to the degree of similarity in the development of *ō and *$ē_2$. Whereas Mackel finds them parallel, Franck skeptically writes that such an apparent developmental parallelism as seen in pairs as *ō and *$ē_2$ does not allow an axiom to be set up that such pairs must act exactly the same. He claims therefore: " . . . in der jüngeren geschichte des germ. ō und $ē_2$ sind verschiedenheiten nicht ausgeschlossen."[30]

Interestingly C. Karstien designs the parallelism to such an extent that he posits an *$ō_2$. He formulates the *$ō_2$

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[27]Prokosch, par. 39b, p. 104.

[28]Bethge, par. 6, p. 8, and par. 11, p. 13.

[29]Hirt, I, par. 47, p. 67.

[30]J. Franck, "Der Diphthong EA, IE im Althochdeutschen," ZfdA, XL (1896), p. 40. For E. Mackel see "Die Aussprache der langen E und O," ZfdA, XL (1896), p. 255.

as the hypothetical pre-form of the preterite eu/eo of the Class 7 reduplicated verbs with an au/o present stem. His equation is as follows: ". . . : wie das ai, $\bar{e}^1$ im nebenton zu geschlossenem $\bar{e}^2$ wurde, so auch hier au, $\bar{o}^1$ zu geschlossenem $\bar{o}$, das ich . . . mit $\bar{o}^2$ bezeichnen werde."[31] Karstien assumes the same contraction process for $*\bar{e}_2$ and $*\bar{o}_2$. The evidence doubtlessly points to parallelism in the later stages; there actually is none for it initially, unless it is to be found in a questionable origin from IE long diphthongs.

2.3 The Qualities of PGmc. $*\bar{e}_2$ and $*\bar{o}$

The distinctive features of the original $*\bar{o}$ and $*\bar{e}_2$ have by no means been conclusively designated. The main contention concerns the quality, whether open or closed. Again the discussion involves to a great extent the individual scholar's prejudice toward the parallelism concept.

W. Braune derives his conclusion from his own Upper-Saxon dialect writing: ". . . während die mit den ahd. genau stimmenden diphthongierungen unserer mundart, die sicher aus geschlossenen ē, ō entstanden, auch für das ahd. das gleiche vermuten lassen, ..."[32] A closed quality for $*\bar{e}_2$ is also assumed by Bremer whose main argument is that the pattern pressure forces a quality distinction with $*\bar{e}_1$. He further points out that this quality manifests itself by a raising

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[31] Karstien, pp. 84-5. For a succinct explanation of the developmental process into the new monophthongs $*\bar{e}_2$, $*\bar{o}_2$, see his p. 156.

[32] Wilhelm Braune, "Zu den deutschen E-Lauten," PBB, XIII (1888), p. 583.

inclination of *$\bar{e}_2$ toward *$\bar{i}$ and a lowering of *$\bar{e}_1$ toward *$\bar{a}$, and that the *$\bar{e}$ in loans as Gmc. *mēs < VL mēsa acts differently from *$\bar{e}_1$. Loan evidence is also applied by him for identifying the quality of Gmc. *$\bar{o}$. He opines that since Lat. $\bar{o}$ is rendered by Gmc.* $\bar{u}$ (as in Rōma > PGmc. *rūma) and not by Gmc. *$\bar{o}$, the Gmc. *$\bar{o}$ must have been open as the *$\bar{e}_1$.[33] The fact that the Lat. $\bar{u}$ is also represented by Gmc. *$\bar{u}$ would seem to confirm this argument. Similar appears the reasoning of G. Holz in his study of 1890.[34] Sievers, in maintaining a close quality, agrees with Jellinek (cf. fn. 10 above) that *$\bar{e}_2$ originates from IE *$\bar{e}i$ and that the loss of i causes the originally open first element to be closed through the effect of i which he designates as: " . . . einen act des i-umlauts."[35]

H. Möller in 1879 by means of examples from a cross section of languages, not all IE, arrived at what appears to be a general linguistic tendency, namely that diphthongs with i or u as a second element proceed from closed vowels, while those with a from open vowels; he claims: ". . . der zweite bestandteil weist uns den weg zur erkenntnis der specifischen artikulation des zu grunde liegenden einfachen vocals . . . ."[36] What is significant for the present discussion is his

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[33]Otto Bremer, "Germanisches E," PBB, XI (1886), p. 6.

[34]Holz, pp. 48-9.

[35]E. Sievers, "Grammatische Miscellen. Von demselben," PBB, XVIII (1894), p. 409.

[36]Hermann Möller. "Epenthese vor k-Lauten im Germanischen als Wirkung des velaren oder palatalen Charakters des Wurzelauslauts," Kuhns Zeitschrift, XXIV (1879), p. 24.

identification of the open quality of Gmc. *$\bar{e}_2$ and *$\bar{o}$. (The general linguistic application and validity of his hypothesis will be discussed in 6.3b below).

Doubtlessly the strongest argument for open quality is to be had from the Romance loans (cf. 5.4). If the *$\bar{o}$-material in either direction is considered first, it is found to be relatively transparent, i.e., Lat. $\breve{o}$, Rom. $\bar{o}$ render the OHG diphthong and conversely Gmc. *$\bar{o}$, OHG uo render the OF diphthong. This points conclusively to Gmc. open *$\bar{o}$ quality, which seems to have been, in fact, the consensus of most scholars,[37] regardless of their opinion concerning *$\bar{e}_2$.

Indeed, the case of *$\bar{e}_2$ appears rather complex. Whereas Lat. $\bar{o}$ is rendered in Gmc. always by *$\bar{u}$, substantiating the open quality of Gmc. *$\bar{o}$, Lat. $\bar{e}$ has a dual reflex in Gmc. *$\bar{e}_2$ and *$\bar{i}$. This is the basis of most theories which stress an originally closed quality, but a later open quality before the diphthongization as a counterpart to *$\bar{o}$. The loan words are grouped relative to their transmission time, i.e., relative to the alleged closed or open period of *$\bar{e}_2$. (Cf. 5.4 below, especially Steinhauser and Lüdtke).

Most scholars assume the closed quality of Lat. $\bar{e}$ and

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[37]Walter Steinhauser in "Zur Diphthongierung von germ. $\bar{e}^2$ und $\bar{o}$," Teuthonista, VI (1930), p. 97., for example, writes: "Beim germ. $\bar{o}$ liegen die Verhältnisse so einfach, dass ein Zweifel seiner Qualität nicht berechtigt ist. Er war seit jeher ein offener Laut."

look for an explanation on the Gmc. side.[38] Mackel sees it simply as a matter of phonetic availability in various Gmc. dialects: WGmc. had no closed *ō and *ē, therefore closed ē was interpreted either as *ē or *ī, the latter being the case in most dialects.[39] But instances of Lat., Rom. ǭ rendered by OHG ē seem to be lacking. Frings assumes an inner Gmc. closed/open opposition which he allocates thus: "Den Gegensatz von ō und ē können wir, ganz grob, in Stammesbegriffe umsetzen. Dann erhalten wir den Gegensatz ingwäonisch-nordisch, dazu das Langobardische, und fränkisch, alemannisch, bairisch."[40]

The case for a closed *ē seems weak indeed. The arguments of those who believe in a progressive opening of an originally closed vowel mainly to accommodate the loan words use them as proof themselves, which seems to be somewhat circular thinking. A cause or rationale for the process of lowering is hardly given. Steinhauser, for example, simply concludes that: ". . . ē² ursprünglich ein geschlossener Laut gewesen ist, der sich um 500 geöffnet hat und dann ebenso wie

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[38]Lüdtke, p. 169., says of the inconsistency of the Gmc. reflection by *ū for Lat. ō, but *ē and *ī for Lat. ē: "Diese mangelnde Parallele lässt sich aus den Verhältnissen im Lateinischen oder aus der Entwicklung im Frühromanischen nicht erklären. Nichts deutet in der Tat darauf hin, dass sich in den ersten Jahrhunderten nach der Zeitwende lat. ē anders als ō entwickelt haben könnte, sondern beide weisen überall parallele Tendenzen auf. Die Abweichung kann also nur durch die besonderen Verhältnisse im Germanischen hervorgerufen worden sein."

[39]Mackel, p. 265.

[40]Frings, p. 81. Both Frings' and Mackel's (cf. fn. 39 above) surmises for the importation of Lat ǭ into OHG seem reasonable possibilities. Theirs or a similar theory may actually have been the case. Perhaps these Lat. ǭ came directly or indirectly via the North; the seemingly dual reflection of Lat. bēta (cf. 5.4) may provide a clue.

das entlehnte rom. ē diphthongiert worden ist."[41] To be sure, he quotes the analogy of the Old Irish diphthongization and arrives finally at Möller's generalization (cf. fn. 36), but how and why this came about he does not say. Lüdtke approaches an explanation when he writes quite matter-of-factly that the opening occurred gradually in an area contiguous to Romance territory.[42]

As regards the e-loans in Gmc. it can be stated that about half (some are doubtful) appear to be derived from Lat. ē and half from ĕ. What is perhaps most striking is the fact that these loans provide the majority of *ē$_2$ instances in Gmc. (except for the reduplicated preterites) and that they are more numerous than four times the number of Gmc. e-loans in Rom. The three Gmc. loans with e in Rom. are of three separate origins, *ē$_2$, *ĕ, and *ē$_1$. As can be expected, the item with *ē$_1$, POHG *bē$_1$ra (OHG bāra) which is generally assigned to Old Franconian, has been fully exploited as proof for the time and place of the PGmc. change of *ē$_1$ > *ā. As a result Franconian is believed to have maintained *ē$_1$ as *ē until approximately the sixth century.[43] On the other hand, it seems that the *ē$_1$ might be validly employed alongside the Gmc. *ĕ and *ē$_2$ as an indication of some features shared by these three since all three are ultimately reflected by OF ie. Thus the loan word evidence seems to point to an open quality rather than a closed one for Gmc. *ē$_2$ and ō.

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[41] Steinhauser, pp. 105-6.

[42] Lüdtke, p. 174.

[43] Mackel, p. 256.

CHAPTER III

THE GRAPHEMIC EVIDENCE FOR THE DIPHTHONGIZATION

3.0 The Graphemic Data

In this chapter the bulk of the pertinent graphemic data that reveal the OHG diphthongization will be presented in detail. Even rare and unusual spellings will be quoted (cf. 3.4). The discussion of their phonetic values and phonemic significance is contained in Chapter IV. Cross references will refer from the graphemic data to their interpretation. First the evidence for the diphthongization of Gmc. *$\bar{o}$ in Franconian, Alemannic and Bavarian is taken up (cf. 3.1 to 3.4); then the evidence for Gmc. *$\bar{e}_2$ (3.5 to 3.7). All spellings are quoted within angular brackets, e.g. ⟨uo⟩; square brackets indicate the presumable phonetic values, e.g. [uo], slanting lines the phonemic analysis, e.g. /uo/. The graphemic evidence is taken from OHG monuments as recorded in secondary sources (cf. Appendix A).

3.1 Early ⟨uo⟩, ⟨ua⟩, ⟨oa⟩ in the OHG Dialects

3.1.a ⟨uo⟩ and ⟨ua⟩ in Franconian

The first fairly certain sign of the diphthongization of Gmc. *$\bar{o}$ in Franconia occurs as ⟨uo⟩ in Muoduni of

a Weissenburg deed dated 711. In the Weissenburg Deeds ⟨uo⟩ does not recur then until more than fifty years later; however, ⟨ua⟩ is frequent. After 765 ⟨ua⟩ outnumbers the old monograph, and from the beginning of the South-Rhenish-Franconian series of deeds (early eighth century) it seems to be the scribal rule for reflecting the new diphthong. Other documents of that area as Otfrid, the Weissenburg Catechism, Palatine Confession, Reichenau Confession, and the St. Gall Cod. 292 confirm this ⟨ua⟩ writing practice.

The so-called Fulda group of deeds is considered as originating either at Fulda itself or in Mainz: Kossinna attributes the deeds to Fulda, but Kletschke mainly to Mainz on the basis that the scribes concerned were employed there. Moreover, Kletschke considers the deeds as copies of the originals made around the year 828.[1] Kossinna reviewed 140 deeds as compared with Kletschke's 65, which to him are certainly Mainz deeds. For both, an ⟨uo⟩ diphthong (Hruodhohi) occurs as early as 754 and within twenty years later is overwhelmingly preferred to the old monograph. Thus for the Franc. area around or shortly after mid eighth century a digraph representation prevails. ⟨uo⟩ appears as early as any other

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[1]Gustaf Kossinna, "Uber die ältesten hochdeutschen Sprachdenkmäler," QF, XLVI (1881), pp. 1-97; Hans Kletschke in "Die Sprache der Mainzer Kanzlei nach den Namen der Fuldaer Urkunden," Hermaea, XXIX (1933) p. 6., believes: ". . . dass die grosse Mehrzahl der zu behandelnden Urkunden nicht Fuldaer sondern Mainzer Ursprungs sind, ja, dass es bis 776 überhaupt keine Fuldaer Kanzlei gibt." And, he cautions, p. 1.,:."". . . die Originale sind verloren und Anwendung unserer grammatischen Ergebnisse auf die Frühzeit ist nur unter den selbstverständlichen Vorbehalten gestattet."

diphthongal sign and doubtlessly is typical of the Franc. area, with the exception of the So.-Rh.-Franc. ⟨ua⟩.

3.1.b Early Alemannic Spellings

In the Rerum alemann. scriptores ex biblioth. an ⟨oa⟩ writing (Roadhart) is recorded for 753. Another one occurs in 754 (Moathelm) and an ⟨ua⟩ in 757 (Puaba). ⟨uo⟩ is found one year after the first ⟨oa⟩ in two St. Gall deeds dated 754 (Puopo) and (Fruochnolfi).[2] The last name appears again with an ⟨ua⟩ (Fruachanolf) in the year 759 of the Neugart Cod. diplomat. Alem. In the first decade of its appearance then, the diphthong in Alem. is rendered by ⟨oa⟩, ⟨ua⟩, and ⟨uo⟩. Diphthongal spellings in favor of monophthongal seem to predominate at approximately the same time as in the Franc. area (c. 765-770). At this time ⟨oa⟩ is as frequent as ⟨ua⟩ which may be pure chance in that the evidence is taken from names from official documents where definite spellings may be associated with certain names. For example, in the fourteen ⟨oa⟩-citations of the St. Gall Deeds between 700 and 762 eleven are in the morph (h)road-, three in boaz- and one in boab-, but the eight ⟨ua⟩-items represent four individual morphs: ruad- five times, muat-, puat-, and guat-. If not already this early, i.e. from the start, then certainly in 15 to 20 years later the ⟨ua⟩ graph becomes the Alem. representative of the new OHG diphthong and remains so.

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[2]However, R. Henning in "Uber die Sanctgallischen Sprachdenkmäler bis zum Tode Karls des Grossen," QF, III (1874), p. 115 cautions: "Zu beobachten ist auch, dass die Originalität beider Urkunden nicht ganz ausser Zweifel steht."

3.1.c Early Bavarian Spellings

In Bav. the Freising Deeds of the year 747 yield two ⟨oa⟩ spellings, Hroadolti and Goatfridi. There are six more occurrences until 760, in which year an ⟨ua⟩ also appears in Puapo. The ⟨oa⟩ continues to be frequent throughout the Freis. Deeds (3.2 below). The first ⟨uo⟩ is recorded in the Salzburger Verbrüderungsbuch in 784 in seven citations. ⟨uo⟩ is not as common as the sign of the diphthongization in Bav., as in Franc., nor as ⟨ua⟩ in Alem.

In some of the literary monuments as the Freising Pater Noster-A and the Emmeram Prayer-A the ⟨o⟩ was matched in frequency by the new diphthong early in the ninth century, but not in other monuments as R, Carmen ad deum,[3] and Exhortatio-A. Citations from works in the latter half of the ninth century, i.e., in Muspilli, the Freising Glosses, and Emmeram Pater Noster show clearly a preference for the diphthong over the monophthong. From the data it is difficult to determine any more closely a time for the predominance of the diphthong. It probably was not in the eighth century as in Franc. and Alem.; then it was certainly in the ninth century and indications are present, though not absolutely convincing, that it may have been within the first half of the century.

3.2 The Spelling ⟨oa⟩

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[3]Although Wilhelm Braune in Althochdeutsches Lesebuch (11th ed. rev.; Halle: Max Niemeyer Verlag, 1949), p. 140 dates the Carmen "nach 864."

3.2.a ⟨oa⟩ in Franconian

Of the diphthongal spellings ⟨oa⟩ warrants special attention in that it represents the customarily postulated "Zwischenstufe" of Braune, Steinhauser[4] and others. The ⟨oa⟩ digraph is generally recognized as appearing in Alem. and in Bav. Contrary to standard descriptions,[5] it does occur in the Franc. data also, even though almost by exception, as follows:

Fulda (Mainz?) Deeds	1 Oadalbercti 775 2 Oadone 775 3 Oadalfrit 776 4 Oadalbercti 779
Weiss. Deeds	5 Chroacus 699?[6] 6 Chroacario 737 7 Chroadmundo 737
Fulda Deeds	8, 9 Oatichoni (2x) 785
Tatian, γ	(10 tuon) 830-40
Weiss. Cat.	(11 guat) 9th c.
St. Gall Cod. 292	12 gioadiger 10th c.

Kletschke explains the four ⟨oa⟩ forms (nos. 1-4) in

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[4]Braune, Helm, and Mitzka, par. 39, p. 36.; Steinhauser, (cf. 4.0.c below.)

[5]For example, Johannes Franck in Altfränkische Grammatik: Laut- und Flexionslehre (Göttingen: Vandenhoeck und Ruprecht, 1909), p. 53., writes: "Eine im Ohd. vorhandene Form oa fehlt hier, . . ."

[6]A. Socin in "Die althochdeutsche Sprache im Elsass vor Otfrid von Weissenburg," Strassburger Studien, I (1883), p. 222 places the undated document in which the name Chroacus appears among the 699 group. There is another early deed of doubtful authenticity, containing the name Uadalgarius, about which Socin writes, p. 115, : "Die Urkunde wurde im Jahre 696 ausgestellt, eine Abschrift ward 825 gefertigt, und hiebei setzte der Schreiber, welcher auch sonst in formeller Hinsicht änderte, sein Datum an Stelle des alten, vielleicht gar nicht vorhandenen; . . ." These two citations could then actually be earlier than the Muoduni of 711 given in 3.1.a above.

the Fulda (Mainz?) Deeds, written by the scribe Weliman, as a trademark of his schooling at the Bav. Freising.[7] On the other hand, if Fulda is held responsible for the citations, as Kossinna holds (cf. 3.1.a), then the ⟨oa⟩ may reflect a practice dating back to the Bav. founding of the Fuldanese monastery (744).

The Weiss. Deeds yield three comparatively early Chroa-forms, nos. 5-7 (they are earlier than any ⟨oa⟩ from either Bav. or Alem. material). The twice noted Oatichoni (nos. 8 and 9) come from two of a group of thirteen documents from Fulda which Socin labels as relevant to the Alsace, whose language he considers as:

> . . . eine Milderung des strengen Hochfränkischen durch den in Elsass so nahe liegenden Einfluss von Weissenburg . . . . Wir haben es also hier mit einem künstlichen Mischdialekt oder besser mit einer künstlichen Mischorthographie zu thun.[8]

Another consideration can be gained from the fact that Socin points out that nos. 8 and 9 occur in documents issued in Paderborn (Patherbrunna), a Saxon bishopric established by Charlemagne who held a diet there a few years later in 777.[9] The place of origin of the documents was then in all likelihood quasi-cosmopolitan and the infiltration of a foreignism as ⟨oa⟩ under such circumstances would not seem too surprising.

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[7] Kletschke, p. 36. [8] Socin, pp. 265-6.

[9] Subsequent diets were held there in 815 and 845; see A. Hauck, Kirchengeschichte Deutschlands, II (Leipzig: J. C. Hinrichs'sche Buchhandlung, 1890), pp. 341 ff., 552, 624.

The Tatian citation (no. 10) represents a correction of an original ⟨oa⟩ spelling.[10] It appears unique in Tatian but it occurs in that section of the Gospel translation done by scribe ſ, who, Moulton writes: " . . . deviated most from the standard."[11] The deviations have been attributed to various reasons to which Moulton alludes and which include the possibility that scribe ſ was a Bavarian or was influenced by the Alem. Walahfrid Strabo.

The citation from the Weiss. Cat. (no. 11) is also a corrected form, that of gȣat (cf. 4.4c). That such a form is possible in Alsatian territory follows from what has been said above of Weissenburg. The St. Gall Cod. 292 citation (no. 12) may quite easily reflect Alem. or Alsatian scribal traits as is indicated by the very heavy ⟨ua⟩ representation in it. Graphically considered then, ⟨oa⟩ does not appear germane to Franc., with the possible exception of the So.-Rh.-Alsatian area where, however, it may not at all be indigenous.

3.2.b ⟨oa⟩ in Bavarian

Kletschke points to Freising for the ⟨oa⟩ (cf. fn. 6 above). The fact that the three Weissenburg entries (nos. 5-7) represent ⟨oa⟩ previous to any Bav. and Alem. citations in the data does not exclude the possibility that Freising cannot be ultimately accountable for them. In the Freis. Deeds (747-848)

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[10] E. Sievers, Tatian (2nd ed. rev.; Paderborn: Ferdinand Schöninsh Verlag, 1892, reprinted 1960), p. L.

[11] William G. Moulton, "Scribe ſ of the OHG Tatian Translation," PMLA, LIX (1944), p. 312.

almost half the citations are written with ⟨oa⟩. The Freis. Isidor and Otfrid Glosses have some (three and seven, respectively) but the Freis. Pater Noster-A and -B have none. Other Bav. documents yield the following ⟨oa⟩ and ⟨ao⟩:

	⟨oa⟩	⟨ao⟩
Freis. Deeds	174X	before 848: Aodalheri Aodalpaldi Aodalscalh Aogo after 848: Aodalhart Aodalrihi Aodalscalch 2X Aodalscald Aodalscalh
Gl. Pa (802-17)95X		hoahon
Gl. R (790-800)	froa	gaomono heertaom
Salzvb. 8th/9th c.	Oadalgaoz Oadalger Oadalhilt Oadalwih Oadilolf Oato Oatilo Roachere	Aodalgoz Aodil Deomaot
Freis. Isidor Gl. (850-75)	soazono	saozono
Archiv XXVII (827)	Oadalrih	
Freis. Otfrid Gl.	boah heizmoati mintfoarit moat 2X roartun	
Otfrid MS F. (868)	boah heizmoati intfoarit moat roartun	
Monu. Boica (770-81)		Aodalpald
Salzvb. (784)		Aodil 2X
Exhort-A (beg. 9th c)		gaotes
Em. Prayer		gaoten
Pass. Deeds		Aodalpald (8th c) Caothari Aospald (9th c)

	⟨oa⟩		⟨ao⟩
Clm. 19410 (9th c)	coamo	Regensb. Deeds (8th/9th c)	Aodalpald
			Aogo
			Aopi
Cl. 18550,1 (9th c)	moase		Raodrud
	poake		Taomgiso
	soano		
	zoagan	Juvav Anhang (827)	Caofstein
Clm. 6325 (9th c)	soazono		
Monseer Gl. (10th c)	ursoachidu		
	vuoacher		
Clm. 19440 (10/11th c)	ursoachidu		
Tegerns. Vg. Gl.	fio tar[12]		
	uozzi[12]		

Schatz fails to consider all the evidence as significant since he concludes that ⟨oa⟩, being dominant in the Freis. Deeds (and Pa), is unique to Freising.[13] He thinks the number of ⟨oa⟩ is so overwhelming that he finds it necessary to justify them by pressure in the graphic system. Schatz notices that whereas ⟨ao⟩ for Gmc. *au is common to all Bav. documents including the Pa (84 ⟨ao⟩), it is only found in two Freis. Deeds, in 793, six times and in 811, twice. He claims that the copyist Cozroh, who is the author of deeds between 824 and 848, substituted the original ⟨ao⟩-writings with the new ⟨o⟩: ". . . zu seiner zeit war o allein berechtigt, dagegen war für altes o noch oa stark im gebrauche,

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[12]Cf. 4.4.c below.

[13]J. Schatz in "Das älteste Salzburger Verbrüderungsbuch," ZfdA, XLIII (1899), p. 15., states: "Daraus erhellt erstens, dass die schreibung oa der Freisinger namen als ursprünglich und regelrecht zu gelten hat, dass heisst, dass man in Freising gewohnt war neben o oa zu schreiben, zweitens, dass Pa und die Freisinger urkunden in dieser hinsicht verwant sind im gegensatz zu allen anderen bair. sprachdenkmälern der älteren Zeit."

so dass er diese bezeichnung nicht zu ändern brauchte."[14] His reasoning suggests that if ⟨o⟩ had not been used for ⟨ao⟩, it may have been used for ⟨oa⟩.

Other scholars as Hundt and Brinkmann deny the possibility of graphic correction on the part of Cozroh. Brinkmann simply compares the Pa which has about half as many ⟨oa⟩ as ⟨o⟩, a situation comparable to the Freis. Deeds between 762 and 780.[15] Wagner in his edition of the Freis. Deeds holds that on the whole Cozroh rendered the deeds without editing, which is born out by comparison with his own deeds. Nevertheless, where this is not the case, Wagner admits some old ⟨o⟩-writings were changed to ⟨oa⟩ especially in the titles or headings.[16] There are two periods in which the Freis. Deeds show a decreased number of ⟨oa⟩, in the years 762-780 (used as argument against Cozroh's interpolations by Brinkmann) and the time after 848. Wagner calls the apparent lessening of diphthongization in the first time span a "... . merkwürdiger Fall, . . . dass die Entwicklung nicht vorrückt, sondern zurück geht."[17] It hardly appears possible that a sound change can revert to a former stage and then again continue in a forward direction. The problem is very likely orthographic. Perhaps this group of deeds written during Arbeo's era (764-83) was treated

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[14] Ibid.

[15] Brinkmann, p. 172.

[16] Albrecht Wagner, Uber die deutschen Namen der ältesten Freisinger Urkunden (Erlangen: Verlag von Andreas Deichert, 1876), pp. 5-6.

[17] Ibid, p. 55.

differently from those before and after it, e.g. the ⟨o⟩ for Gmc. *ō may have been put in by Cozroh or someone else, or the ⟨oa⟩ for Gmc. *ō was inserted into the later ones and ⟨o⟩ in these represents the natural course of the change.[18] Brinkmann's comparison of that group with Pa is then not necessarily proof that corrections were not made in the other deeds.

The Pa is part of the "Keronian Glossary" which is a collection of glosses based on a Bav. archetype (no longer extant) of c. 765, the "Freising Abrogans." The Keronian Glossary is assumed by some to be Alem.[19] Others consider it two thirds Alem. and MS a, which is Pa, as Bav.[20] A Bav reworking of the original glossary does exist; it is the "Pseudohrabanisches Glossar" or "Samanunga" (R) which was written in Regensburg about twenty years earlier than Pa. R contains incomparably fewer ⟨oa⟩, only three, two of which are in the morphs toant-. The remaining Bav. documents show

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[18] There is the possibility that neither is the case and that the difference may be morphemic, e.g. phoneme-bound morphs, i.e., in certain names definite or traditional spellings are preferred. It would seem that a more thorough reinvestigation of the Deeds should provide a more satisfactory answer.

[19] See e.g. Helmut de Boor and Richard Newald, Geschichte der deutschen Literatur, Vol. I, Die deutsche Literatur von Karl dem Grossen bis zum Beginn der höfischen Dichtung (2nd ed. rev.; München: C. H. Beck'sche Verlagbuchhandlung, 1955) p. 16.

[20] Rudolf Kögel, Ueber das Keronische Glossar (Halle: Max Niemeyer, 1879), p. xxv.; Schatz (fn. 12 above) places Pa in Freising; Braune, Helm and Mitzka, par. 5, p. 5., assign it to Murbach.

scattered occurrences of ⟨oa⟩ (cf. Bav. word list above), the Freis. Otfrid Gl. having the greatest single representation. Schatz who does not recognize ⟨oa⟩ for Bav. outside of the Freis. Deeds and Pa concludes that ⟨oa⟩ is peculiar to Freising alone.[21] To extract a graph from a system and interpret its significance by frequency of occurrence in all probability does not only yield incomplete but also incorrect information. The Bav. ⟨oa⟩ incidences have been listed alongside the ⟨ao⟩ for Gmc. *ō in order to facilitate the phonemic interpretation (cf. 4.2).

3.2.c ⟨oa⟩ in Alemannic

Schatz attributes the ⟨oa⟩ from the other two parts of the Keronian Glosses, MS b:Ka and Kb and MS c:Ra, to Freising.[22] Outside of these manuscripts the following instances of ⟨oa⟩ are found in the data, almost one-third of which are in the St. Gall Deeds:

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[21]Schatz in "Das älteste Salzburger Verbrüderungsbuch," p. 15., claims: "In den übrigen bair. denkmälern fehlt oa, . . ." Schatz in Altbairische Grammatik: Laut- und Flexionslehre (Göttingen: Vandenhoeck und Ruprecht, 1907), par. 8, p. 18., writes: "Demnach sind die oa in Freising üblich gewesen, die sonst vorkommenden sind so vereinzelt, dass man sagen kann, oa sei nur in Freising gebraucht worden, . . ." cf. fn. 12 above.

[22]J. Schatz in Althochdeutsche Grammatik (Göttingen: Vandenhoeck und Ruprecht, 1927), par. 23, p. 26., writes: "Die zahlreichen oa in den Ker. Glossen . . . können somit nur an den Freisinger Schreibgebrauch angeknüpft werden."

St. Gall Deeds	(763-80)	(781-800)
	Boabo	Hroadfrid
	Boazilane	Hroadgaer
	Boazmanni	Permoatingum
	Boazo	Roadberto
	Hroadberto 2X	Roadhoi
	Hroadbertus	Roadlant
	Hroadgisinchova	Roadpertus
	Hroadharii	Toato
	Hroadhoh	Toromoatingum
	Hroadoinum	
	Roadberto	
	Roadbertus	
	Roado	
Murbach Deeds	Roabach (791)	
	Soaboni (786)	
Neugart Cod. diplomat. Alemanniae	Roado (752-774)	
	Roadpert	
	Moatin (786-797)	
	Boahhēm	
	Moatin (804-822)	
	Roadolf	
	Roadpert	
	Oadal (850-894)	
Rerum alemann. scriptores ex biblioth. Goldasti cura H.C. Senkenberg	Moathelm (753-7)	
	Roadhart	
	Moathar	
	Oadalwart (819-52)	
	Oazo	
Reichenau Monks	Droant (P;780-2)	
	Droant (D;825)	
	Einmoat	
	Droant (Na;880)	
	Troago	
Rb	cauoagida	
	uuoahsun (810-20)	
	uuōafanti[23]	
Gl. Jb	roamilin (9th c)	
Gl. Prag Lobkowitz	hroarnessi (9th c)	
St. Gall Cod. 299	inoadit 2X (9/10th c)	
Cod. Carolsruh St. P.	broah (11th c)	
Cod. Prag	toa (11th c)	
Engelb. Gl.	giploatigan (12th c)	

[23] Cf. 4.4.c below.

Gl. Augsburg	stoat (12th c)
Schlettstädt DLXXXIII	woaffanti (12th c)
Cod. monas. heremit. 32	roſah
(St. Gallvb-Kempten)	Oadalfrid
	Roading
Reichvb.	(815-40)
	Ebarmoat (Ellwangen)
	Einmoat
	Adalmoat
	Oadalman 2X
	Oadal- 3X (Ottobeuren)
	Roadger (Freising)

Aside from the Deeds and the Keronian Glosses in both dialects and the bracketed St. Gallvb. and Reichvb. entries (above), the number of ⟨oa⟩ occurrences in Alem. is slightly greater than that found in the Bav. material which, for its part, is accumulated from fewer sources. It seems that the frequency criterion applied here points to both Alemannia and Bavaria for the ⟨oa⟩ graph.

In trying to isolate Freising as the school preserving the ⟨oa⟩ writing (cf. fn. 11 above), Schatz cites names from Kempten in the St. Gallvb. and names from Kempten, Augsburg, Ellwangen, and Feuchtwangen in the Reichvb (see list above). He considers these areas as peripheral to Freising.[24] He finds the ten ⟨oa⟩ too infrequent and, therefore, it remains relevant graphically only in Freising.[25] Schatz' interpretation

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[24]Schatz in "Das älteste Salzburger Verbrüderungsbuch," p. 13., says: ". . . sie umgeben und isolieren Freising."

[25]Ibid., p. 14., Schatz claims: "Das, worauf es ankommt, findet sich nicht, nämlich überwiegendes oa; die Ellwanger namen mit oa sind eine eigentümliche erscheinung, . . ."

does not appear convincing. He, himself, admits of only one ⟨oa⟩ occurrence in the case of the Freising names, Roadger. He also mentions four ⟨oa⟩ in Weissenburg names: Oadalgis, -heir, -rih, and Hiltimoat, of which he writes: ". . . aber die gleichen namen sind im Reichenauervb. . . . ohne jedes oa."[26] These two factors as well as the other occurrences do not necessarily speak for ⟨oa⟩ for Alem., they certainly do not prove an ⟨oa⟩ monopoly for Freising. (The abundant Freising ⟨oa⟩ nevertheless may be an influential characteristic of an established official deed-language there.) The total evidence points to ⟨oa⟩ in both Alem. and Bav. and possibly in the South-Rhenish section of the Franc. dialect.

3.3 ⟨u⟩ and ⟨a⟩ for Gmc. *ō

⟨u⟩ and ⟨a⟩ are the monographs other than ⟨o⟩ which occur with some, although limited, frequency. The ⟨u⟩ can be expected in late OHG documents, especially in Franconia, where it possibly already signals a new monophthong, e.g. blūdes of the eleventh century Mainz Gl. When the ⟨u⟩ is found elsewhere and earlier its occurrence necessitates a possibly different explanation.[27] Both the ⟨a⟩ and the ⟨u⟩ have not been satisfactorily explicated in the literature. There are several theories concerning their graphic nature, the most common

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[26] Ibid.

[27] Braune, Helm, and Mitzka, par. 40, n. 1, p. 36., suggest: "Verstreut findet sich u für uo (ua) in oberdeutschen Quellen, wobei ungenaue Widergabe vorliegen kann."

being contraction or scribal habit.[28] The ⟨a⟩ spelling is quite decidedly limited in time and place. The ⟨u⟩ spelling seems much more general. They are treated together in the following discussion; this limits the consideration of ⟨u⟩ to the ⟨a⟩ range of time and place.

In the Franc. material there are twenty-three cases of ⟨a⟩, nineteen of these are in the Weiss. Deeds; one in the Strassburg Deeds, Unigrao (designated as a Lat. ablative by Socin;[29] an Adal- citation in Beyer; and uualla from the Paris Vg. Gl. The final two are doubtlessly exceptional, and Unigrao occurs aside of no ⟨u⟩, but the Weissenburg ⟨a⟩ are in deeds containing ⟨u⟩ spellings as follows (the names listed appear with variant spellings in the same time span as indicated in the parentheses to the left of the name. When the name or its variant(s) appear in different time spans, this is shown in parentheses to the right of the spellings; the time spans are identified at the bottom of the list):

⟨a⟩:

(1)	Babuneuilare	-a-1X	-o-1X	
	Radoinus	-a-7X	-o-11X	
				-ua-1X (3)
			-o-1X (4)	-ua-1X (4)
		-a-1X (5)	-o-4X (5)	-ua-3X (5)
	Babo	-a-1X	-o-1X	
		-a-1X (4)		

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[28]So, for example, Socin, p. 267., comments on the Murbach ⟨u⟩ as: "Eine Anzahl durch den Abschreiber wohl erst hereingebrachter Formen mit blossem u . . . ." Of the 20 Weissenburg ⟨a⟩ he writes, p. 225: ". . . a . . . kann . . . beim besten Willen nur als anormal gelten."

[29]Ibid., p. 260.

(1) Raderici	-a- 1X			
(2) Badgisingas	-a- 1X		-ua- 1X	
(4) Rading	-a- 6X	-o- 2X	-ua- 1X (3)	
Rahholf	-a- 1X	-o- 1X		

⟨u⟩:

(1) Cruccus	-u- 2X	-o- 7X	-oa- 1X	
Udalrade	-u- 1X			
Udone	-u- 2X			
(2) Mutuinouilari	-u- 1X	-o- 1X		
Cruduino	-u- 1X	-o- 1X		
Udalricho	-u- 1X			
			-ua- 2X (4)	
		-o- 2X	-uo- 2X, -uá- 1X, -úa- 1X: (5)	
(3) Brumagad	-u- 1X	-o- 2X		
Udalharius	-u- 1X			
		-o- 1X (2)		
(4) Udo	-u- 1X		-úa- 1X, -ua- 1X	
		-o- 2X (1)		
		-o- 3X (3)		
		-o- 1X (5)	-uó- 1X, -uá- 3X: (5)	

(1) 695-743
(2) 745-765
(3) 766-779
(4) 780-792
(5) 797-858 (In this span there is one ⟨u⟩ spelling, Uten with no variation and alongside no a spelling.)

The Bav. and Alem. occurrences of ⟨a⟩ are very few. Bav. has two cases of Adalger in the Salzvb. 8th/9th c.; in the same source are at least eight ⟨u⟩: Hrudhelm 2X, Rupo, Tuto, Tutti, Uto, and two unlisted. Among the early entries of the Salzvb. (beginning 784) nine cases of ⟨u⟩ are cited: Udalhart, Tutilo, Tutlaih, Uto and Utto 5X, unaccompanied by any ⟨a⟩ writing. The form gimat is found in the 10th c. Cod. Tegernsee 10 and Pa has five ⟨a⟩. Alem. has a total of six,

all in the Keronian Glossary. The Bav. Pa and the Alem. Ka and b and Ra listings are:

⟨a⟩:

Ka & b	Ra	Pa
za gamezza ('adcommoda')	zo kamezan	za gamezze
fara ('oppido')	fuara	
sano ('concilio')	sóno	
kizomida	kizamida ('decretum')	cazomida
uuohar	uuahar ('usura')	uuohhar
(sotod	satot) ('manticulat')	
zoahqhuomane		za quemane ('adorti')
cf. above	cf. above	za gamezze ('adcommoda')
kikankan		zacangan ('adire')
pihohot	umpihohata	pihahot ('delusit')
kilomo		kilamo ('frequenter')

⟨u⟩:

zukilatot ('advocatus')		zoa caladot
khelotuh ('monilia')	kelatoh	
cruentèm ('cerulèis')		:groentem (⟨k⟩ erased)
fura ('mammona')		
folon	fulon ('effingere')	folom
irmoade	armatæ ('fatigatis')	armoade
unroahlihho	unruhliho ('insoleter')	unroahlihho
kihrorendi		cahrurenti ('motus')
suuazlihho		suzlihho ('suavia')
		uncahrutit ('immobilis')

3.4 Spurious Spellings

A spelling as cruentem ('grünen') of Kb (cf. above) is listed by Kögel as a ⟨u⟩-spelling.[30] On the other hand,

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[30] Kögel, p. 12.

Schindling does not list the ⟨ue⟩-form zikiuuerre ('führen') of Jc as ⟨u⟩ but as ⟨ue⟩.[31] Similarly Hench puts roa ('Ruhe')[32] under ⟨o⟩, but Wüllner ascribes the entry froa ('früh') (R)[33] to ⟨oa⟩. This is because of etymological ordering. The two ⟨ue⟩ and ⟨oa⟩ above are superficially or graphically alike but they proceed from different phonological sources. The ⟨ue⟩ of cruentem rests upon the -ō- of the root *grō- and the -e- of the participle suffix, whereas the ⟨ue⟩ of zikiuuerre is the umlaut spelling of the new diphthong coming from Gmc. *ō. The ⟨oa⟩ of roa is derived from a Gmc. root with ō followed by the glide w and a stem final ō (*rōwō), but the ⟨oa⟩ of froa simply rests on Gmc. *ō. In both sets the first example is the spurious writing, i.e., it looks like the new diphthong but historically it is not. With regard to the diphthongization the phenomenon is generally heeded in descriptions but only given cursory attention. Braune, Helm, and Mitzka describe it thus: "uo, ua im Wurzelauslaut unmittelbar vor a, e, i der Endung haben seit dem 9. Jh. auf dem ganzen Sprachgebiete den zweiten Teil des Diphthongs o (a) aufgegeben . . . das übrig bleibende u . . . ergibt mit dem Endungsvokal die scheinbaren Diphthonge ua, ue, ui, ..."[34]

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[31]B. Schindling, Die Murbacher Glossen (Strassburg: K. J. Trübner, 1908), p. 16.

[32]George A. Hench, The Monsee Fragments (Strassburg: K. J. Trübner, 1890), p. 101.

[33]Ludwig Wüllner, Das Hrabanische Glossar und die ältesten bairischen Sprachdenkmäler (Berlin: Weidmannsche Buchhandlung, 1882), p. 9.

[34]Braune, Helm, and Mitzka, par. 40, A. 4, p. 37.

These spellings appear to exist in an infinite variety and in all dialects,[35] but for the most part they allow systematization. The following groups are arranged according to graphic sequence and can be considered:

(1) The ⟨C V (V) C⟩ type, where one or two vocalic symbols appear between consonants or between consonant and pause:

gimat	Clm. 18140 (11th c)
cruentem	Kb. (c. 800)
luvnga	Clm. 18140 (11th c)
moita	Tegerns. Vg. Gl. (11th c)
gemugte	Cod. Einsidl. 155 (11th c)

(2) The ⟨C V V V C⟩ type, where three vocalic symbols are written between consonants. One of these vowel symbols may represent a semi-vowel:

stuoal	Monseer Gl. (10th c)
gimuoan	Clm. 18140 (11th c)
muoungun	Clm. 18140 (11th c)
kapluait	Rb. (9th c)
muohta	Notker (1022)
glðiant	Bav. Paris Gl. (11th c)
plugentin	Monseer Gl. (10th c)
unrohe	Fulda Deeds (791-800)
uierfiuozon	Würzburg Conf. (9th c)

(3) The ⟨C V V V C⟩ type where three vocalic symbols are written between consonants. At least one of the vowel symbols must represent a semi-vowel:

bluouuent	Williram (1060)
bluoient	Williram (1060)
muohet	Notker (1022

Among examples of the ⟨C V (V) C⟩ type gimat, a verbal adjective from the verb gamōjan ('agitare'), is found with ⟨o⟩ in the Cod. Monac. 67, 9c. Besides cruentem (see above) there is roa in which the "orthographic diphthong" ends the

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[35] The data are extracted from the sources listed in Appendix A and from Bremer, "Germanisches E," pp. 61-3.

word (see above). Forms as guetes of the ninth century Reichenau Conf. or gisuenen ('consiliare') of the ninth century Lorsch Conf. are explained as cases of assimilation, whereas chuili ('kühl") Tegerns. Vg. Gl. (11th century) is listed as an umlaut form by Braune, Helm, and Mitzka.[36] Other examples show a vowel plus another vocalic element: luvnga ('mugitus') is a noun formed by a -ung suffix (*hlō-unga); moita is the third pers. sg. pret. indic. of mōjan ('molestare'); and gemugte is the past part of gamōjan.

Besides stuoal ('Stuhl') of the second type there occurs Ruaodho of the Reichenauer Mönche which is difficult to explain etymologically since this form, as stuoal, is a reflex of a form which has originally only one organic root vowel. gimuoan is the infinitive of the -jan verb (above 'agitare'); muoungun is the dat. pl. of the noun muounga ('infestatio'); louu in the Clm. 14456, eighth century, which is the first pers. sg. pres. indic. of hlojan ('brüllen') may be another example (unless <uu> equals /w/). kapluait, the past part. of blojan ('blühen'), and muohta, the first pers. sg. pret. indic. of mōjan, constitute two additional examples of the <C V V V C> type; the same two roots form the samples of the third type, <C V V V C>. The remaining second type examples include gloiant, the third pers. sg. pres. of glojan ('glühen'), plugentiu, the nom.-acc. pl. neut. of the pres. part. of blojan and the noun unrohe ('Sorglosigkeit').

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[36]Braune, Helm, and Mitzka, par. 40, 2 & 3, pp. 36-7.; see also Schatz, Althochdeutsche Grammatik, par. 23, p. 26.

The gioadiger ('ditare') of the St. Gall Cod. 292 (cf. 3.2.a) can also be mentioned here. The final sample of the group, uierfiuozon ('vierfüssig') of the Würzburg Conf. as well as apauuiorit (÷vuiorit) ('deuexit') of Tegern. Vg. Gl., 11th c. signal umlaut.

3.5 Spellings for Gmc. *$\bar{e}_2$.

3.5.a Franconian Spellings

For Franc. Brinkmann cites a diphthongal writing ⟨ie⟩ for Gmc. *$\bar{e}_2$ as early as 772 in Lorsch.[37] This is the earliest appearance of a digraph beside the monograph ⟨e⟩. In the ninth century the digraphs begin to outnumber the spellings for the old monophthong. Tatian has an ⟨ee⟩ form in see, acc. pl. masc., and the Lex Salica in heer ('hier'). ⟨ie⟩ is the most widespread spelling. Beside it ⟨ia⟩ is found in one Franc. and two So.-Rh.-Franc. confessions (Lorsch, Palatine, Reichenau), and in Otfrid where ⟨ia⟩ is the main spelling. In addition there are two obscure ⟨ia⟩-citations in miaden (written ⟨mk:d:n⟩) in the glossary Cod. Vat. Reg. 265, 10th/11th c.; in a deed name, Wialtrud; and in various pronominal forms:[38] sia, acc. sg. fem. Isidor, thia acc. sg. fem. Weiss. Cat., thia, acc. sg. fem. and nom.-acc. pl. masc. Ludwigslied, and dian, dat. pl. Cod. monas. heremit. 303. ⟨io⟩ occurs five times in the glossaries, in Otfrid by assimilation, and once in the

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[37] Brinkmann, p. 173, quotes from J. Welz, 1913.

[38] ⟨ia⟩ occurs in Tatian in pronominal forms as sia, thia, etc., only. See. 3.7.

Ludwigslied as hio (cf. 3.7). Whether the singular eo-spelling found in the Weiss. Cat. in the word huueolih is a valid consideration is very doubtful (cf. 3.7).

The spelling ⟨ea⟩ is rare in Franc. It, nevertheless, is the predominant representative of Gmc. *$\bar{e}_2$ in the Isidor (42X). The Franc. glossaries and deeds have no trace of it. Scribe γ of the Tatian, according to Moulton, may have originally used ⟨ea⟩ in some later corrected words (cf. 3.6.a below). The sea of the Lex Salica, thea of the Weiss. Cat., as the dheasa of Isidor belong to the pronominal group to be considered in 3.7.

3.5.b Alemannic Spellings

⟨ea⟩ is, however, typical of Alem. It appears alongside the receding old monograph and the increasing ⟨ia⟩-spelling. Around 800 ⟨e⟩ is still well represented in Ra and Kb (both of the Keronian glossary) and throughout the material there are scattered examples of it, but ⟨e⟩ was superseded by a diphthongal spelling probably early in the ninth century if not already before then. One ⟨ee⟩ writing, dee ('qui') nom. sg. masc., is cited for Ra (cf. 3.7). In the early monuments ⟨ie⟩ forms are sporadic, whereas they are the rule in Notker. The digraph ⟨io⟩ is in Wiolandus (781-800) of the St. Gall Deeds and in some nine citations from the glossaries. ⟨eo⟩ seems to be uniquely Alem. The Schlett. Glosses have five, and the Cod. Stuttgart theol. et phis. fol. 218 yields three occurences of it. Fasbender cites from Piper the name

Weolant.[39] Finally, there is a kiskeorti in Rf.

The multiphthongal spellings are restricted in the main to two of the three dialects, Alem. and Bav., and in Bav. they occur only in pronoun forms (cf. 3.7). The non-pronominal citations found in the Alem. material are: farlei^{a}z of Rd (8th/9th c.); cheien of the Cod. Turicensis c 164 (date?); einf^{i}eori of the Cod. Selestadensis (12th c.); and piheialt of the Benedictine Rule (800-4).

3.5.c Bavarian Spellings

Bav., as might be expected, retains the monograph to quite a representative degree. It also has six ⟨ee⟩spellings: zeerida in the Emmeram Gl. 14747 (10th c.); skeero in the Cassel Gl. (9th c.); farmeez and ceeri in R. (9th c.); Eepo in the Freis. Deeds; and thee, nom.-acc. pl. masc., in Clm. 19440 (10th/11th c.). The Glossary R (790) has only ⟨e⟩ and ⟨ee⟩ forms, but the Freis. Deeds list an ⟨ea⟩ in Freaso as early as 809. Bav. has, besides, fourteen ⟨ea⟩ spellings; excluding the Pa chreach-citation, all are in the deeds (cf. 3.6.a).

⟨ia⟩ is rare; it occurs four times in Muspilli: miaton, miatun, hiar and dia, nom.-acc. pl. masc.; three times in the Clm. 18140: ziari (⟨zkbrk⟩), umpifianch, and umpiviangun; in Clm. 19440: fliad; it occurs as Iapo in the Freis. Deed (837); three times in wia in the Freis. Otfrid; as sia, nom.-acc. pl. masc., in Cod. Clm. 6277; and dia, nom.-acc. pl., in the

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[39]Joseph Fasbender, Die Schlettstadter Vergilglossen und ihre Verwandten (Strassburg i. E.: Buchdruckerei C. & J. Goeller, 1907), p. 63, fn. 3.

Tegerns. Vg. Gl. (cf. 3.8). Both ⟨ea⟩ and ⟨ia⟩ are generally considered Alem. graphs. For the graph ⟨io⟩ there are only two citations: Clm. 18140 gives anagigiongun and chion is in the Clm. 19440.

The earliest citation of ⟨ie⟩ is Chriechesstat of the Freis. deed of 793. From the start, except for the Freising ⟨ea⟩ (cf. 3.6.a), it appears to be the common diphthongal reflex for Gmc. *$\bar{e}_2$ and it outnumbers the old monograph ⟨e⟩ probably sometime within the first half of the ninth century. In a Freis. deed between 798 and 808 there is a Kyesinga, and Jepo occurs in one for the year 842.

3.6 ⟨ea⟩; ⟨ei⟩ and ⟨i⟩ for Gmc. *$\bar{e}_2$

3.6.a ⟨ea⟩ Spellings

In Franconian the ⟨ea⟩ appears as follows:

Isidor (end 8th c)	dhea, nom.-acc. pl. masc. 19X dheasa, acc. sg. fem. firleazssi hear 22X
Weiss. Cat. (c. 790)	thea, acc. sg. fem.
Lex Salica (9th c)	sea, acc. sg. fem.
Tatian, γ (830-40)	(uorliez) (gispien) (mieta) ((uorliez)) 4X ((forliez)) ((gifiel))

The Bavarian instances of ⟨ea⟩ are:

Freis. Deeds (772-809)	Freaso
Freis. Deeds (814-28)	Freaso 5X

Freis. Deeds (836-49)	Kheanperc Wealant
Freis. Deeds (date?)	Cheanperc Eapo Slearseo
Monu. Boica (890)	Cheanpach
Pa (810-17)	chreah
Clm. 18550,1 (9th c)	dea, fem. sg. acc.
Clm. 19417 (9th c)	dea, fem. sg. acc.
Clm. 9534 (10th c)	sea, nom.-acc. pl. masc.
Clm. 19440 (10th/11th c)	dea, fem. sg. acc.
Monsee Frag. (beg. 9th c)	dea, ea, nom.-acc. pl. masc. 50X feal fealun hear 11X heaz 2X forleaz forreat scead arsceat

The Alemannic instances of ⟨ea⟩ are:

Ka (end 9th c)	chreach (i) 2X
Kb (c. 800)	meatð pifeal
Rd (eighth/ninth c)	fearu inneaton kazeasi kimeate meatu pifeangun zearrer
Ja (9th c)	meata sleaz
Jb (9th c)	farleaz kimeate meata meatu pifeangun zearrer 6X

Jc (9th c)	f^{e}aru uuealange
St. Gall Cod. 299 (9th/10th c)	zeagil
Cod. Cheltenham 18908 (9th/10th c)	dea, acc. sg. fem.
Gl. Paul (date?)	entfeanc keangun kehealt uzkeanc
Frag. St. Pauli	anafeal anagibleas
Benedictine Rule (800-04)	dea, nom.-acc. pl. masc. farleazzi keanc meas
Murbach Hymns (810-20)	dea, nom.-acc. pl. masc. deam, dat. pl. peatres

In the case of the two literary monuments which contain a concentration of ⟨ea⟩ spellings, the Franc. Isidor and Bav. (mixed with Franc. features) Monsee Fragments, the majority of ⟨ea⟩ are taken up by the pronoun die and the adverb hier. The only other ⟨ea⟩ form in Isidor besides the pronominal dheasa is the verb firleazssi, third pers. sg. pres. subj., which is matched by firleizssi. Except for this last verb spelling, then *$\bar{e}_2$ is exclusively rendered in Isidor by ⟨ea⟩ which, however, is in the main limited to two roots (for ir ('er') cf. 3.7). Braune, Helm, and Mitzka, and Hench consider the ⟨ea⟩ as a regularity in the text, whereas Brinkmann

considers the possibility of it being an Upper German feature.[40] The ⟨ea⟩ of the Monsee Frag. are distributed among four additional roots. Besides, eight cases of the old monophthong (omitting er) occur in these fragments, all of which except huue, slefun and feratagum (< Lat. ē) are reflected also by ⟨ea⟩. The sizable number of ⟨e⟩ writings attest to the fact that the Monsee Frag. are a transcription done in Bav.[41]

In the Franc. data the first three items in single brackets of the Tatian scribe γ are recorded by Moulton as "probably" having originally been written ⟨ea⟩; the last three with double brackets he considers as "uncertain" for original ⟨ea⟩ spellings.[42] These again are peculiar to scribe γ and may evince his non-Franc. dialectal habits (cf. fn. 9).

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[40] Braune, Helm, and Mitzka, pars. 35 and 35, No. 1, p. 32; George Al Hench in "Der althochdeutsche Isidor," QF, LXXII (1893), p. 111 uses it as dating criterion for the end of the eighth century; Brinkmann, p. 173.

[41] E. Sievers in "Kleinere Beiträge zur deutschen Grammatik: die redupliciertен Praeterita," PBB, I (1874), p. 507., lists the forms which have short e instead of long in Isidor: "antfene 2X, bifenc, chifenc, infenc;" and in the Monsee Frag.: "antfengun, fengin, infenc, kafenc, kafengin, kafengun, uuidarfenc, genc 10X, kenc 2X, gengun 3X, kengun 3X, and arhenc." Sievers suggests (p. 505) that these forms may have originally had short vowel stems. R. Loewe in "Das starke Präteritum des Germanischen," Kuhns Zeitschrift, XL (1907), p. 328 thinks these e to be cases of vocalic reduction before consonant clusters.

[42] Moulton, "Scribe γ of the OHG Tatian Translation," fn. 63, p. 318; cf. also Sievers, Tatian, p. L.

3.6.b ⟨ei⟩ and ⟨i⟩ Spellings

The other two graphs to be listed are ⟨ei⟩ and ⟨i⟩. Franconian yields these:

⟨ei⟩		⟨i⟩	
Beyer	Leiznih Weildistein Weinheim	Lacomblet (1080)	(Nile)
		Beyer	(Liba) (Rigila)
Gl. Xanti (9th c)	gemeidan		
		Cod. Carolsruh-CLXXVIII (9th c)	kemiten
Köln Gl. cc (10th c)	breif fleit		
		Köln Gl. ccII (11th c)	fliz
mp. th. f. 18 Würzburg (10th c)	zeigliniu		
		Paris Vg. Gl. (11th c)	gemitider inginc kine
St. Gall Cod. 292 (10th c)	meide		
		Frankfurt Gl. 139	anagelizun
Paris Vg. Gl. (11th c)	beueigen	Isidor (end 8th c)	ir, 3rd pers. sg.masc.nom.
Frankfurt Gl. 139 (12th c)	breit	Tatian, (830-40)	hir 2X
Isidor (beg. 9th c)	firleizssi		
Otfrid (868)	reitun		
Fulda Conf. A (10th c)	(ni)furleiz (ni)heilt intpheing		
	forlę^{i}zi gihe^{i}zi		

For Alemannic:

Neugart Cod. diplomat. Alem.	Teidgōz Theitker	Jb (9th c)	(firro) (firrota)
		Jc (9th c)	(uuillachan)
Necrol. St. Blas. (date?)	Teitericus	Rd (8th/9th c)	(firro) (firrota)
Kb (c. 800)	meida	St. Gall. Cod. 136 (9th c)	di, nom.-acc. pl.masc.
Ra (802-17)	kreihisc		

⟨ei⟩		⟨i⟩	
St. Gall Cod. 299 (9th/10th c)	speigela wībzeirda zeigal	Cod. Mellicensis (12th c)	inuil
St. Paul Cod. XXC d/82 (10th c)	gemeiton gimeitit gimeitta	Augs. St. (date?)	hir prister
Engelb. Gl. (12th c)	steizun	Murbach Humns (810-20)	anfingi
Cod. Turicensis c59 (date?)	zeigal	Notker Psalms (11th c)	si, nom.-acc. pl. masc. 61X sī, nom.-acc. pl. masc. 92X
Notker Psalms (11th c)	irheingin	Notker Boetius (11th c)	gezirten vīle

Bavarian shows:

Clm. 6325 (9th c)	gageingin	Salzburg Deeds	Chimincgouue Chimincsee (10th c) 2X
Viennese Genesis (11th c)	heiz 4X	Clm. 19440 (10th/11th c)	pifil pifinc
Vorauer Hs. (11th/12th c)	geinch heiz reif vei veigen	Clm. 18140	anabizin arginc (di andra) ⟨dandra⟩ di, nom.-acc. pl.masc. 2X giprivida priciare uuiuilo zigales zirida
	blēis inphēi		
	geī		
Phys./Karj/Ps (12th c)	dei, nom.-acc. pl. masc.	Clm. 19450 (11th c)	ti, nom.-acc. pl. masc.
		Clm. 14689 (11th/12th c)	mitente
		Clm. 18547, 2	(instiz) ⟨tlz⟩ (uuilihi)⟨yylllhl⟩
		(11/12th c) Par. Nac 241	einchrigilicho
		(beg. 9thc) Monsee Frag	ir, 3rd pers.sg. masc. nom.
		(11th c) Viennese Genesis	hiltin

In the Franc. citations the three ⟨ei⟩ place names from Beyer are also cited with ⟨ie⟩. Franck suggests Wöllstein as the NHG reflex of Weildistein,[43] but its etymology seems uncertain. Weinheim is interesting in that the second part of the compound contains the Gmc. diphthong *ai which is written here the same as the supposed reflex of Gmc. *$\bar{e}_2$. The final two words from the Fulda Conf. A are according to Moulton ⟨ie⟩ and not ⟨ei⟩.[44]

The ⟨i⟩ spellings of Lacomblet and Beyer are also unclear. Franck labels Nile (NHG Niehl) "verdächtig,"[45] and both Rigila and Liba have NHG reflexes with /ei/ (Reil a.d. Mosel and Leiwen).

The Alem. forms firro, firrota are reflexes of Lat. ē (cf. 4.6.c). The uuillachen, which Schindling glosses "aus velum,"[46] is suspected by Graff as belonging to the root *wal.[47] The Bav. entries need no added comment here.

3.7 Gmc. *$\bar{e}_2$ in Pronominal Forms

In 2.1 a so-called pronominal group was listed as one of the types in which a reflex of Gmc. *$\bar{e}_2$ occurs. It is

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[43] Franck, Altfränkische Grammatik, par. 42, p. 53.

[44] Moulton, "Scribe Y of the OHG Tatian Translation," fn. 63, p. 318.

[45] Franck, Altfränkische Grammatik, par. 42, p. 53.

[46] Schindling, p. 15.

[47] E. G. Graff, Althochdeutscher Sprachschatz oder Wörterbuch der althochdeutschen Sprache, Vol. I: Die mit Vokalen und den Halbvokalen J und W anlautenden Wörter (Berlin: Nikolai Buchhandlung, 1834), p. 843.

a type, however, about which it is generally agreed that *$\bar{e}_2$ is a secondary development.[48] The nature of the development of the words in this group is described variously; usually it is considered a product of analogic[49] and/or suprasegmental changes.

In considering the pronominal forms the ⟨e⟩ spellings have not been tabulated (cf. Appendix B) because of the complete uncertainty as to whether they represent *$\bar{e}_2$ or not. For example, Hirt describes the progression of Go. þai thus: "Das heisst, dass ai in unbetonter Silbe zunächst zu $\hat{e}^2$ und dann, wenn es neu betont wurde, zu ie geworden sei."[50] On the other hand, Braune, Helm, and Mitzka place the process of ai > $\bar{e}$ under the OHG monophthongization.[51] It leaves the problem of distinguishing the new monophthong OHG $\bar{e}$ from the reflex of Gmc. *$\bar{e}_2$, a distinction which is not evident in the orthography of the OHG MSS. From the later reflexes a distinction can naturally be ascertained, but it seems from this nothing should be categorically said [52] about the OHG pronominal ⟨e⟩

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[48] Van Coetsem, p. 71; Lehmann, Proto-Indo-European Phonology, p. 72; Janko, p. 260.

[49] Prokosch, par. 92, p. 266., writes: "Analogy is a powerful factor in all types of inflection, but it has had greater influence on pronouns than on any other part of speech."

[50] Hirt, I, p. 34.

[51] Braune, Helm, and Mitzka, par. 43, No. 3, p. 39.

[52] However, a specialized observation (i.e., limited to a particular corpus) as Moulton's in "Scribe γ of the OHG Tatian Translation," p. 317, might be justifiable; Moulton concludes: "The vowel in γ's he, the, se is probably identical with what in other words is called Gmc. e_2. The scribes other than γ write this e^2 without exception as ie." he is written nowhere in Tatian with ⟨ie⟩!

as such in these forms. It appears equally speculative to consider a coalescence of ē<*ai with the reflex of *ē$_2$.

The extent of the pronominal group depends upon the etymon attributed to the various forms.[53] The following is an inventory of the words concerned:

1) sie (acc. sg. fem.) as in Tatian
2) thie (acc. sg. fem.) as in Otfrid
3) sie (nom.-acc. pl. masc.) as in Monsee Frag.
4) die (nom.-acc. pl. masc.) as in Lex Salica

5) diem (dat. pl.) as in Rb

6) thie (nom. sg. masc.) as in Tatian
7) ier (nom. sg. masc.) as in Monsee Frag.

8) uuie ('wie') as in Bav. Conf.
compounds of uuie

For numbers one through five ⟨ea⟩, ⟨ia⟩, ⟨ie⟩ (⟨ie⟩) spellings are most generally found. Although the diphthongization of the dat. pl. deictic pronoun is found mainly in Alem., the Franc. material does yield two citations: thien of the Mainz. Conf. and dian in the Cod. monas. heremit. 303. Isidor has form number 2 used in a compound inflection in dheasa which in standard OHG is desa, i.e., without inner inflection. Originally the entire paradigm (NHG dieser) rests upon the combination of the two stems *te/*to and *se/*so, each of which were inflected. Already in OHG de- was generalized in most of the forms.[54]

There are five polyphthongal citations, all Bav:

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[53] The literature concerning the extraction of the pronouns is extensive and involved; see, e.g. Franck, "Der Diphthong EA, IE im Althochdeutschen," pp. 1 ff.; Karstien, pp. 53 ff.; Prokosch, pp. 268 ff.

[54] Braune, Helm, and Mitzka, par. 288, p. 241.

dæa (No. 2), sige (No. 3) and diea (No. 4) from the glossaries Cod. Salisburgensis, Clm. 18550,1 and Clm. 18059, respectively; siae (No. 3) and iaer (No. 7) in the Monsee Frag. The Monsee Frag is, moreover, the only source in which the nom. sg. masc. personal pron. (No. 7 above) is written diphthongally. Besides the iaer-writing, it has for OHG er also ier, aer, and ir and er. Equally limited in its occurrence is the nom. sg. masc. thie (No. 6) which appears in Tatian alone.

The adverb uuie (No. 8) can justifiably be included in the pronominal group in that etymologically it represents an oblique case (instrumental or locative) of the IE pronoun *kue/*kuo which appears in Go. as hve.[55] Gothic has hvaiwa, compounded of possibly the same root with an added IE particle, which is reflected in OHG as (h)wēo/(h)wio.[56] Therefore, the huueolīh of the Weiss. Cat. probably belongs to Go. hvaiwa rather than to hve. The same is true for the Lex Salica weo. hve itself is found in OHG written with the digraphs ⟨io⟩ and ⟨ia⟩. In compounds it is found in the data with such second components as -lange, -lih, -uilo and is spelled ⟨ea⟩, ⟨ia⟩, ⟨ie⟩ and ⟨i⟩.

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[55]Friedrich Kluge and Alfred Götze, Etymologisches Wörterbuch der deutschen Sprache (17th ed. rev.; Berlin: Walter de Gruyter & Co., 1957), p. 859; S. Feist, Vergleichendes Wörterbuch der gotischen Sprache (3rd ed. rev.; Leiden: E. J. Brill, 1939), p. 284.

[56]Feist, Vergleichendes Wörterbuch, p. 281.

CHAPTER IV

PHONEMIC AND PHONETIC INTERPRETATION OF THE GRAPHEMIC DATA

4.0 Interpretation of the OHG Diphthongization Data

The scholars who have concentrated on the several aspects of the diphthongization seem to prefer to explicate the process by means of theories (mainly general), and only secondarily do they refer to graphemic evidence, which was presented in the third chapter. It will become clear that the phonemic implications of their theories are insignificant; some phonetic notions are mentioned, however. The interpretation offered by Wigæt, Hassmann and Steinhauser will, nevertheless, have to be discussed below (4.0.a, b, and c respectively).

In pars. 3.1 and 3.5 the initial evolution of the diphthongization process was traced through the three general OHG dialect groups. The first occurrences of the several graphs were mentioned in order to establish time and place boundaries. Reliance upon graphemic evidence is completely justified and, in fact, a conditio sine qua non for the understanding of a sound change (cf. Ch. 1). Penzl writes: "Indeed the primary material of a historical linguist consists of the written reflexes of languages as transmitted to us, and all synchronic

and diachronic analyses have been based on them."[1] As will be seen in the theories of Wiget, Hassmann, and Steinhauser, this type of evidence has been neglected, to various degrees, in favor of hypothetical considerations. It will be utilized in this chapter with the application of all restrictions necessary for a valid interpretation.

As is commonly known, the actual sound precedes its symbolization in time. The graphic reflexes of the diphthongization, therefore, can provide a chance for absolute chronology with this qualification in mind. There is no way of estimating with any certainty the time lapse between the initial occurrence of a new sound and its first graphic recordings, even in texts which display beside the new digraph the earlier monograph. On the basis of the graphic evidence alone then, i.e., not including loan contact and other forms of evidence, the diphthongization may reach back as early as 700 in the Franconican dialect, which is probably a conservative estimate despite the realization that chancellery documents (which yield the first digraphs in this case) may adhere more closely and longer to the established scribal tradition.

4.0.a Wiget's "Romanische Lautsubstitution"

Wiget does apply graphic interpretation, but apparently distorts it by reverting to a rigidly hypothetical explanation. His graphic substitution theory (cf. 5.3.a) holds

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[1] H. Penzl, "Old High German ⟨r⟩ and its Phonetic Identification," Lang., XXXVII (1961), p. 488; see also par. 2.1, pp. 197-8 in Penzl, "The Evidence for Phonemic Changes."

that the oldest OHG orthographic habits rest on a Latin tradition which often designates diphthongs with simple graphs.[2] The OHG borrowing is then doubly reinforced; it is a graphemic borrowing (the orthography) as well as a morphemic one (the loans), occasioned by Romance contact.

Wiget places the diphthongization in Romance in the fourth/fifth century at the latest, for which he cites the two doubtful inscriptions, uobit, 419 and dieci, 671. For OHG he concludes no absolute but relative time and place when he writes: "Da die lat. Buchstaben o, e bei der Ubernahme der lat. Schrift zur Widergabe deutscher Wörter im 8/9. Jh. auch uo, ie bezeichneten, so konnten sie auch sehr gut für deutsches uo, ie verwendet werden . . .; für die Chronologie des ahd. Wandels . . . geben sie keine Anhaltspunkte. Er kann schon in vorliterarischer Zeit eingetreten sein."[3] For Wiget, then the OHG diphthongization is "romanische Lautsubstitution"[4] which he claims spread in a south-north direction analogous to the OHG consonant change.[5]

Phonetically his theory also seems unsound. Brinkmann argues against it thinking that if Lat./Rom. e and o represented the OF rising diphthongs (Wiget does not specify whether

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[2]Wilhelm Wiget, "Altgermanische Lautuntersuchungen," Eesti Vabariigi Tartu Ulikooli Toimetused, Acta et Commentationes Universitatis Dorpatensis; B, Humaniora, II (1922) p. 22 ff.

[3]Ibid., p. 22.

[4]Brinkmann, p. 178, calls Wiget's theory thus.

[5]Wiget, p. 25.

they were rising or falling at the time of contact) then they could not possibly also reflect the OHG ie, uo which he considers as falling (cf. 6.3.c below). Secondly, neither Brinkmann nor Steinhauser[6] accept the idea that ⟨e⟩ and ⟨o⟩ necessarily represented the diphthongization's end-product /ie/, /uo/. Too much graphic residue remains, especially the more frequent ⟨oa⟩ and ⟨ea⟩, which, according to Brinkmann and Steinhauser, should fit temporally somewhere between the old monograph and the final new digraph (cf. 4.0.c below).

Wiget is aware of the actual digraph spellings as ⟨ea⟩ but he denies the possibility of any practical application of them in his theory that maintains, e.g., that Lat./OHG ⟨e⟩ has the value of ". . . zweigipfliges ẽ (oder besser schon ie)."[7] He formulates this theory with total neglect of the overt evidence. That ⟨ie⟩ does prevail later, Wiget considers as graphic normalization and the tendency to write phonetically, both of which stem from a Carolingian orthographic reform;[8] for him this ⟨ie⟩ representation is a fact which is independent of the real diphthongization process.

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[6] Brinkmann, p.178; Steinhauser, p.92.

[7] Wiget, pp. 26 and 28; his 'monograph equals diphthong premise' reduces his graphic interpretation to a stalemate, a position which he avoids in his more realistic ⟨ao⟩<Gmc. *au discussion, cf. his p. 26.

[8] Ibid., p. 28. Steinhauser, p. 96 notes, however, that in Franc. there are cases of ⟨ie⟩ and ⟨uo⟩ writings already prior to the Carolingian reform.

4.0.b Hassmann's Interpretation

Hassmann, however, is occupied with the actual spellings. For him ⟨uo⟩, ⟨ie⟩ are undeniably Franc. where they appear already in the earliest MMS. He considers ⟨oa⟩ Alem. and thinks it phonetically proximate to the old monophthong. ⟨ao⟩ is an early sporadic Bav. writing which, he maintains, is not necessarily a sign of scribal error, but may be one of overlong quantity or of the later Bav. ⟨ou⟩.[9]

Hassmann dissects, so to speak, the sound change in several ways. For Franc. he thinks uo and ie only represent an intermediate state of the change of Gmc. *ō to Franc., East-mid-Germ., NHG ū (*ē to ī). For Bav. on which his interest is focused, Hassmann proposes a bipartite diphthongization. Mid. and So. Bav. experience a diphthongization in which the final stage is uo (ie). This, he says, was prompted by Romance influence in POHG. The same stage was achieved later (in the ninth century) south of the Danube by Franc. infiltration coming from the West.[10] Later diphthongization took place in the northern part of the Bav. area, proceeding from the section around Regensburg, and resulted in the diphthongs ou, ei.

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[9]Hubert Hassmann, "Entwicklungsgeschichte der Zwielaute in den Mundarten der bayrischen Oberpfalz und Westböhmens," Teuthonista, V (1928/29), pp. 190 and 192.

[10]Ibid, p. 191. Brinkmann, p. 179, rejects the assumption underlying the double appearance of ie, uo in Bav. by denying Romance influence at that time (pre- and early OHG) and particular place.

As a partial explanation for this twofold diphthongization on Bav. territory (/ie/, /uo/; /ei/, /ou/) Hassmann cites Meyer-Lübke's psychological reaction theory: "Der Uebergang von der Mittellage zu dem einen Extrem hat bei einem Teil derer, die diese neue Aussprache hörten, zum anderen Extrem geführt."[11] The ⟨o⟩ and ⟨e⟩ which were retained in early Old Bav. to a greater extent than in the other dialects Hassmann describes as "zweigipflig."[12]

4.0.c Steinhauser's Theories

The study of Steinhauser, ("Zur Diphthongierung von Germ. $\bar{e}^2$ and $\bar{o}$") is based extensively on theory and, therefore, makes little use of graphic evidence.[13] Like Hassmann, Steinhauser segments the OHG diphthongization and spans the sound change between two monophthongs, i.e., from *$\bar{e}$ to $\bar{i}$ and *$\bar{o}$ to $\bar{u}$, in which the diphthongization is only a stage in between. But, whereas Hassmann is concerned with two connected levels, Steinhauser considers three independent ones:

1) $\bar{e}^2$, $\bar{o}$ > ęa, ǫa
2) ęa, ǫa > eə, oə > ie, uo
3) ie, uo > $\bar{i}$, $\bar{u}$[14]

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[11]W. Meyer-Lübke, Einführung in das Studium der romanischen Sprachwissenschaft (3rd ed. rev.; Heidelberg: C. Winkler, 1920), par. 71.

[12]Hassmann, p. 192.

[13]Steinhauser, p. 88, explains the objective behind his methodology: "Vielmehr soll gerade in der vorliegenden Untersuchung gezeigt werden, wie ich mir eine psychologische Begründung, die durch Berücksichtigung des Wesens und der zeitgeschichtlich bedingten Einstellung der redenden Menschen den sprachlichen Erscheinungen näher zu kommen trachtet."

[14]Ibid., p. 94.

The first level, according to him, was experienced commonly by Rom. and Germ. which bordered Rom., namely Franc. He times this change at as early as possibly the sixth century on the basis of a single loan borrowed before 750, OHG phruonta for which he postulates a Romance *proénda. The -oé- had to be assimilated by Gmc.*ō. Germanic must have retracted the accent to -óə-, and the Gmc. *ō in being able to render the Rom. sound must have already been diphthongal, e.g. ǭᵊ, ǭᵊ.[15]

The second level was achieved in Franc. independently of Rom. and independently of the first level. Instead, he associates the change of Franc. ęa, ǫa > ie, uo with the closure of *ē² and *ō which supposedly occurred in OS, OE and ON in the eighth century. Steinhauser explains: "Ich nehme an, dass die germ. Langvokale ē² und ō durch eine im 8. Jh. aufkommende Neigung zur Straffung der Mundmuskulatur im As. (und anschliessend wahrscheinlich auch im Ags. An.) zu geschlossenem ē und ō geworden sind und dass dieselbe Welle bei ihrem Vordringen nach Westen und Süden die frk. und obd. Diphthonge ęa, ǫa über ėa, ǫ́a zu ie, uo emporgetrieben hat."[16] For seventh and eighth century Rom. ǫ́a, ǫ́a, Steinhauser assumes an earlier stage of ǭᵊ, ǭᵊ which he places in the fourth and fifth centuries., i.e., soon after the lengthening in free syllable. The progression toward íe, úo Steinhauser holds to be a result of the Carolingian Reform.[17]

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[15] Ibid., pp.93-4. [16] Ibid., p.97. [17] Ibid., p. 91

Steinhauser's theses suffer mainly from lack of evidence. Brinkmann thoroughly refutes his explication of the Rom. ea, oa-stage and adds that there are no data to substantiate it.[18] For the lack of OHG oa-citations in Franc. Steinhauser himself offers the reason that this is because of maintenance of a definite orthography, by which he implies that it could not render oa as such; he claims: "Hier (im Fränk.) fehlt die Zwischenstufe oa aber nur aus dem Grunde, weil im deutschen Nordwesten zu der Zeit, als man sich vom rom. Schreibgebrauch lossagte, die Stufe uo bereits erreicht war."[19] Steinhauser obviously follows the Wiget idea that Lat. and therefore Rom. orthography did not usually signal diphthongs. Furthermore, although Steinhauser speculates as to whether Franc. had uo before 750 because: ". . .eben hier das Zeugnis der Zwischenstufe oa fehlt," he concludes nevertheless: "Doch dürfte der Wandel von oa > uo auch im Fränk. nicht viel weiter zurückliegen, weil wir ihn im Alem. in der Zeit zwischen 760-80 beobachten können."[20]

As a last resort to substantiate an oa-level Steinhauser gives a psycholinguistic explanation for the missing ⟨oa⟩ evidence. He claims that the average speaker could hardly distinguish the diphthong phonetically but rather thought he heard the old monophthong and, therefore, the diphthong is rendered by monophthongal graphs.[21] Brinkmann says that the

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[18]Brinkmann, p. 180. [19]Steinhauser, p. 92.

[20]Ibid. [21]Ibid, p. 107.

oa-evidence is also lacking for Bav., and that Alem. alone provides it, but in Alem. a final ia and ua rather than ie, uo are attained. Brinkmann states: "Da ist für Steinhausers Annahme von zwei Diphthongierungsstufen kein Raum."[22] To be sure, the entire oa-level of Steinhauser appears to be built on pure speculation. This serves as an example for what commonly seems to be the difficulty, namely that assumptions and broad generalities have been used to bypass strict observation of more complete data. It is the object of the following sections to reinvestigate the material, and thereby provide an insight into the problems introduced here as time, place, and levels.

4.1 ⟨o⟩ and ⟨ao⟩ for Gmc.*ō

4.1.a ⟨o⟩

OHG ⟨o⟩ and ⟨e⟩ are usually understood to be symbols with monophthongal value representing OHG /ō/ and /ē/. Wiget (4.0.a above) considered them diphthongs; within the confines of a specific corpus, however, their value may be found to be different. So, for example, Sonderegger in discussing the Alem. Deeds from St. Gall in conjunction with their "Vorakte" concludes that ⟨o⟩-spellings as Rodruda (764), Rohpert (782), Rodinc (799), Rodpert (805), Rodóla (811), and Rodalo (838) of these "Vorakte," which are matched by corresponding diphthongal writings in the Deeds, do not represent the monophthong

[22]Brinkmann, p. 182.

OHG /ō/. Accordingly, their /o/ is to be considered he writes, as: ". . . eine im Zuge der Verkürzung oder Schwächung von zweigliedrigen Namen vorsichgegangene Monophthongierung."[23] Although the evidence is by no means conclusive, the possibility of such an interpretation must be admitted.

Another case is the ⟨o⟩ value in the Bav. Freising Deeds which some scholars believe underwent editing by Cozroh. Schatz maintains that ⟨ao⟩<Gmc. *au was changed to ⟨o⟩ (cf. 3.2.b). To be sure, the many ⟨o⟩ for Gmc. *au are irregular for Bav. as early as 747 and onward to the beginning of the ninth century.[24] In connection with this might be noted Wagner's concern that ⟨o⟩ for Gmc. *ō seems to increase rather than decrease in the period 762-780.[25]

OHG ⟨o⟩ representing Gmc. *ō is generally assumed to be a mid back vowel [o:] . The possibility of dialect variations in the coloring of the [o:] must be admitted. For example, it is conceivable that the Bav. [o:] may have differed from the Franc. [o:] . From the graphic evidence it appears that the old (<Gmc. *ō) and the new OHG /ō/ (<Gmc. *au), though

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[23] S. Sonderegger, "Das Althochdeutsche der Vorakte der älteren St. Galler Urkunden, " Zf Mafg. XXVIII (1961), p. 269; Weinhold in Bairische Grammatik (Berlin: Ferd. Dümmler's Verlagsbuchhandlung, 1867), par. 53, p. 63., cites the name Chonrat as a word still written with ⟨o⟩. Perhaps, as in the "Vorakte," this ⟨o⟩ writing may symbolize a new monophthong; the NHG form retains a monophthong.

[24] See Braune, Helm, and Mitzka, par. 45. n. 2, p. 42.

[25] See fn. 17 and 18 of 3.2.b.

not merging, were phonetically close in Bav. The Bav. ⟨ao⟩ for ⟨oa⟩ (cf. 3.2.b) might indicate this. In Bav. the first digraph spelling is ⟨oa⟩; the reflex of Gmc. *ō split into two different elements, the first with the quality of the original long vowel. The ⟨o⟩ of the diphthong may be quite different from the Gmc. *ō, but it must be closer to it than the first element of the Franc. /uo/. Whether Gmc. *ō broke into [oa] in one dialect and [uo] in another, thus warranting phonetically two different original [o:] pronunciations, can only be a matter of speculation. The graphic evidence would point to it, but the possibility of incomplete evidence must be admitted (cf. Steinhauser, fn. 20, 4.0.c above). More reliable is comparison with modern dialect situations which would make a variation in [o:] pronunciation a reasonable possibility. (The ⟨o⟩ as [o:] is further described as part of the total pattern, cf. Chapter VI).

4.1.b ⟨oo⟩ and ⟨ee⟩

In the Bav. glossary R besides ⟨oa⟩ and ⟨ao⟩ the digraph ⟨oo⟩ is used 21 times. Otherwise R maintains the old ⟨o⟩ 76 times and has 16 ⟨ó⟩. ⟨oo⟩ writing in Franc. and Alem. is less frequent by far and about the same in both. The situation is similar for ⟨ee⟩ which occurs with the ratio 6:2:1 for Bav., Franc. and Alem. respectively. The so-called "tenacity" to ⟨o⟩ in Bav., the fact that ⟨oa⟩ is Bav., and the appearance of a graphic diacritical distinction between ⟨o⟩ and ⟨ó⟩ in R would seem to allow the consideration of ⟨oo⟩ as a possible diphthongal

spelling, in Bav. at least. However, when considering the graphemics for the remainder of the long vowel system in R, one finds:[26]

long a (Gmc.*$\bar{e}_1$) written ⟨a⟩ c.80X, ⟨aa⟩ 22X, ⟨á⟩ 12X

long i (Gmc.*$\bar{i}$) written ⟨i⟩ c.64X, ⟨ii⟩ 22X, ⟨í⟩ 8X, ⟨íi⟩ 1X

long u (Gmc.*$\bar{u}$) written ⟨u⟩ 34X, ⟨uu⟩ 24X, ⟨ú⟩ 11X

long o (Gmc.*$\bar{a}$) written ⟨o⟩ 5X, ⟨ó⟩ 2X

long e (Gmc.*$\bar{a}i$) written ⟨e⟩ 28X, ⟨ee⟩ 3X ⟨é⟩ 3X, ⟨ę⟩ 3X ⟨ae⟩ 5X, ⟨æ⟩ 2X, ⟨ǽ⟩ 3X

long e (Gmc.*$\bar{e}_2$) written ⟨e⟩ 3X, ⟨ee⟩ 2X, ⟨é⟩ 2X

Thus it becomes evident that probably ⟨oo⟩, ⟨ee⟩ as well as ⟨ó⟩, ⟨é⟩ express, like ⟨o⟩, ⟨e⟩ monophthongal values only.

4.2 ⟨oa⟩ for Gmc. *$\bar{o}$

4.2.a ⟨oa⟩ in Alem. and Bav.

Whereas the early OHG ⟨o⟩, ⟨e⟩ and later ⟨uo⟩, ⟨ie⟩ are taken on the whole at face value, the interpretations given other graphs are often in the form of surmises. Over half the Franc. ⟨oa⟩ are proper names which always require special consideration. Proper names may represent archaisms; the whole names or parts of them may even become a stock, or "frozen," form.[27] An example of a "frozen" form is the Lgbd. Roadpertus scarius of the year 905/6 which Bruckner quotes

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[26] Wullner, pp. 8-13.

[27] Georg Baesecke in "Das Ahd. von Reichenau nach den Namen seiner Mönchlisten," PBB, LII (1928), p. 105 notices: "Dass die entwicklung nicht am laute haften muss, auch am worte haften kann, . . ."

as: ". . . die einzige Form, in der o nach ahd. Weise diphthongiert erscheint. Sie ist mit Sicherheit als obd. zu bezeichnen, . . ."[28]

The etymology of many OHG names is difficult to ascertain. Some of them have been Latinized; others which are compounded often present the problem of arbitrarily splitting the morphs (cf. also 3.4 above). Socin, for example, is skeptical about Chroacario (No. 6 in 3.2.a) of the Weiss. Deeds when he writes: ". . . oder gehört das erste a zum zweiten Compositionsteile?"[29] In the same document ⟨oa⟩ occurs as No. 7, Chroadmundo and in other forms which Socin does not list as reflexes of Gmc. *ō. Erloaldo and Uueroaldus are two such entries, the latter of which is matched by Uueraldus. The double spelling ⟨oa⟩ and ⟨a⟩ could be helpful, if the etyma of these names were clear.

Very little information can be extracted from the Franc. ⟨oa⟩ data, if indeed they are native Franc. Both Alem. (3.2.c above) and Bav. (3.2.b above) sources yield a workable amount. The Bav. citations are given together with ⟨ao⟩ spellings for Gmc. *ō, which appear to be uniquely Bav, (the ⟨ao⟩ of Franc. Uuigrao is very probably a contamination). The digraph ⟨ao⟩ is proper as such to the OHG monophthongization and occurs in both Alem. and Bav., but with great frequency only in Bav.[30]

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[28]W. Bruckner, "Die Sprache der Langobarden," QF, LXXV (1895), p. 96.

[29]Socin, p. 222.

[30]Schatz, Althochdeutsche Grammatik, par. 37, p. 33.

The two digraphs are listed side by side because of the rather common interpretation[31] that ⟨ao⟩ is a scribal error for ⟨oa⟩. Yet ⟨ao⟩ may be relevant since there are at least 32 instances of it, although only six are in common nouns and 16 of the proper names have the sequence aodal/aodil. There are two interesting pairs—Oadalgoaz: Aodalgoz (Salzvb. 8th/9th c.) and soazono: saozono (Freis. Isidor Gl. 850-75). If both names of the same pair are reflexes of the same etymon containing Gmc. *ō in the first half and Gmc. *au in the second part of the compound,[32], then within the individual words the two are distinguished. On the other hand, the fact that Gmc. *ō can be written ⟨ao⟩ suggests the possibility that one may interpret the variation as revealing the phonetic proximity between certain reflexes of Gmc. *ō and Gmc. *au in Bav.

In the Freising Deeds, which have 174 cases of ⟨oa⟩ for Gmc. *ō, there are three doubtful ⟨oa⟩ writings for Gmc. *au: Deed No. 2 (747) Oatiloni 2X and Deed No. 9 (758) has Oato. In the same documents are instances of ⟨oa⟩ for Gmc. *ō: Hroadolti and Goatfrid in No. 2, Poatilinpah in No. 9. No. 2 shows also the spelling ⟨o⟩ for both the old and new /ō/ in Hrodeo and Cozrati, respectively. The ⟨ao⟩~⟨oa⟩~⟨o⟩ confusion

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[31] See Braune, Helm, and Mitzka, par. 39, n. 5, p. 35; K. Weinhold, Bairische Grammatik, par. 67, p. 74; and Schatz, Altbairische Grammatik, p. 18.

[32] The sequence oad- overlaps with uod-, uad-, ud-, od-, and aud-; cf. E. Förstemann, Althochdeutsches Namenbuch, Vol. I: Die Personennamen von den ältesten Zeiten bis zum J. 1100 (2nd ed. rev.; Bonn: P. Hansteins Verlag, 1900); cf. fn. 58 below.

for both the monophthongization and diphthongization would tend to indicate some type of merger which, as is known from the later development, did not take place in the Bav. dialect. Since there was no actual phonemic merger, the graphic confusion is limited in time and location.

4.2.b ⟨oa⟩ and ⟨ou⟩

Brinkmann describes the ⟨oa⟩ spelling as a: "Kompromiss zwischen heimischen ō und fränk. uo."[33] Whereas several phonetic and phonemic interpretations of such a statement are possible, it is linguistically vague and unscientific. The ⟨oa⟩ is chiefly Alem. and Bav. In Alem. no ⟨ao⟩ writing for ⟨oa⟩ from Gmc. *ō is found. ⟨ao⟩ for conditioned Gmc. *au (i.e., *au going to ō) is infrequent in Alem. when compared with the common Bav. ⟨ao⟩ for Gmc. *au.[34] Evidence of the other phase of the change of Gmc. *au, i.e., the rounding and raising of the first element resulting in the diphthong /ou/ is found earlier and more frequently in Alem. than in Bav.[35] Weinhold, in fact, doubts the phonetic value of o in the Bav. ⟨ou⟩ spellings, thinking that it inclines toward [a] whereas the Alem. ⟨ou⟩ probably has more of an [o] sound.[36] This is pertinent

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[33] Brinkmann, p. 72.

[34] See fn. 30 above; Weinhold, Bairische Grammatik, par. 67, pp. 73-4; Weinhold, Alemannische Grammatik, (Berlin: Ferd. Dümmler's Verlagsbuchhandlung, 1863), par. 50, p. 50.

[35] Schatz, Althochdeutsche Grammatik, par. 31, p. 31.

[36] Weinhold, Bairische Grammatik, p. 101; Weinhold, Alemannische Grammatik, p. 66.

to the ⟨oa⟩ spellings in that Alem. documents which have to a substantial degree ⟨oa⟩ from Gmc. *ō, namely the Keronian Glossary and the St. Gall Deeds, lack ⟨ou⟩ from Gmc. *au.[37] On the other hand, documents of about the same time as the above deeds and glossary and in which ⟨oa⟩ for Gmc. *ō is the rare exception, as Rb. or certain MSS of the Reichenau Monks, have ⟨ou⟩.[38] It appears then than an Alem. text having habitual ⟨oa⟩ has ⟨au⟩ and not ⟨ou⟩ and vice-versa. This could imply that ⟨oa⟩ in these documents is not typically Alem., perhaps it is borrowed, or infiltrated. If this is not the case and ⟨oa⟩ is native to Alem., then it very possibly differs from the Bav. ⟨oa⟩.

Hassmann says: "In Alem. tritt nach 760 oa auf, dass sich noch heute als oa in der Mda. erhalten hat."[39] Weinhold writes for Bav.: "Das heutige oa des bair. Dialects, ein dumpfes o mit nachschlagendem a, ist von dem alten völlig verschieden und eine Abart des langen ā . . . ."[40] It is reasonable that the Old Bav. and Old Alem. /oa/ differ phonetically in view of the present-day /oa/ in each dialect. It is likewise plausible that Old Bav. /oa/ differs from Mod. Bav. /oa/ and

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[37] R. Henning, p. 118., cites one case of ⟨ou⟩ for Gmc. *au: Louphaim, otherwise all ⟨au⟩. Kögel, p. 22., reports no instance of ⟨ou⟩.

[38] R. E. Ottmann in Grammatische Darstellung der Sprache des Althochdeutschen Glossars Rb (Berlin: Weidmannsche Buchhandlung, 1886), p. 16., records: ". . . 41 au (dazu saul, saulus), 21 ou, 2 o^u."; Baesecke, p. 106., writes: ". . . au fehlt."

[39] Hassmann, p. 190.

[40] Weinhold, Bairische Grammatik, par. 97, p. 98.

Old Alem. /oa/ from Mod. Alem /oa/ since their distributions differ. Hassmann approximates Swabian ǫa with OHG oo (ō).[41] However it differed interdialectally; the OHG /oa/ was doubtlessly diphthongal and may well have been a full diphthong.

4.2.c ⟨ou⟩ for Gmc.* ō

In the data the ⟨ou⟩for Gmc.* ō is distributed mainly between the two Upper German dialects. Alem. has 22 citations, Bav. 28 plus several unlisted. They include the possible allographs ⟨ov⟩, ⟨ōv⟩, and ⟨ǒu⟩. The allograph ⟨ǒ⟩ is also believed to be a variation of ⟨ou⟩.[42]

The ⟨ou⟩ does appear in most Bav. texts beside ⟨ǒ⟩. The Viennese Genesis has one ⟨ou⟩ beside 4.5% ⟨ǒ⟩ and 90% ⟨uo⟩. Perhaps some (or all) of the ⟨ǒ⟩ are /ou/. On the other hand, since both occur, there may be a distinction. Weinhold thinks that⟨ou⟩ and ⟨ǒ⟩ are one and the same with regard to ⟨uo⟩ and a case of graphic metathesis only.[43] Hassmann, however, believes this ⟨ou⟩ to represent a type of diphthongization which develops from Gmc. * ō but in late OHG and is restricted to parts of the Bav. area, (cf. 4.0.b above).

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[41]Hassmann on p. 192 writes: "Das Schwäbische kommt mit seiner Mittelstufe ǫa dem alten oo (ō) am nächsten."

[42]The "several Bav. unlisted" (cf. text) include ten references given by Weinhold in his Bairische Grammatik, par. 103, p. 103., and the 4.5% ⟨ǒ⟩ in the Viennese Genesis (cf. text). The statistics (Appendix B) given may still not be absolute in distinguishing ⟨ou⟩ and ⟨o⟩since many editors do not render them apart. Sievers in editing Otloh's Prayer in Deutsche Sagversuchtungen des IX.-XI. Jahrhunderts (Heidelberg: Carl Winter Universitätsbuchhandlung, 1924) writes ⟨ou⟩ with ⟨ǒ⟩ annotated, pp. 41-55.

[43]Weinhold, Bairische Grammatik, par. 103, p. 103.

The situation is similar in Alem. The Sg. 1394, eleventh century glosses are edited with ⟨ov⟩ spellings for ⟨ȣ⟩.[44] In this document there is the entry prȣvtelovften; the vocalic cluster in both syllables reflects Gmc.*au. Aside it are words as provdere and gȣvti with Gmc.*ō. In the Engelb. Gl edited by Wackernagel[45] where ⟨ȣ⟩ spellings are retained as such, there exists an admixture of ⟨uo⟩ (stuol), ⟨ȣ⟩ (brȣch) and ⟨ou⟩ (houba) writings for Gmc.*ō One gloss, hȣbettȣch, reflects Gmc.*au (OHG ou) in the first syllable and Gmc.*ō in the last—both with ⟨ȣ⟩. Two other examples of interchange are stouf and ouchsa with Gmc.*au and*ō respectively. It seems likely that this ⟨ȣ⟩ represents a point of phonic contact for the reflexes of Gmc.*au (OHG ou) and Gmc.*ō; one component of the diphthongs may be identical. Weinhold believes in a merely graphic explanation, saying: "Indem für uo and ou das gemeinsame Zeichen o gebraucht ward,. . .so lag bei der Auflösung in zwei getrennte Buchstaben das Setzen von ou für uo sehr nahe."[46] In Alem. the evidence allows for an ⟨ou⟩:⟨o⟩:⟨uo⟩ interchange. The actual ⟨ou⟩ for Gmc.*ō in any one given corpus in Bav. seem too few to extend this interchange to Bav. (the Viennese Genesis has e.g. one ⟨ou⟩.)

⟨uo⟩ may be pronounced with two equally strong elements. The ⟨ou⟩ and the ⟨ȣ⟩ writings may represent a tendency to

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[44] H. Hattemer in Denkmale des Mittelalters, Vol. I (St. Gallen: Verlag von Scheitlin und Zollikofer, 1884) pp. 325-8. In the introduction (p. 326) is written: "Wo wir 'ov' gaben, ist das 'v' überschrieben."

[45] W. Wackernagel, "Biblische Glossen zu Engelberg und Rheinau," ZfdA, III (1843), pp. 123-28.

[46] Weinhold, Alemannische Grammatik, par. 77, p. 71.

pronounce the first element more strongly as the prominence of the o in the second writing clearly shows. In Mod. Up. Austrian, e.g., there are diphthongs signalled by ⟨au⟩, ⟨ua⟩ and ⟨oa⟩, all of which stress the first element[47] (cf. further, Chapter VI)

Where equally represented, the ⟨ou⟩ probably differs from ⟨ȣ⟩ in OHG, and probably the Old Alem. ⟨ou⟩ and ⟨o⟩ differ from the Old Bav. ⟨ou⟩ and ⟨ȣ⟩, as they all again differ from the modern [ɒu] in the respective dialects. That the Bav. and Alem. ⟨ou⟩ (Gmc. *ō) differ in OHG is clear. The Old Bav. au (OHG ou) remains much longer than in Franc. and Alem. Toward the end of the ninth century it develops to /ou/, but Weinhold notes: "Aufgegeben ist au indessen auch im 10-12 nicht und gegen Ende des 13. Jh. drängt es sich wieder vor."[48] He believes, moreover, that ⟨ou⟩ was somewhat of a scribal convention rather than indicative of a phonetic reality.[49]

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[47]R. E. Keller, German Dialects (Manchester: Manchester University Press, 1961) pp. 208 ff.; Hassmann, p. 192., explains: ". . .(durch Straffung der Artikulation) zu uo und ie . . .(durch Lockerung der Artikulation) zu ou und ei." (cf. 4.0.b); Frings in "Französisch und Fränkisch," ZfrPhil, LIX (1939), p. 271., says: "ou ist nichts anders als eine andere Druck- und Spannungsform von ue."; Sievers in "Steigton und Fallton im Althochdeutschen mit besonderer Berücksichtigung von Otfrids Evangelienbuch," Aufsätze zur Sprach- und Literaturgeschichte: Wilhelm Braune zum 20. Februar 1920 (Dortmund: Fr. Wilh. Ruhfus Verlag, 1920), fn. 2, p. 158., attributes /ou/ to rising modulation.

[48]Weinhold, Bairische Grammatik, par. 69, p. 75.

[49]Ibid., par. 99, p. 101., where Weinhold says: "Ueber die Aussprache lässt der bairische Dialect . . . nur schliessen, dass sie nach dem a hingeneigt, also ou [OHG ou] mehr Anbequemung an die gemeine Schreibart als wirklicher Laut war, . . ."

4.3 ⟨u⟩ and ⟨a⟩ for Gmc. *ō

4.3.a "Later" ⟨u⟩

Some ⟨u⟩ spellings signal already the beginnings of the new monophthong. Franck sees the ⟨u⟩ writing as a transition from uo to ǫ.[50] Holzgraefe, in his study on the eleventh century Bav. Clm. 18140, refers to the remark of Braune, Helm, and Mitzka on scribal error (cf fn. 27, 3.3 above) in order to reject the possibility of such error for an explanation of the many ⟨u⟩ citations in Clm. 18140.[51] Braune, Helm and Mitzka distinguish the ⟨u⟩ writings as a Mid. Germ. ū < Gmc. * ō and a defective Up. Germ. ū for uo (ua)?[52] They probably make the distinction because they see in the first the new monophthong which, to be sure, is a Mid. Germ. innovation.[53] It may be that a differentiation in another direction, or of another order, is the case, i.e., that a distinction exists between the very early ⟨u⟩ spellings and the later ⟨u⟩ occurrences, both of which are found in all dialects. Perhaps this distinction should be primary.

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[50]Franck, Altfränkische Grammatik, par. 44, p. 54., says: "Für Durchgang von uo zu jüngermfr. ǫ durch einen u-Laut spricht wohl, dass als Monophthong zunächst fast nur u auftritt."

[51]W. Holzgraefe, Die Sprache des Althochdeutschen Glossars Clm. 18140 (Halle a. S.: Buchdruckerei des Waisenhauses, 1888), p. 17.

[52]Braune, Helm, and Mitzka, par. 40, n. 1, p. 36.

[53]Walter Henzen, Schriftsprache und Mundarten (2nd ed. rev.; Bern: Francke Verlag, 1954), pp. 237-8.

[54]Franck, Altfränkische Grammatik, par. 45, n. 4, pp. 55-6., vaguely alludes to such a possibility.

This so-called "later" ⟨u⟩ is described by Holzgraefe as: ". . .den Lautstand des Md. (u. Nhd.) repräsentierend."[55] It is possible that the ⟨u⟩ signifies a sound with a slight offglide; there could be spellings for such a sound, e.g. unmûzza of Jb which Schindling explains as: "u mit nachgetragenem o."[56] On the other hand it may also be a clear monophthong. If the latter is the case, the ⟨u⟩ is a long vowel but differs from Gmc./OHG/MHG ū which diphthongizes in NHG, otherwise it would have undergone diphthongization. Possibly a quality distinction is primarily relevant or a quality distinction dependent on suprasegmental influence in the case of the new /ū/. Whereas the new /ū/ occurs only in a root syllable, the old /ū/ is found in all positions. In so far as the continued development of the OHG diphthongization into later dialects shows a monophthong o-like sound or a ue-, uo-type diphthong, the new /ū/ may have been more open relative to the old /ū/.

4.3.b ⟨u⟩ and ⟨a⟩ in Names

The ⟨a⟩ and early ⟨u⟩ graphs are probably more enigmatic than the ⟨oa⟩. Attempts have been made to explain the ⟨oa⟩, but since ⟨a⟩ and ⟨u⟩ are very often considered aberrant (cf. fn. 28, 3.3 above), they are not subjected to investigation. The list in 3.3 represents a closed corpus in which

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[55]Holzgraefe, p. 16.

[56]Schindling, p. 16. Jb has two other ⟨u⟩, but they are word-initial and contiguous to a glide, uuahst ('nutrimentum') and huhaldi ('proclivis').

all the ⟨a⟩ and ⟨u⟩ instances are recorded together with ⟨o⟩ and/or diphthongal spellings of the same names. The Weiss. Deeds alone among the Franc. documents show cases of ⟨u⟩ and ⟨a⟩together. Here ⟨a⟩ is found in the roots Bab-, Bad-, Rad-, and Rah-; ⟨u⟩ is in Brum-, Cruc-, Crud-, Mut-, Ud-, and Ut-. Several allowances, which must be made, are almost self-evident (cf. fn. 27-29 above). Proper names are not totally reliable in presenting the phonological facts; they tend to become fixed forms. In addition, if they are compounded, then one element may act differently relative to the other element. Again, a name or an element of it may be doubtful, e.g. Rad- (above) for which there exists also a root *RAD.[57]

Pairs can be found as Udo (Deed No. 160): Ado (Deed No. 181) and Udalharius (Deed No. 128): Adalharius (Deed No. 104), in which the first of each set reflects Gmc. *ō and the second Gmc. *a. Since ⟨a⟩could reflect Gmc. *ō, it might seem possible that the second form is only a variation of the first. The Weissenburg material, however, provides ar answer: in it there is an alternation of ⟨a⟩~⟨o⟩~⟨(digraph)⟩ and of ⟨u⟩~⟨o⟩~⟨(digraph)⟩, e.g. Rading~Rodinga~Ruadingo and Cruccus~Chroccus~Chroacus, but never is there a variation of ⟨a⟩ and ⟨u⟩ in the same name. The entire name is to be considered, since pairs of components of names can be found as, for example, the ⟨a⟩ and the ⟨u⟩ of the morphs Rad-ing and Rud-mundus, of a. Weiss.

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[57] Förstemann, I, p. 1203. Every one of the seven ⟨a⟩ names, except Babuneuilare, listed for Weissenburg can be found in Förstemann as an *a-root as well as an *ō-root.

and Murbach Deed respectively. In view of the fact that both Rad- and Rud- in combination with their second components reflect Gmc. *ō, it would seem that ⟨a⟩ and ⟨u⟩ are in free variation at least in the sequence R...d-; however their morphemic environment differs[58] (cf. also the Alem. fara: fura below.)

In further comparing the Weissenburg names (list, 3.3) it can be noted that the seven different ⟨a⟩ names are occurrences of ⟨a⟩ before ⟨b⟩ or ⟨d⟩.[59] The ⟨u⟩ is found in nine names before ⟨cc⟩, ⟨d⟩, ⟨l⟩, ⟨m⟩, or ⟨t⟩. The diphthongal reflex for either the ⟨a⟩ or ⟨u⟩ names occurs in this list always before a dental. Nevertheless, the list is probably too limited to draw from these environmental factors any significant conclusion, i.e.., for example, whether the names are stereotyped.

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[58]There is much phonemic overlapping in some names, although the fact that several minimal pairs of ⟨a⟩ and ⟨u⟩ can be found, points to a rather clear etymological distinction. The problem of overlapping can be seen in the explication of a root as *Udo (cf. text above) which is listed in Förstemann, I, p. 1472 under the root *UD, to which he comments: ". . .obwohl seine scheidung von OD (ō) nur eine unsichere sein kann." In turn, for *OD he writes (p. 1175): ". . .Nach drei seiten ist es unmöglich diesen stamm reinlich zu scheiden: 1) von UD . . . 2) von AUDA, wo ich die formen mit Od-, Ot-, lassen musste . . . auch manches Oad-, Oat- kann leicht ungenau für Aod-, Aot- stehen. . .3) von Vad-, Vod- . . . In der mehrzahl der formen ist dieser stamm gewiss als secundär anzusehen, aus OTHAL und anderem." Both Förstemann and Schatz, "Das älteste Salzburger-Verbrüderungsbuch," p. 5., set up an *ud,*ut-form respectively, out of "necessity" because of frequency of occurrence. Whereas Förstemann supposes that the stem may have developed from the most varied sources, Schatz places it in ablaut with *ōt <*aud-.

[59]Socin, p. 224., records Rahholf under Gmc.*ō. His classification seems questionable in that the name may belong to the root *RAH; Förstemann, I, p. 1243 does cite a Raholf.

4.3.c ⟨u⟩ and ⟨a⟩ in Word-forms

The Alem. ⟨a⟩ and ⟨u⟩ citations are found aside each other only in the Keronian Glosses, where also the Bav. cases are best traced. The listing in 3.3 shows these instances, which contrary to the Weissenburg data are not names. Also unlike the Weissenburg ⟨a⟩ citations, those of the Keronian Glossary do not have such a strong affinity to a-root words. Probably one-third to one-half of these ⟨a⟩ spellings (za considered only once) can in no way be derived from Gmc. *a.

Of the five cases of ⟨a⟩ in the Bav. Pa three are in the morph za: za quemane, za gamezze, and zacangan. The Alem. K writes in comparison: zoahqhuomane, za gamezza and kikankan. Kögel appears dubious about za gamezza, ("für ō?")[60] probably because of the Ra zo kamezan. Although Pa's za quemane is reflected by a diphthong in K, and is, therefore, also a strong case for Gmc. *ō, all three Pa za citations may be doubtful. According to Kluge they can go back to either Gmc. *tō or *ta.[61] It is noteworthy that za is spelled zu nowhere in the same document; the za gamezza is of K, whereas zukilatot belongs to Kb. As in the case of the compounded Weissenburg names, it might be possible that a Gmc. *tō-form may be given a different spelling in certain phrase relationships.

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[60] Kögel, p. 10.

[61] Kluge and Götze, p. 891., write further: ". . . Neben das Germ. *tō als urspr. Adv. stellt sich eine germ. Präp. *ta . . . . Adv. u. Präp. vereinigen sich in einer idg. Grundform *dŏ, *dĕ."

In the Alem Kb is what appears to be the minimal pair fara ('oppido'): fura ('mammona'). According to Kögel's systematization this ⟨a⟩ and ⟨u⟩ are both derived from Gmc. *ō.[62] Graff lists fura under fōra, fuora and glosses them with several definitions, among them 'stipendium' about which he writes: "In Rücksicht der letzteren Bedeutung (stipendium) ist aber auch Wurzel FA in Erwägung zu ziehen." He then asks: "Gehört auch fuara 'oppido' Ra (cf. Kb fara) hierher?"[63] fara: fura are probably phonemically distinct; if overlapping occurs, it is on the part of fuara and then most likely one of meaning rather than of phonology.

The suzlihho of Pa is reflected in K by suuazlihho which Kögel does not list as an ⟨a⟩ citation reflecting Gmc. *ō as such, but places in a group of "Formen mit a"[64] in a discussion on the occurrence of the word sozzi and its congeners. What the ⟨a⟩ and ⟨o⟩ spellings after ⟨uu⟩ in K indicate, Kögel does not say. suuazlihho appears in Kb, where the phonemic sequence /sw/ is usually (54X) represented by the graphic cluster ⟨suu⟩.[65] Kb has also a form suuizza which is considered by Kögel as a case of graphic transposition, ". . .lies suuazzi!"[66] If the ⟨a⟩ were not a monograph, thus confirming that ⟨uu⟩ equals /w/, the scribal error could hardly have occurred here. As a result suuazlihho could be an ⟨a⟩form in free variation with suzlihho of Pa.

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[62]Kögel, p. 11.

[63]Graff, III: Die mit den Labialen B, P (PH) anlautenden Wörter (1837), p. 597.

[64]Kögel, fn. 1, pp. 10-11. [65]Ibid., p. 48. [66]Ibid., p. 11.

The ⟨a⟩~⟨u⟩ alternation may, however, be an etymological one analogous to the situation of the Gmc. *tō (above). Kluge and Götze record for the Gmc. root *swōtu- an IE *suād.[67] In earlier editions (e.g. 11th ed., 1934) they posit beside it an ablaut root *sūd, which may be reflected in Gothic sūtis.[68] There is then the possibility that two different grades of the root show up in the ⟨u⟩/⟨a⟩spellings. There is also the less likely possibility that the Lat. gloss listed aside these two forms, suauia, may have influenced the ⟨a⟩ form.[69]

4.3.d The Phonetic Identification of ⟨u⟩ and ⟨a⟩

Socin makes the rather obvious statement about the pronunciation of the ⟨a⟩ spelling that it inclines or points to the "helle Ausprache des ō" whereas the ⟨u⟩ is a "Verdunkelung des ō."[70] He further speculates that phonemically the ⟨a⟩ may represent a transition to /ua/, /uo/ and ⟨u⟩ might be a contraction or a defective spelling for these diphthongs.[71]

In the Weiss. Deeds which have the greatest concentration of ⟨a⟩ spellings (20X), the ordinary spelling for the diphthong is ⟨ua⟩ and not ⟨uo⟩. The twenty ⟨a⟩ spellings are paralleled by 21 ⟨o⟩ and seven ⟨ua⟩. (The ⟨a⟩, ⟨ua⟩ may

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[67]Kluge and Götze, 17th ed. rev., p. 766.

[68]Kluge and Götze, 11th ed. rev., p. 607.

[69]Besides the above discussed suzlihho, Pa uses the word sōzzi in four additional occurrences, two with ⟨ō⟩ and two with ⟨oa⟩. The correspondences in K are all spelled with ⟨a⟩. See Kögel, fn. 1, pp. 10-11.

[70]Socin, p. 223. [71]Ibid.

indicate a tendency toward [a]). The ⟨u⟩writings total eleven which are paralleled by thirteen digraph writings and twenty ⟨o⟩ spellings; there are no ⟨a⟩ here as there are no ⟨u⟩ in the ⟨a⟩ group. The thirteen digraph spellings are not exclusively ⟨ua⟩; some are ⟨uo⟩ or ⟨ua⟩ and ⟨uo⟩ modified by diacritical marks. The Socin hypotheses (fn. 71 above) that ⟨a⟩ is linked to the /ō/ in the beginning phase of the diphthongization, and ⟨u⟩ linked to it as part of the final phase can find room in these statistics. It is possible that the ⟨a⟩ group does not show the advancement in development as the ⟨u⟩. The ⟨a⟩ and ⟨o⟩ spellings predominate, and there are no ⟨uo⟩ or modified digraph spellings of it. In the case of the ⟨u⟩ group, the twenty ⟨o⟩ may incorporate what could be ⟨a⟩ spellings. The ⟨u⟩ forms seem to decrease inversely to the diphthongized forms.

The Keronian Glossary yields ten cases of ⟨a⟩ (cf. 3.3 above).[72] Two of these ⟨a⟩ are paralleled in at least one other MS by a diphthong (⟨ua⟩, ⟨oa⟩), the other eight by ⟨o⟩ (one of them ⟨ó⟩). There are also ten ⟨u⟩ cases, three of which are paralleled by ⟨oa⟩, three by ⟨o⟩, two by zero, one by ⟨oe⟩, and one by ⟨a⟩?[73]—all at least once. The two ⟨a⟩ citations which appear otherwise as ⟨oa⟩, zoa, and ⟨ua⟩, fuara,

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[72]Kögel, p. 12., limits the data by considering sano of K as a case of "vocalverwechslung" and he deletes satot Ra equals sotod K. It is included, as written here, by E. Steinmeyer and E. Sievers in Die Althochdeutschen Glossen, Vol I: Glossen zu biblischen Schriften (Berlin: Weidmannsche Buchhandlung, 1879), p. 207.

[73]See fn. 64, 65, 66 for the questionable ⟨a⟩ spelling.

may not be etymological correspondences to za and fara (fn. 61, 62, 63 above). If these two cases are eliminated, then there is not any digraph citation beside ⟨a⟩ reflecting Gmc. *ō.[74] The digraph spelling alongside the ⟨u⟩ forms is ⟨oa⟩, (for :groentem, a spurious spelling, cf. 3.4). The Weiss. Deeds had one ⟨oa⟩ for Gmc. *ō beside a ⟨u⟩ writing.

It can be concluded that ⟨a⟩ and ⟨oa⟩ do not occur in the same words; they may symbolize like or same sounds. This possibility is supported by the fact that in the Weiss. Deeds some words with the root Gmc. *a are also written ⟨oa⟩ (cf. 4.2.a). A slight bit of evidence yet is the metathesis in the Alem. Kb sano ('concilio'). It together with the transposition of ⟨a⟩ in suizza (cf. fn. 58 above) definitely show an exchange of monographs, but not necessarily of monophthongs. Much of the data points to the fact that there exists a phonic affinity between the sounds represented by the graphs ⟨o⟩, ⟨oa⟩, ⟨a⟩ in the Franc. Weiss. Deeds and in the Alem. and Bav. Keronian Glosses. It seems possible that ⟨a⟩ represents an off-sound of Gmc. *ō and it may even be diphthongal. If so, it is probably within the range of the sound signalled by ⟨oa⟩, close to that of the ⟨o⟩.

The situation with the ⟨u⟩ is less clear; its identification is much more speculative. There is no reason to assume a phonetic contraction for the ⟨u⟩; it too may have diphthongal pronunciation but more in the direction of the final diphthong. These ⟨u⟩ probably differ from the "later" ⟨u⟩ considered in 4.3.a above.

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[74] The ⟨a⟩ : ⟨oa⟩ in fn. 69 may have different etyma.

4.4 Spurious Diphthongs

4.4.a gimat

The gimat form is matched by a kimot of the Cod. Monac. 67 (9th c.) and this stem is also found in the data with multiphthongal sequences. In the same document as gimat (Clm. 18140) occur gimuot and gimuoit, the latter being also in the Monseer Gl. (9th c.). In Notker's Boethius there is gemuohet and in the Cod. Einsidl. 155 (11th c.) gemugte. Such non-monophthongal variants make it doubtful that the ⟨a⟩ and ⟨o⟩ forms are phonetic. Rather than considering them truly monophthongized or contracted, it seems better to view them as defective spellings.

4.4.b ⟨ue⟩ Spellings

The ⟨ue⟩ of cruentem as most of the ⟨ue⟩ spellings in the data belong to the type which is derived from a root final vowel plus a vocalic suffix. Verbs of such a formation are known collectively as verba pura. Nouns can have a similar structure as in the case of roa (cf. 3.4). The ⟨ue⟩ and the ⟨oa⟩ are called spurious spellings because they are graphically identical (homographic) with spellings representing the diphthongization of single vowels.

⟨ue⟩ in other forms (cf. 3.4) has to be interpreted differently. guetes is customarily described as assimilation, whether phonic or graphic is not specified, to a following e (cf. fn. 36, 3.4). The assimilation type seen in chuili is retrogressive partial phonic assimilation or umlaut. It is

not conceivable that forms as guetes and gisuenen could be umlaut spellings. There are very few of these early ⟨ue⟩ before ⟨e⟩ spellings. Schatz lists besides the above two, two citations from Otfrid as examples, fuelen and irluegetun; from the Cod. St. Gall 295, cuetes; from Jc, zikiuuerre and kifuege; and from the Cod. Vaticanus Pa/1716 hūeb sih.[75] The last three may well be examples of umlaut; the two Jc citations are reflected overtly by umlaut in MHG and the hūeb sih is written as one word in the glossary. Even as two separate words it obviously has close juncture allowing umlaut.[76] The earlier mentioned gisuenen is also an umlaut form in MHG. The guetes and cuetes are the only two citations (other than those from Otfrid) which are not relatively certain umlaut possibilities. In the case of the two Otfrid citations and some additional seventeen which Kelle[77] quotes, umlaut cannot be assumed even where it would seem reasonable because of Otfrid's practice of orthographic assimilation, imperfect though it was. Kelle lists also a fuer er[78] and makes special mention of its i-apocope. Certainly ⟨ue⟩ in fuer would then be a strong

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[75]Schatz, Althochdeutsche Grammatik, par. 23, p. 26.

[76]H. Penzl in "Umlaut and Secondary Umlaut in OHG," Lang., XXV (1949), p. 228., explains such an occurrence in Otfrid by close juncture: "A certain correlation between primary umlaut and close juncture is revealed by such phrases as Otf.'s meg ih . . . ."

[77]J. Kelle, Otfrids von Weissenburg Evangelienbuch, Vol. II: Die Formen- und Lautlehre der Sprache Otfrids (Regensburg: Druck u. Verlag v. G. J. Manz, 1869), p. 463.

[78]Ibid.

possibility for indicating umlaut by the very definition of umlaut.[79]

The assimilated ⟨ue⟩ as in guetes is designated as an "Abschwächung des Diphthongs ua [uɑ]" by Kelle.[80] The term "Abschwächung," quite commonly used for ⟨ue⟩[81], seems ill-suited, if not phonetically erroneous. Actual phonic vowel harmony or assimilation, as guetes might represent, at this time is, if at all, probably unique to Otfrid. That it was somewhat phonetic and not only graphic seems reasonable. gidue 2.19.17 of Otfrid is certainly not a case of this assimilation; it would seem to be a case of root vowel contiguous to inflection, but Wilmanns calls it a diphthong rhyming with thie.[82] It is an example of Otfrid's effort toward vowel agreement with actual use of ⟨ue⟩. Similarily, the ⟨ia⟩, ⟨io⟩, ⟨ie⟩ spellings include many examples of vowel agreement before ⟨a⟩, ⟨o⟩, and ⟨e⟩ respectively, though not exclusively. Whatever the phonic value of the assimilation in Otfrid, it probably is distinct from any umlaut sound, for example, the ⟨ue⟩ of

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[79]See W. F. Twaddell, "A Note on Old High German Umlaut," Monatshefte, XXX (1938), p. 177., where Twaddell defines it thus: ". . .a group of modifications of vowels and diphthongs known collectively as umlaut occurred in connection with a following palatal element, i, ī, or j." Cf. also Penzl, "Umlaut and Secondary Umlaut in OHG."

[80]Kelle, Vol. II, p. 463.

[81]So, for example, among others by F. Seiler in "Die altdeutsche Uebersetzung der Benediktinerregel," PBB, I (1874), p. 425; Weinhold, Bairische Grammatik, par. 107, p. 106.

[82]W. Wilmanns, "Metrische Untersuchungen über die Sprache Otfrids," ZfdA, XVI (1874), p. 122.

suechet 5.4.41 from the ⟨ue⟩ of fuer 4.20.13.

4.4.c moita and stuoal Spellings

moita occurs in the Tegerns. Vg. Gl. together and in variation with muota and muotta ("muoita?")[83] By comparison with its variant forms, the ⟨o⟩ of moita may be Gmc./OHG ō, the second element of a diphthong as /uo/, or it may even represent the first: perhaps it stands for a diphthongal or umlauted sound. Similar or like circumstances pertain to gemugte and luvnga which may be compared with longer forms as muoungun, for example.

The only type which has neither umlaut nor root-final vowel derivation is stuoal. It is difficult to explain etymologically in that this form is a reflex of one which has only one organic root vowel originally. Another such case is the name Ruaodho of the Reichenau Monks, MS Mb (912), about which Baesecke comments: ". . .-uao. . .zeigt die einführung. . . [of /uo/ presumably]."[84] There are about a dozen more in the data: vuoᵃsti, vuoacher—if ⟨vu⟩ does not equal /w/ of Clm. 18140 (11th c.); puoah, St. Gall 295 (9th c.); Uoatila, Freis. Deed No. 609; twournamed: ⟨uoa⟩ and ⟨uao⟩ in the Reichenauvb.; and duoa five times in the Tegerns. Vg. Gl. In Ka there is a zoaatoit which Kögel interprets as scribal error for zoacatoit.[85]

Placing forms as ⟨ǒa⟩ with those as ⟨uoa⟩ implies that

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[83]Graff, II: Die mit den Liquiden L, R, M und anlautenden W'örter (1836), p. 601; likewise Bremer, "Germanisches E," p. 67.

[84]Baesecke, p. 105. [85]Kögel, pp. 42-3.

other such writings as ŭoto, Uŏto, Salzvb. (8th/9th c.), may belong here. Besides digraphs modified by an acute or circumflex as, e.g. the Bav. Salzvb. Róachere (3.2.b) there are very few marked by diacritics, about five in the Franc. data, two in the Alem. and twelve in the Bav.[86] Five of the Bav. occurrences are from the Tegerns. Vg. Gl. (11th c.): arsŏoche, frāspŏotigi, gigrŏoztu, rŏozzit and unmŏozun. Again, it is impossible to interpret these spellings with any certainty; perhaps they belong to ⟨oo⟩. What is noticeable is that at least in the case of the Bav. data they are limited to three sources at most, and within the Salzvb. to the stem VVt-.

Spellings like ⟨iuo⟩ in uierfiuozen may indicate umlaut. Although Pietsch writes: ". . .umlaut liegt wol nicht vor, . . ." umlaut could be present in this word by analogy. The noun fuoz, originally u-inflected, is found in OHG declined both according to the u- and the i-stems, specifically in the dat. pl.[88] Since the i-inflection predominates in the paradigm,

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[86]Of these, the following have been included in the ⟨oa⟩ writings in 3.2: the Franc. Weiss. Deed gŏat in which ⟨o⟩is corrected to ⟨u⟩; the Alem. Ab uuŏafanti; the Alem. Cod. Monas. heremit. 32 rofah; the two Bav. Tegerns. Vg. Gl. fio^{a}tar, a non-understood form, and uŏazi, in which the ⟨o⟩ is the correction of ⟨u⟩. (The last two are thus explained by H. J. Velthius in De Tegernseër Glossen op Vergilius (Groningen: J.B. Wolters, 1892), p. 6). Schatz in Althochdeutsche Grammatik, par. 23, p. 27., lists some of these marked digraphs with the trigraph writings. Ottmann, p. 14 describes the ⟨oa⟩ of uuŏafanti as a "mittellaut zwischen oa und ua."

[87]P. Pietsch, "Der Oberfränkische Lautstand im IX. Jahrhundert," ZfdPhil, VII (1876), 356.

[88]Braune, Helm, and Mitzka, par. 220b, n. 2, p. 197.

it is plausible that the above uierfiuozon contains umlaut through the pressure of the pattern.[89] This is more likely than a substitution in the ending from /i/ to /o/ or /u/. Otloh has the form apauuiorit, a three vowel sequence quite certainly signifying umlaut.

It was said that a form as moita could reflect part of an o-type diphthong. There are ⟨ǒa⟩, ⟨oa⟩, ⟨ǫu⟩, 5⟨uoa⟩, and five ⟨ǒo⟩ in the same document but not in this root; ⟨ou⟩ is used in this root five times and ⟨uoi⟩once; there are also seven ⟨ǒ⟩ of which Velthuis writes: "Graphisch wordt uo weergegeven door o, . . ,"[90] but again none employ this root. The citation is probably too late for the first element of this ⟨oi⟩ to be Gmc./OHG ō.

⟨o⟩ contiguous to another vowel generally seems to be as early as the ⟨o⟩ spelling itself. This suggests its identity to be the same or similar to the OHG ō. Franck surmises that /o/ in such forms probably diphthongized, then underwent sandhi[91]

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[89]Penzl in "Umlaut and Secondary Umlaut in OHG," p. 232, explains: "By analogy it [umlaut] was transferred to other forms, where no i-sounds had ever been present and where no umlaut sounds could have developed."

[90]Velthuis, p. 6.

[91]Franck in Altfränkische Grammatik, par. 46, p. 56., writes: "Denkbar wäre Übergang des noch nicht diphthongierten ō vor Vokal zu ū, aber wahrscheinlicher ist Reduktion oder Schwund des nachklingenden Elements im Diphthongen vor dem folgenden Vokal. . ." Apropos this problem H. Paul in "Beiträge zur geschichte der lautentwicklung und formenassociation 9. Nocheinmal gotisch au vor vokalen," PBB, VIII (1882), p. 215., thinks: "Ob dabei überall das zwischenstadium uo oder ua durchlaufen ist, wird sich schwer mit sicherheit entscheiden lassen."

which seems plausible at least for the first occurrences of the phenomenon. Tatian yields examples of the complete course of this with the infinitive tróen(d') which is also found as thruoen (γ) and trúen(d'). It would seem that once this pattern is established, the /o/ could be replaced directly by the /u/ through analogy.

The modern reflexes of words with a three vowel cluster based on one original root vowel are uniformly pronounced with [u:] , e.g. stuoal: Stuhl, buoah: Buch, (with umlaut) vuo^{a}sti: Wüste. There are four such citations in the data[92] for reflexes of Gmc. *$\bar{e}_2$ (cf. 3.5.b). Three of them survive into NHG and all as [i:] . Sievers refers to such a form as a triphthong having rising-falling modulation.[93] The spellings involved are:

⟨ei^{a}⟩	⟨uo^{a}⟩
⟨eia⟩	⟨uoa⟩
⟨eie⟩	⟨uao⟩
⟨ieo⟩	⟨oua⟩
	⟨(oaa)⟩

The evidence is too slight to speak of a comparative development between the *$\bar{e}_2$ and *$\bar{o}$ groups. Two of the four

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[92]This does not include the pronoun group (cf. 3.7 above) which has five citations with clusters ⟨æa⟩, ⟨ige⟩, ⟨iea⟩, ⟨iae⟩; the last two could be paralled to some $\bar{o}$ reflexes. It is doubtful whether the pronominal forms can reasonably be compared in the same group as the four *$\bar{e}_2$ reflex citations because of their uncertain etyma. The IE *j which has influenced the paradigm may show up here (the ⟨ige⟩ spelling could point to this), which would eliminate these words from the three vowel group based on one organic root vowel. Also, the last writing, ⟨iae⟩, is used in the Monsee Frag. twice, one time in iaer which is written nowhere else in the data as a diphthong or triphthong. The trigraph tendency may be a special peculiarity of the Monsee Frag. (e.g. tuoit of 4.4.d below).

[93]Sievers in "Steigton und Fallton," fn. 2, pp. 158-9, writes: "Triphthongische Formen weisen auf steigend-fallende Betonung hin: so pihei^alt. . . ."

words reflecting *$\bar{e}_2$ are originally reduplicated verbs (cf. fn. 19, 2.1 above), and the ⟨ei-⟩ of the trigraph has been given interpretations peculiar to the development of these verbs. Karstien interprets ⟨eia⟩ as a graphic representation of the diphthong /ẹa/ with a closed first element.[94] The ⟨eie⟩ and ⟨ieo⟩ would still require an explanation, also the several *$\bar{o}$ reflex trigraphs. The data reflecting *$\bar{e}_2$ show no examples of digraph writings marked by a superscript other than by an acute or circumflex. There are some marked by a 'hook' ⟨iẹ⟩ in the Bav. Monsee Frag. and Alem. Rb; ⟨ẹ́e⟩ in the Bav. Freis. Deeds.[95] In the *$\bar{o}$ reflex material a spelling as the ⟨ǒa⟩ in uuǒafanti (Rb) is obscure in that it might be dissolvable into a linear sequence as ⟨uoa⟩. On the other hand, in the Salzvb. (8th/9th c.) is the pair ǔoto and Uǒto, in the former the ⟨u⟩ is modified, in the latter the ⟨o⟩. In the same series as this pair occurs also Hóachere (mentioned above).

There is in no source an ⟨óa⟩ form aside an ⟨ǒa⟩ form, i.e. the two types of modification, for example. Whether they signal the same modification cannot be ascertained with certainty. Generally a form with an acute (or circumflex) is considered to be modified suprasegmentally, whereas one with

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[94] C. Karstien, "Altalemannisch BI-HEIALT," PBB, LI (1927), pp. 25-6.

[95] Single graphs thus marked are ⟨ẹ⟩ of the Hildebrandslied (Hild.) and ⟨ẹ́⟩ of the Freis. Deeds.

a superscript in letter form as ⟨ᵛ⟩ is thought of as a segmental indication. However, the Monsee Frag. have a pair sięᵢ: siae (acc. pl. masc.) which can indicate that a diacritic other than a letter might have a segmental reflex?[96] Still another spelling ęepo of the Freis. Deeds would show that ⟨˛⟩ and ⟨ˌ⟩ have individual effects. But the ⟨˛⟩ may be relative to the segmental phoneme position in the word. Socin supposes that accent marks on word-initial diphthongs as in the case of several ⟨úa⟩ of the Weissenburg deeds are intended to keep the [ua] distinct from [wa].[97] To be sure, in the Freis. Deeds a Jepo exists for the year 842.

It appears very possible that something of the essence of the diphthongized *$\bar{e}_2$ and *$\bar{o}$ can be found in the trigraph group (three vowel cluster or digraph diacritically modified). They are mainly Alem. and Bav.—a phenomenon analogous to the lack of ⟨oa⟩ in Franc. (cf. 3.2.a). Probably each example of this group can be said to consist of three bits or units, two segmental and a third segmental in free variation with a prosodic phoneme or vice versa (i.e., the third a suprasegmental phoneme in free variation.)

4.4.d The Phonemic Status of Spurious Diphthongs

All other examples in 4.4 are composed of two or three vowel groups with ⟨w⟩ (⟨u⟩), ⟨i⟩, ⟨ę⟩, or ⟨h⟩ which were

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[96]But Brinkmann, p. 165., contrary to G. Baesecke, Einführung in das Althochdeutsche (München: C. H. Beck'sche Verlagsbuchhandlung, 1918), par. 18, 1b, p. 38., thinks that ⟨ae⟩<Gmc. *ai is not a diphthong in the Monsee Frag.

[97]Socin, p. 225.

designated by V in the cluster structure formations (cf. 3.4 above). Braune, Helm, and Mitzka characterize the w, i, g, and h as "hiatushindernde Ubergangslaute;"[98] they cite the forms bluoian, pluogen, bluowen, bluohan.[99] /w/ and /j/ are usually understood to be semivowels and ⟨g⟩ seems to be a variant of the /j/, perhaps only a graphic one.[100] /h/ as a glide is considered by some as the semi-vocalic alternate of the phoneme.[101] Sievers even speaks of a "voiceless vowel/ semi-vowel h."[102] For the purpose of immediate description it appears justifiable to designate ⟨w⟩, ⟨i⟩, ⟨g⟩, and ⟨h⟩ as at least Vocalic or vowel-like on the basis of similarity of distribution in these vocalic root stems (cf. e.g. bluohan above.)[103]

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[98] Braune, Helm, and Mitzka, par. 152, n. 3, p. 138.

[99] Ibid., pars. 117, p. 103; 110, nn. 2 & 3, p. 98.

[100] Ibid., par. 117, p. 102., says: "Im Inlaut nach Vokalen begegnet j in der ganzen ahd. Periode nicht selten, aber nur nach langem Vokal oder Diphthong; . . .Geschrieben wird es i, vor folgendem e, i dagegen meist g."

[101] H. A. Gleason in An Introduction to Descriptive Linguistics (1st ed. rev.; New York: Holt, Rinehart and Winston, 1961), par. 3.22, p. 38., writes: "Since there is no clear evidence that /H/ has or has not a counterpart in /h/, linguists differ as to the direction in which the evidence points."

[102] E. Sievers, Grundzüge der Phonetik, (4th ed. rev.; Leipzig: Breitkopf & Härtel Verlag, 1893), par. 262, pp. 102-3.; Bloch and Trager in Outline of Linguistic Analysis (Baltimore: The Linguistic Society of America, Waverly Press, Inc., 1942), par. 2.10, p.25, write: "The consonant [h], . . .which we have described as a glottal spirant, . . .can be alternatively regarded as a voiceless vowel."

[103] For English, Bloch and Trager, par. 3.7, p. 51, describe an analogous situation: "Since /h/ here acts like /j/ and /w/ in forming compound syllabics with a preceding vowel, we group /h, j, w/together in a structural set...and label them semi-vowels." Further evidence of like distribution can be seen in Otfrid which Bremer, "Germanisches E," p. 65 notices: ". . .h

There are examples in ⟨V+ v/i/g⟩ but none have been found with ⟨Vh⟩. The unruhliho of Ra contains an organic /h/, Gmc. *k.[104] Whereas ⟨v⟩, ⟨i⟩, ⟨g⟩ can be accepted as spellings for semi-vowels, the ⟨h⟩ can only be classified as one with difficulty. It can rather safely be said that all four have a degree of friction, (perhaps voicelessness),[105] and incomplete closure in common. Braune describes the /h/ between vowels as a "hauchlaut."[106] Bremer on the one hand writes that the ⟨h⟩ is purely orthographic, on the other hand he calls it an indefinite consonantal sound.[107] Sievers in his Grundzüge der Phonetik describes it as a chameleonic sound: "Ziemlich häufig richtet sich das h nach seinen Nachbarvocalen; in aha, ihi, uhu bleibt die Stellung für a, i, u durch die ganze Lautfolge beibehalten, . . ."[108] Julius Hoffory in 1876 wrote of post vocalic /h/ (and he adds that it applies to /h/ intervocalically and finally as well): "Er verhält sich mithin zum vocale ganz wie ein tonloser

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schrieb man nur dann, wenn der zwischen zwei vocalen sich bildende consonant weder ein ɣ noch ɣ war, d.h. weder ein labialer noch palataler mundengenlaut, sondern ein gutturaler."

[104] Kluge and Götze, 17th ed. rev., pp. 250-51.

[105] Sievers, Grundzüge der Phonetik, par. 398, p. 153.

[106] Wilhelm Braune, "Uber die Quantität der althochdeutschen Endsilben," PBB, II (1876), p. 131; Sievers, in "Steigton und Fallton," p. 153 speaks of a laryngeal h which effects rising modulation on the preceding vowel similar to the effect found in the Semitic languages, as with Arabic ḥ.

[107] Bremer, "Germanisches E," p. 62; cf. also Bremer, fn. above.

[108] Sievers, Grundzüge der Phonetik, par. 479, p. 180.

consonant oder halbvocal zum tönenden oder mit anderen worten: das h ist ein tonloser vocal; das h^a ein tonloses a, das h^i ein tonloses i usw."[109]

The phonemic nature of the multiphthongal clusters is probably only partially knowable.[110] However, certain inferences have been made especially on the basis of Otfrid's rhyme structure. Wilmanns argues that the two-vowel sandhied forms (with the exception of some forms of tuon, cf. below) are disyllabic in Otfrid; he explains: "Sein (O's) versbau zeigt, dass er in wörtern wie hue, bluent, irnuit langen vocal sprach, denn die zweite silbe ist hebungsfähig; es ist also in ihnen nicht ŭ sondern ū an die stelle von ō getreten . . . ."[111]

Flasdieck claims (cf. fn. 110) that the pertinent factors in the formation of these verb forms were pre-historical and that the historical evidence hardly allows the determination of accurate syllable division in them. This appears essentially correct. As an example can be taken four variations of the past participle of the verb gamōlan, from the eleventh

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[109] J. Hoffory, "Phonetische Streitfragen, Kuhns Zeitschrift, XXIII (1877), p. 556.

[110] Flasdieck, p. 317., says of the verba pura structures: "Die Beurteilung der gesamten Verhältnisse ist dadurch so ausserordentlich erschwert, dass all entscheidenen Vorgänge vorhistorisch sind. So bleibt in jeden Lösungsversuch ein Unsicherheitsfaktor." and p. 318,: "Beim ō Laut ist ein entsprechender Unterschied der Stellung in Zwei- oder Dreisilbern aus der historischen Uberlieferung nicht fassbar."

[111] W. Wilmanns, "Die Flexion der Verba TUON, GĀN, STĀN im Ahd.," ZfdA, XXXIII (1843), p. 425.

or twelfth century and from an Upper German dialect:

gi mu ot	Clm.18140, (11th c) Bav.
gi mu it	Clm.18140, (11th c) Bav.
gi muo it	Monsee Gl., (10th c) Bav.
ge muo het	Notker, (11th c) Alem.

In a morphemic synchronic analysis one is unable to decide whether in the first two forms one can assume a morphemic boundary between u and o, and u and i, i.e., between the stem vowel and the participal suffix -(i)t.

Only forms as duen, duis, duit of the verb tuon are monosyllabic according to Wilmanns.[112] As proof he cites Otfridian rhymes as duit:giltit, 3.13.37; gique:thie, 2.19.17; duit:zīt, 4.7.81; and duit:quīt, 3.17.15 which he describes as diphthongs rhyming with simple vowels.[113] Wilmanns thinks that the u of these forms developed differently from the u of the other sandhied forms as in the verba pura.[114] Other forms of the verb tuon found in the data contain anywhere from one to four vocalic elements: tōt Pa; duit Otfrid; tuoit Monsee Frag; tuoie Notker. Citations like the last two in particular suggest that perhaps there is a direct relationship or mutual influence between some forms of this verb and the verba pura.

Wilmanns describes the first element of the spurious

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[112] Ibid.

[113] Wilmanns, "Metrische Untersuchungen über die Sprache Otfrids," p. 113.

[114] See also H.M. Flasdieck, "AE. Dōn und Gān," Anglia LXI (1937), pp. 44-5., for his explanation of u in the tuon words. Prokosch, par. 75, p. 222., without doubt understates the situation when he writes: "OHG (Otfrid) duist, duit, etc. (u instead of uo as simplification of the group of three vowels.)"

diphthong /ui/ as not only being short, but according to the Holtzmann idea, as also being consonantal [w].[115] This seems reasonable in that the second element of the diphthong bears the rhyme; in some cases this rhyme is with a short vowel, e.g. duit: giltit, 3.13.37 but duit: zīt, 4.7.61. Possibly the pronunciation of each occurrence of duit is relative to its rhyming partner. (A third type duit as in duit: quīt, 3.17.5 may well be pronounced with consonantal /u/ followed by a long /i/.) Wilmanns[116] gives examples also of some *$\bar{e}_2$ diphthong reflexes which rhyme with both short and long vowels, so hiar: wachar, 4.7.83 and hiar: wār 4.2.34. In the case of the first pair it may be that the ⟨i⟩ is ⟨j⟩. Moreover, where two unlike diphthongs rhyme, the first element is probably consonantal; two sets are gidue: thie 2.19.17 and giliaz: muaz 5.7.38. These setsreflect both Gmc. *$\bar{e}_2$ and *$\bar{o}$; their assonances can hardly be indicative of the normal OHG pronunciation of the new diphthongs, since they result under poetic license.

In MHG many of these roots are umlauted forms, which is not surprising if a form as pluait ('blüht') is considered. Perhaps polyphthongal spellings including an overt ⟨i⟩, ⟨j⟩ or ⟨g⟩ were already pronounced as umlaut allophones in OHG. It would seem, however, that the ⟨i⟩ in pluait is not an umlaut

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[115] Wilmanns, "Metrische Untersuchungen über die Sprache Otfrids," fn. 2, p. 22; A. Holtzmann in Altdeutsche Grammatik, I, Pt. 1: Die specielle Lautlehre (Leipzig: F. A. Brockhaus, 1870), p. 248., designates: ". . .fast dwit zu sprechen."

[116] Ibid., p. 122.

spelling as such, but the third pers. sg. inflectional element. One could quote bluouuent, bluoient, pluogentiu in which ⟨i⟩ and ⟨g⟩ are glides, hiatus-breakers, as ⟨w⟩ , and not umlaut signals. On the other hand, since many of these roots eventually show umlaut, the ⟨i⟩ inflection or glide superseded any other as ⟨w⟩ or ⟨h⟩ in the paradigm.

4.5 Spellings for Gmc. *$\bar{e}_2$

Among the writings reflecting *$\bar{e}_2$ ⟨ee⟩ and ⟨é⟩ were discussed in 4.1.b along with the *$\bar{o}$-material, and the multiphthongal and modified digraph spellings from *$\bar{e}_2$ were considered with the *$\bar{o}$ data in 4.4.c. The ⟨e⟩ will be described mainly in Chapter VI. The graphs which require phonemic/phonetic explication yet are in particular the ⟨ea⟩, ⟨ei⟩ and ⟨i⟩, and the ⟨eo⟩ and ⟨io⟩.

4.5.a ⟨ea⟩ for Gmc. *$\bar{e}_2$

The ⟨ea⟩ data (cf. 3.6.a) would seem to allow the allocation of ⟨ea⟩ to two of the three dialects, either to Franc. and Alem.[117] or to Bav. and Alem. Bav. has the smallest number of citations (and they are limited to proper names and pronouns), but contrary to Franc. they are reasonably certain Bav. The Franconian list could virtually be eliminated if the Tatian γ ⟨ea⟩ were considered outside influences. A confusion with the OHG monophthongization, which might be

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[117] Braune, Helm, and Mitzka, par. 35, p. 32., say: ". . .daneben tritt bald alem. fränk. ea, nicht im Bair. auf."

looked for (parallel to the Bav. ⟨oa⟩~⟨ao⟩~⟨o⟩, cf. 4.2.a) to help clarify the ⟨ea⟩ spellings, is non-existant except in the Hild. where ⟨æ⟩, ⟨ae⟩, and ⟨ę⟩ spellings all reflect Gmc. *$\bar{e}_2$ and Gmc. *ai, e.g. furlaet and raet.[118] Otherwise nowhere in the data is there ⟨ae⟩ for Gmc. *$\bar{e}_2$ (two of the five polyphthongal *$\bar{e}_2$ writings in pronouns contain ⟨-ae⟩, Monsee Frag., and one has ⟨-æ⟩).[119] But ⟨ea⟩ for Gmc. *ai is absolutely out of the question.

In considering some sort of Mod. Germ. survival of a sound represented by the ⟨ea⟩, a situation similar to that of ⟨oa⟩ is found. Weinhold records a present-day ea for certain areas of Alem. as also for some Bav. regions.[120] In neither dialect does it reflect Gmc. *$\bar{e}_2$.[121] Phonetically the OHG ⟨ea⟩ must differ from the modern ⟨ea⟩ as follows from the ⟨oa⟩ discussion (cf. 4.2.b).

4.5.b ⟨ei⟩ for Gmc. *$\bar{e}_2$

If there is any contact with the OHG monophthongization,

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[118] H. Pongs, Das Hildebrandslied, Ueberlieferung und Lautstand im Rahmen der ahd. Literatur, (Marburg: Druck v. W. Hütter GmbH, M. Gladbach, 1913), pp. 58-9.

[119] Both the Monsee Frag and the Isidor are almost unique in Franc. for having some ae writings for Gmc. ai e, but also for Gmc e ; cf. Hench, "Der althochdeutsche Isidor," p. 66., and Hench, The Monsee Fragments (Strassburg: K. J. Trübner, 1890), p. 102.

[120] Weinhold, Alemannische Grammatik, par. 55, p. 53; and Weinhold, Bairische Grammatik, par. 73, pp. 78-9.

[121] Ibid.; L. Jutz, Die alemannischen Mundarten (Halle: (Salle) Max Niemeyer Verlag, 1931), pp. 49 ff. and pp. 133 ff.; Keller, p. 210., includes ⟨ea⟩ in an Up. Austrian, whereas the Rh. Franc. Darmstadt dialect lacks it, pp. 166 ff.

it is probably not among the ⟨ea⟩, ⟨ae⟩ writings and the like. Perhaps a connection can be made with the ⟨ei⟩ spellings (3.6.b). The ⟨ei⟩ are mainly Franc. and Alem; they are relatively early and occur yet with the old monophthong. According to Brinkmann ⟨ei⟩ is also found for Gmc. *ai > ē. Two of the three sources (the Franc. Gl. Xanti and Frankfurt Gl. 139, the Alem. Rb) which form part of the data and which use ⟨ei⟩ for OHG ē < Gmc. *ai, use it also for Gmc. *ē$_2$. These are the two Franc. texts. Brinkmann thinks therefore, that this ⟨ei⟩ may equal ē.[122] Karstien considers the fact that the old Alem. glosses write ⟨ei⟩ for closed short e resulting from i-umlaut of a.[123]

However, the Frankf. Gl. Xanti and Rb also have ⟨e⟩ for ei < Gmc. *ai, a fact which could be interpreted in various ways. It might be used to disprove the assumption mentioned above that ⟨ei⟩ (for Gmc. *ē$_2$) equals ē; perhaps Gmc. *ai actually monophthongizes where it is not expected to, or scribal error may have occurred,[124] among other possibilities. The data are slight from several points of view, but it might be possible that the ⟨e⟩ and ⟨ei⟩ writing confusion does signal

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[122]Brinkmann, pp. 167, 173.

[123]Karstien, "Altalemannische BI-HEIALT," pp. 25-6; but, p. 26, Sievers contends (in private correspondence with Karstien) that ⟨ei⟩ for umlaut ę equals a diphthong.

[124]Brinkmann, p. 167., claims: "Rb wird ausscheiden müssen, da hier offensichtlich Schreibernachlässigkeit vorliegt;" Schatz, Althochdeutsche Grammatik, par. 27, p. 29., writes: "Im Alem. ist e für ei viel seltener als im Bair., in dem e als Verschreibung gelten muss. . ."

an overlapping best expressed by a compromise term as diphthongal.[125] The Franc. citation Weinheim would support such a contact. Some of the assumptions made for the pronunciation of OHG ō < Gmc. *ō can also be applied to the OHG ē < Gmc. *$ē_2$, e.g. dialectal variation of its quality, proximity to the new OHG ē (<*ai). The latter point is carried in part by this occurrence of ⟨ei⟩ (used also for Gmc. *ai and ⟨e⟩ used for ⟨ei⟩) alongside the old ⟨e⟩ in some texts (cf. further Ch. VI).[126]

The Isidor uses ⟨ea⟩ in one verb form firleazssi (3rd pers. sg. pret. subj.). The same verb is also written firleizssi. Another such pair in the data is the Alem. Kb meatō (dat. pl.) and meida (gen. sg.). Two such examples cannot establish a general trend, but they at least point in a certain direction. The ⟨ei⟩ probably may not be as clearly as diphthongal as the ⟨ea⟩; it has a place somewhere between the ⟨e⟩ and ⟨ea⟩. In a text which has both spellings it is likely that only one signals a diphthong. No evidence is seen to determine two diphthong types here. Rather, it would seem analogous, to a degree, to the ⟨a⟩ and/or "early"-⟨u⟩ spellings for Gmc./OHG ō (cf. 4.3.b, c, d).

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[125] Brinkmann, p. 167., surmises for the Gmc. *ai reflexes in this case: ". . .umgekehrte Schreibung. . .oder Unsicherheit, weil vielleicht zwischen ē und ei keine feste Abgrenzung galt." But for ⟨ei⟩ (Gmc. *$ē_2$) he says, p. 173: "Das müsste ei doch wohl den Monophthong meinen (oder Fehler für ie?)."

[126] See also fn. 41 of 3.6.a above which may pertain to the nature of the OHG ē < Gmc. *$ē_2$, in regard to short quantity writings.

4.5.c ⟨i⟩ for Gmc. *$\bar{e}_2$

The occurrences with ⟨i⟩ (3.6.b) are later, on the whole, than those with ⟨ei⟩.[127] They are prevalent, if anywhere, in Bav. If the Franc. Rigila and Liba are based on Gmc. *$\bar{e}_2$ and the five Alem Jb, Rd and Jc citations (two firro, two firrota and one uuillachan) can be derived from OHG $\bar{e}_2$, then the ⟨i⟩ spellings could be significant relative to the OHG $\bar{I}$. The NHG reflexes of the two Franc. citations would require derivation from OHG $\bar{I}$. The five Alem. entries, actually two roots, stem from an original Lat. $\bar{e}$ and were probably incorporated into the vocabulary during the OHG period when *$\bar{e}_2$ was already diphthongizing; therefore they are reflected by OHG $\bar{I}$.[128] The NHG reflexes of the ⟨i⟩ in firro (nom. pl.) and firrota (3rd pers. sg. pret.) is /ei/. These Franc.[129] and Alem. ⟨i⟩ spellings, if they are valid representatives of Gmc. *$\bar{e}_2$, could point to a direct approximation with OHG $\bar{I}$, but this is rather unlikely.[130]

Holzgraefe describes the ⟨i⟩ as ". . .der nhd.

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[127]For example, the Franc. Köln Gl. cc (10th c) has fleit, the parallel glosses of a century later, the Köln Gl. cc II has fliz.

[128]W. Franz, Die lateinisch-romanischen Elemente im Althochdeutschen (Strassburg: K. J. Trübner, 1884), p. 42.; Steinhauser, p. 104.

[129]Franck, Altfränkische Grammatik, par. 42.2, p. 52., assumes an $\bar{I}$-ablaut for the hir forms in Tatian.

[130]Perhaps Schindling is in error in listing the fir- forms. Wüllner, par. 1.3, p. 10., lists under *$\bar{e}_2$ a pherintac and comments: ". . .(nicht auf lat. feriae, sondern direct auf parasceve zurückzuführen?)." Cf. also the singular feratagum beside the two ⟨i⟩ spellings in the Monsee Frag., Hench, The Monsee Fragments, p. 101.

Aussprache entsprechend, . . ."[131] and Franck thinks that it is possibly a defective spelling for a diphthong.[132] In view of the fact that the ⟨i⟩ is found aside of ⟨ie⟩, (in Clm. 18140, ten ⟨i⟩ citations are aside of the predominant ⟨ie⟩; see ⟨u⟩/⟨uo⟩ in Clm. 18140, cf. fn. 51, 4.3.a), the ⟨i⟩ may already symbolize the new monophthong.

4.5.d ⟨eo⟩ and ⟨io⟩ for Gmc. *ē₂

The exclusively Alem. ⟨eo⟩ is not, contrary to Fasbender, limited to the Schlett. Gl. The correct explanation for this ⟨eo⟩, it seems, is not necessarily the one which Fasbender gives, since he limits it to the reduplicated verb citations. Following Braune, Helm, and Mitzka,[133] Fasbender claims that the ⟨eo⟩ of ceosun and the like are due to the pressure of the pattern of reduplicated verbs reflecting a Gmc. *eu preterite.[134] Sievers and Scherer deny such a reason; Janko accepts it partially.[135] Less than half of the ten

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[131] Holzgraefe, p. 15.

[132] Franck, Altfränkische Grammatik, par. 42.2, p. 52 and par. 38.6, p. 47.

[133] Braune, Helm, and Mitzka, par. 349, n. 1, p. 279.

[134] Fasbender, par. 6, p. 63.

[135] Sievers, "Kleine Beiträge zur deutschen Grammatik, II: Die reduplierten Praeterita," p. 508 ff. Josef Janko, Review of Die Schlettstadter Vergilglossen by Joseph Fasbender, AfdA, XXXII (1908), p. 275., writes: ". . .es ist daher m.e. die oben erwähnte directe wandlung von präteritalem ea zu eo (ceosun st. ceasun) und ein erst dadurch bewürkter engerer anschluss an die II classe (steozun) anzunehmen." (Class II equals *eu pret.; class I equals *ē₂ pret. of ablaut class 7, reduplicated verbs.)

citations are these reduplicated verbs, but they are, to be sure, all from the Schlett. Gl.: anakikeong, ceosun, neorin and uzkeoth.

Fasbender lists only the four cases above. The noun fleod in the Schlett. Gl. he classifies under Gmc. *eu (for the root of fliozzan with the Gmc. *t softened to d),[136] Perhaps this ordering is necessary to limit ⟨eo⟩ to the reduplicated verb spellings for his theory. Schatz [137] includes fleod as an $*\bar{e}_2$ reflex. The Lat. gloss beside it is electra,[138] which is virtually useless.

The Schlett. Gl. anakikeong can be matched by a Franc. anagegiongon (Cod. Brux. 18725, 9th c.) and a Bav. anagigiongan (Clm. 18140, 11th c.). Two Alem. glossaries give a fliod ('ballium')(Cod. Carolsruh St. P, 11th c. and Clm. 14689, 11th/12th c.). The Rh.-Franc. St. Gall Cod. 292 (10th c.) also has a fliod. It does not appear that this word is so rare that the fleod of the Schlett. Gl. could not be another occurrence of it.

The ⟨io⟩ writings as the ⟨eo⟩ writings are late; there are, however, some in all three main dialects, though mainly in Alem. The ⟨eo⟩ and ⟨io⟩ digraphs are also common spellings

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[136] Fasbender, par. 12, p. 71 and par. 48, p. 112; Janko, Review of Die Schlettstadter Vergilglossen, p. 277., suspects rather that this d is the result of an alternate stem formation of OHG fliozzan.

[137] Schatz, Althochdeutsche Grammatik, par. 22, p. 24.

[138] Steinmeyer and Sievers, II: Glossen mit nichtbiblischen Schriften (1882), p. 678.

in OHG for reflecting Gmc. *eu.[139] This /io/ (Gmc. *eu) finally coalesces with the new diphtong toward the end of the tenth century in /ie/.[140] It does not seem out of the question for the merger to have been dialectally earlier, perhaps before the 'final' /ie/. Janko assumes that if there is any interchange or an overlapping between the reflexes of Gmc. *$\bar{e}_2$ and Gmc. *eu, then they must evince a mutual exchange of symbols peculiar to each one.[141] This actually occurs in some documents,[142] but the Schlett. Gl. have mainly eo beside one ⟨ie⟩ and one ⟨io⟩ for Gmc. *eu. Since reflexes of Gmc. *$\bar{e}_2$ and of Gmc. *eu/OHG io finally merge, the use of ⟨eo⟩ for reflexes of both might indicate some degree of coalescence at that point—a coalescence which is general and not restricted to the reduplicated verbs. The situation may be the same with the ⟨io⟩ spellings for Gmc. *$\bar{e}_2$, except for Otfrid's ⟨io⟩ where assimilation is again active (cf. end 4.4.b above). Merger with Gmc. *eu/OHG io can also be taken into consideration with ⟨i⟩ spellings.

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[139] Braune, Helm, and Mitzka, par. 47, p. 44.

[140] Schatz, Althochdeutsche Grammatik, par. 39, p. 34.

[141] Janko, Review of Die Schlettstadter Vergilglossen, p. 275., writes: ". . .eine solche (eo st. ea, ia in der I cl) setzte aber in ahd. notwendig einen berührungspunkt beider redupl classen, also ein lautliches ausweichen des eo in der II cl. in ea, ia voraus. . ."

[142] Schatz, Althochdeutsche Grammatik, par. 39, p. 34.

CHAPTER V

THE THEORY OF ROMANCE INFLUENCE ON THE OHG DIPHTHONGIZATION

5.0 The Spread from Romance to Franconian

Frings and v. Wartburg are the main proponents of the theory that the OHG diphthongization was caused by Romance influence. Specifically, the Rom. influence is the Old French (Northgalloroman) diphthongization. The two diphthongizations are said to have mutually affected each other. Frings' conviction is succinctly put in his statement: "Das Germanische griff mit seinen Längen in das Romanische ein, das Romanische griff mit Diphthongen in das Germanische zurück."[1] The case, however, is not simply one of reciprocity. Rather, it is complex in almost every aspect, particularly in regard to the OF diphthongization itself, which needs to be abstracted from what v. Wartburg describes as: ". ...die ungeheuer verwickelten Diphthongierungserscheinungen in den romanischen Sprachen und Mundarten."[2]

Frings and v. Wartburg in keeping with theory localize its origin: ". . .in der Doppelsprachigkeit des Gebietes Loire, Schelde, Maas, Rhein, Mosel. . ."[3] This bilingual area

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[1]Frings, "Germanisch $\bar{O}$ und $\bar{E}$," p. 103.

[2]W. v. Wartburg, Review of "Umlaut und Diphthongierung in der Romania," by F. Schürr, ZfrPhil, LVIII (1938), p. 378.

[3]Frings, "Germanisch $\bar{O}$ und $\bar{E}$," p. 103.

resulted from several Franc. settlements forming a Franc. superstratum on the Rom. North-Gallic territory.[4] Because of the fact that the East-OF dialect of Wallon has diphthongization of *ĕ and *ŏ also in closed syllable,[5] it is sometimes felt to have been the strategic interchange area. As an example of this Franck cites the Lat. loan presbyter into Rom. and Gmc. In OF it occurs nowhere as a diphthongized form except in the Wallon priestre.[6]

For the efficacy of a superstratum theory J. van Dam proposes two requirements; he says: "Eine gute. . .Superstrattheorie muss zwei Bedingungen erfüllen, erstens müssen die beobachteten Sprachveränderungen den artikulatorischen Gewohnheiten der beeinflussenden Sprache einigermassen entsprechen; zweitens muss auch zeitlich ein gewisser Zusammenhang zwischen Eroberung und Sprachveränderung bestehen:. . ."[7] To the degree in which these are recoverable, both conditions could probably be met by this sound change.

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[4]W. v. Wartburg, "Die Entstehung der Sprachgrenzen im Innern der Romania," PBB, LVIII (1934), pp. 219 ff.; see also fn. 22 below.

[5]For particulars see L. Remacle "Le Problème de l'ancien Wallon," Bibliothèque de la Faculté de Philosophie et Lettres de l'université de Liège, CIX (1948), par. 11, p. 49 and par. 22, p. 62.

[6]Franck, "Der Diphthong EA, IE im Althochdeutschen," p. 44.

[7]J. van Dam in "Substrato, Superstrato, Adstrato," Réponses au Questionnaire Vme. Congrès International des Linguistes (Bruges: Imprimerie Sainte Catherine, 1939) p. 50.

5.1 The Old French Diphthongization

Classical Latin has a five vowel system in which length was phonemic, therefore, ten vowels (e.g. pālus ('stake'): palūs ('marsh')). In Vulgar Latin quantity opposition gives way to a quality distinction netting seven vowels:

Cl quantity: ī i ē e ā a o ō u ū
VL quality: i ẹ ę a ǫ ọ u

In certain individual Romance dialects length is then signified by syllable structure. A vowel is long in free position, i.e., -CV̄C- or -CV̄SL- (S=stop, L=liquid). This length feature is probably no reintroduction, as such, but rather a reflex of the former Lat. quantity relevance which did not favor a -V̄CC- sequence (e.g. stēlla > stēla).[8]

VL ę́, ǫ́ > OF ię́, uǫ́ (ué) and VL ẹ́, ọ́ > OF ei (oi), ou (eu) as exemplified by VL pede, novem > OF pied, nuef; VL tela solu > toile, seul. Rom. scholars are divided as to whether the diphthongization of the open and closed sets are simultaneous. Ch. Bruneau, v. Wartburg together with Frings place

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[8] See in Heinrich Lausberg, Romanische Sprachwissenschaft, I: Einleitung und Vokalismus (Berlin: Walter de Gruyter, 1956), pars. 156, 157, pp. 96-8 and par. 163, p. 101-2; cf. also in G. Rohlfs, Vom Vulgärlatein zum Altfranzösischen (Tübingen: Max Niemeyer Verlag, 1960), pp. 41-4, for a clear presentation. Rohlfs places the quantity displacement in the first centuries A.D., and certainly since the third century. Ed. Bourciez in Eléments de linguistique Romane (2nd ed. rev.; Paris: Librairie C. Klincksieck, 1923), p. 139 writes: "Vers la fin de l'Empire, . . ."

both in the early sixth century.[9] Schürr, who claims support in Meyer-Lübke's explication of the diphthongs,[10] considers them to be significantly non-simultaneous. Schürr distinguishes two stages of diphthongization for the open vowels: an earlier stage of palatally and velarly conditioned diphthongs belonging to the Common-Romance period, and a later stage of "spontaneous" diphthongs occurring in stressed open syllables in various and individual dialects.[11]

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[9]Ch. Bruneau, "La diphtongaison des voyelles françaises," ZfrPhil, LVII (1937), p. 182; W. v. Wartburg, "Die Ausgliederung der romanischen Sprachräume," ZfrPhil, (1936), p. 35; Frings, "Germanisch Ō und Ē," p. 99; cf. also G. Straka in "La Dislocation linguistique de la romania et la formation des langues romanes à la lumière de la chronologie relative des changements phonétiques," Revue de linguistique romane, XX, p. 253, distinguishes three points in time: ". . .les voyelles fermées é et o n'ont pu commencer à se diphthonguer qu'au début du VIe siècle au plus tôt, tandis que o uo doit remonter à la fin du IIIe siècle ou, au plus tard, au début du IVe, et e ie encore plus haut, au moins jusqu'au milieu du IIIe siècle."

[10]W. Meyer-Lübke, Historische Grammatik der Französischen Sprache, I: Laut- und Flexionslehre (2nd & 3rd ed. rev.; Heidelberg: Carl Winter Universitätsbuchhandlung, 1913), pars. 53 ff., pp. 57 ff. But as regards the two individual stages of the diphthongization of the open set (cf. text immediately following), whereas Schürr considers the palatally conditioned one more general (i.e., it is more widespread, occurring also in Provençal and including cases in checked position); Meyer-Lübke in Historische Grammatik, pars. 56 ff., pp. 60 ff., and E. Richter in "Beiträge zur Geschichte der Romanismen I-Chronologische Phonetik des Französischen bis zum Ende des 8. Jh," Beihefte zur ZfrPhil, LXXXII, p. 227., label it the "second" and "later" diphthongization (Schürr's 'earlier' stage).

[11]F. Schürr, "Umlaut und Diphthongierung in der Romania," RF, L (1936), pp. 276-7; However, Frings, "Germanisch Ō und Ē," pp. 101-2., for whom chronology seems irrelevant here, writes: "Wir fragen nicht, ob die Dehnung in offner Silbe (freier Stellung) als gemeinromanisch oder einzelsprachlich anzusetzen ist..." For a necessary clarification of the concepts 'Proto-Romanic, Proto-French,' see E. Pulgram The Tongues of Italy (Cambridge: Harvard University Press, 1958), pp. 226, 234, 323 and Ch. XXIII.

Schürr differentiates the diphthongizations not only in time but also in kind, i.e. falling and rising. Because of the tendency to lump them together temporally and because A. Schmitt points out that: ". . .der weitaus grösste Teil der Diphthonge auf abschwellende Intonation zurückgeht, wie diese überhaupt in unseren europäischen Sprachen die ungleich grössere Rolle spielt;"[12] many scholars consider the two diphthongizations as the direct result of the same initial cause, "abschwellende Intonation." In the case of the rising diphthongs a secondary causal factor is added, namely "nachträgliche Verlegung des Druckgipfels." Schürr claims that the evidence for such a shift in accent has not yet been, nor probably will be found anywhere in the Romance area.[13]

Schürr's explication of the bilevel diphthongization rests on sound law and analogy. His formulation is essentially the following: ę and ǫ were conditioned by umlaut (palatal and velar) to i<u>é</u> and u<u>ó</u> prehistorically; these were transferred analogically to unconditioned lengthened <u>é</u> and <u>ó</u> in free position,[14] some remaining lengthened vowels at the same

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[12] A. Schmitt, <u>Akzent und Diphthongierung</u> (Heidelberg: Carl Winters Universitätsbuchhandlung, 1931), p. 112.

[13] F. Schürr, "Die nordfranzösische Diphthongierung," <u>RF</u>, LIV (1940), pp. 62-3.

[14] The transfer rationale Schürr explains in "La diphtongaison romane," <u>RLR</u>, XX (1956), p. 20., as follows: "Le premier effect de l'allongement de <u>é</u>, <u>ó</u> libres a bien été leur remplacement par les <u>ié</u>, <u>uó</u> métaphoniques préexistants, considérés comme leurs variantes plus longues dans les systèmes phonologiques où ils étaient disponsibles n'ayant pas ou plus de fonction à l'égard d'une flexion interne."

time developed into falling diphthongs.[15]

5.2 Germanic Influence in Romance?

Schürr's theory is not totally rejected by v. Wartburg and Frings, nor does Schürr disprove their main contention that Franc. influenced Galloromance. Schürr denies a common VL lengthening of tonic free vowels; he rather attributes it to individual dialects, on some of which a Gmc. influence[16] would have been impossible. v.Wartburg, on the other hand, considers the lengthening of vowels in open syllables as incipient in or even peculiar to VL, and prefers to say that this quantitative change was without effect in Iberoromance and Provençal, the former of which diphthongizes in both free and checked positions, the latter preserves a monophthong.[17] He insists on the Gmc. influence in Northgallic or French: "Es liegt daher nahe, zu schliessen, dass die besonders kräftige

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[15]Schürr, "Die nordfranzösische Diphthongierung," p. 65; see also Schürr's articles cited in fnn. 11 and 14 above and his "Nochmals über Umlaut und Diphthongierung in der Romania," RF, LII (1938).

[16]H. Kuen in his Review of Evolution et structure de la langue française by W. v. Wartburg, Zffrz. SL, LXIII (1934) p. 502., asks: "Sollte man also nicht noch einen Schritt weiter gehen und annehmen, dass die Neuregelung der Quantität nach der Silbenstellung im Norden der Romania überhaupt erst durch den germanischen Einfluss ins Rollen gekommen ist?" Wartburg in "Die Ausgliederung der romanischen Sprachräume," fn. 1, p. 33., interprets this as an implication that the lengthening of free vowels in Romance is, generally, due to Germanic, which is not the case.

[17]Wiget, p. 20., notes: "Im Romanischen ist die Diphthongierung auf einem Teil des Gebietes unterblieben. Daraus darf man gewiss nicht schliessen, dass die Diphthongierung oder besser Zirkumflektierung erst einzelsprachlich erfolgt sei. . ." and he compares this phenomenon with cases of Swiss German n-syncopation with compensatory lengthening in which diphthongs and monophthongs occur side by side.

Längung der Vokale in freier Silbe auf die Rechnung fränkischen Einflusses zu setzen ist."[18] More mitigated yet is the theory of Ch. Bruneau, who denies any outright Gmc. influence: ". . .la substitution du système vocalique frank au système gallo-roman ne paraît assez difficile à accepter; . . ."[19] but attributes the diphthongization to a disorder or breakdown in the suprasegmental structure of the original stratum in a bilingual area. Ultimately, it appears, that the views of v. Wartburg and Bruneau differ only in degree. On the other hand, a somewhat more teleological view in the Bruneau direction, i.e. systemic cause, is advanced by Weinrich, who, for his part, in essence follows the Schür theory in that he attributes the original rising diphthongs to umlaut effect. But, according to Weinrich, their generalization is due to internal pattern pressure ordered by 'phonological consciousness;' he explains: "Dabei wacht das phonologische Bewusstsein darüber, dass die Ergebnisse [the newly lengthened free ē and ō] weder

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[18] v. Wartburg, "Die Ausgliederung der romanischen Sprachräume, p. 33. He explains more distinctly, pp. 32-3,: "In der Tat machte das Germanische einen sehr starken, unzweideutigen Unterschied zwischen langen und kurzen Vokalen [and] diese Differenzierung (die Umgestaltung der Tonvokale in freier Silbe) beruht auf der starken Dehnung der Vokale, verbunden mit dem heftigen Expirationsakzent, der den Germanen eigentümlich war." Apparently v. Wartburg holds a direct transmission of Franc. suprasegmentals, but a transfer of phonemes only in so far as they are their bearers.

[19] Ch. Bruneau, p. 186. He reasons: "Tandis qu'il n'y a aucun doute que l'ébranlement du système d'articulation traditionnel n'ait été profond chez les Romans bilingues. . . C'est par cet ébranlement que j'explique l'instabilité de toutes les voyelles; une conséquence naturelle de cette instabilité a été la diphtongaison de toutes les voyelles qui par leur nature et leur position, étaient susceptibles de se diphtonguer."

mit den Langvokalen ē und ō, noch mit dem Langvokal ā kollidieren."[20] Baldinger finds a dead-end in Weinrich's reasoning; [he asks:] "Und auf dieser schmalen Basis [rising diphthongization in free tonic syllable by umlaut] hätte sich das "phonologische Bewusstsein" ausgewirkt?. . .Hätten embryonale ie, uo-Diphthonge (als Hypothese für die ganze Galloromania) in Nordfrankreich in den vielleicht späteren Diphthongen eine Stütze gefunden, während sie im Süden zurückgebildet wären?"[21]

Finally, it might be asked whether the tonic free long ę and ǫ could have undergone diphthongization in OF without the influence of the Gmc. superstratum. The question can only be posed hypothetically since the Gmc., specifically Franc. here, infiltration into Rom. territory is a historically established fact.[22] One might attempt to reconstruct a tendency towards diphthongization in a Proto-French phonemic system by means of those Rom. dialects which certainly were lacking

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[20] H. Weinrich, "Phonologische Studien zur romanischen Sprachgeschichte," Forsch. zr Phil., VI (1958), p. 140. For a more complete definition of "phonologisches Bewusstsein" see Weinrich, "Phonemkollisionen und phonologisches Bewusstsein," Phonetica, Suppl. ad IV (1959), p. 52., where he characterizes it as: ". . .der Wächter der phonologischen Oppositionen."

[21] K. Baldinger, "Zu Weinrichs Phonologischen Studien," ZfrPhil, LXXIV (1958), p. 448.

[22] See, among others, E. Gamillscheg, Romania Germanica, I: Zu den ältesten Berührungen zwischen Römern und Germanen. Die Franken. Die Westgoten (Grundriss der Germanischen Philologie, XI, pt. 1;" Berlin: Walter de Gruyter & Co., 1934); See also a later work of Gamillscheg, "Germanische Siedlung in Belgien und Nordfrankreich, I: Die fränkische Einwanderung und junggermanische Zuwanderung," Abhandlungen der Preussichen Akademie der Wissenschaften, XII (1937).

any Gmc. influence. The yield of such a reconstruction would in all probability be highly fictitious.[23]

5.3 French Influence on the OHG Diphthongization

5.3.a Wiget's View

Opinions differ as to the exact nature of the French intervention in the OHG diphthongization. A view very much open to challenge is that of Wiget, who considers the diphthongization as a possible result of sound substitution (cf. 4.0.a). His argument apparently rests to a great extent upon graphic substitution. Wiget thinks OHG orthography represents some of the Lat. graphic habits of the time, which used ⟨e,o⟩ for [ẽ, õ, ie, uo] but also for the remaining OHG e- and o-sounds.[24] Secondly, Wiget, following Franck,[25] maintains that the Lat. loans came into Germ. already as diphthongal forms. Moreover, the Rom. borrowings from Germ. appear with diphthongs. However, his main contention that it is possible that the OHG diphthongization is already prehistoric seems trivial in comparison with his statement: "Man könnte sogar im Hinblick auf die geographische Verbreitung des Lautwandels in den altdeutschen Sprachen—Anfrk., westlicher Teil des Asächs. und das ganze hd. Gebiet—versucht sein an roman. Lautsubstitution

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[23] See E. Pulgram, "Proto-Indo-European Reality and Reconstruction," Lang., XXXV (1959), pp. 422-3 and especially fn. 8 there.

[24] Wiget, p. 22.

[25] Franck in "Der Diphthong EA, IE im Althochdeutschen," p. 43., writes: ". . .auch sie (lehnwörter im germ.) haben zuerst den laut eə, der mit e bezeichnet ist."

e o (bzw. ie uo) für deutsch ē ō zu denken."[26] H. Penzl points out that: "the actual borrowing of foreign phonemes is a rare occurrence."[27] Bloomfield, too, makes clear that sound substitution by borrowing is rather a contributing factor to phonetic change than phonetic change itself; he writes: "If the difference between the two variants should become distinctive, then the comparatist would say that a sound-change had occurred, but he would find the results of this sound change overlaid, from the very start, by the effects of borrowing and of analogic change."[28] Linguistic spread ("geographische Verbreitung", Wiget above) is a thing quite apart from linguistic change.

5.3.b Views of Hassmann, Steinhauser, Frings

An opposite attitude, i.e. very noncommital as to the nature of the influence is the presentation of Hassmann (cf. 4.0.b) which holds that uo and ie are only intermediate stages between two monophthongal stages which, he claims, can be explained by means of Rom. influence. He concentrates particularly on the Bav. area to which he attributes two distinct times of diphthongization, the first of which came under Romance effect.[29]

A moderate view is held by Steinhauser who considers the OHG diphthongization as one of the several language phenomena indicative of a Franco-German interchange; he describes,

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[26]Wiget, p. 24.

[27]Penzl, "The Evidence for Phonemic Changes," p. 200.

[28]L. Bloomfield, Language (New York: Henry Holt and Co., 1939), p. 366; see p. 479 also for "linguistic spread" (cf. 6.4.a).

[29]Hassmann, p. 191; and see 4.0.b.

perhaps somewhat too indiscriminately: ". . .eine gemeinsame, gleichlaufende Entwicklung infolge teilweiser Anpassung des deutschen Sprechstiles an den romanischen, . . .die auch von einer Änderung der Akzent- und Spannungsverhältnisse begleitet war."[30] He finds the Rom. quantitative change particularly helpful as the explanation for the OF diphthongization and as a possible catalyst for the OHG diphthongization since ". . .es schwerfällt, für die ahd. Diphthongierung bzw. die ihr vorgehende Spannungsänderung eine innerdeutsche Ursache zu finden."[31]

Similarly, Frings speaks of Rom. length coupled with Gmc. stress accent: "Also reihten sich nunmehr nǭve, cǭr, pēde, mēl, brǭther, fǭt, mēda zu einer Linie."[32] From the way they act in some of the Gmc. languages Frings even predicts the probable development of ǭ and ē without Rom. lengthening in OHG: "Ohne den romanischen Eingriff wären die offenen ǭ und ē wie im ingwäonisch-nordischen Kreis so auch im Niederländischen und Deutschen wohl zu geschlossenen ō und ē geworden."[33] That this is a possibility must be granted, but it

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[30]Steinhauser, p. 94.

[31]Ibid., p. 95.; Wartburg, too, considers the overlap to be at the suprasegmental level (cf. fn. 18 above). Expressed however from the Rom. side he writes in "Die Ausgliederung der romanischen Sprachräume," p. 36: "In dem Latein, das die fränkischen Führer lernten, fand sich ein leichter Quantitätsunterschied zwischen den Vokalen in freier und gedeckter Stellung. Diesen Unterschied gab der Franke so wieder, wie er es von seiner eigenen Sprache her gewohnt war, d.h. er verstärkte ihn um ein mehrfaches."

[32]Frings, "Französisch und Fränkisch," p. 278.

[33]Ibid.

is doubtful whether the answer is that simple, i.e., whether other factors necessary for the retention of a monophthong are similar enough or even present in both groups of dialects.

5.4 Influence Through Loanword Contacts

Whether the loanwords can yield evidence as to nature and cause of the OF and OHG diphthongizations is questionable. F. Kauffmann vaguely surmises: ". . .dass auf deutscher seite die diphthongierung durch lehnwörter wie tēgula > ziagal, domus> duom in gang gebracht worden sei."[34] To be sure, although most of the Gmc. *$\bar{e}_2$ roots, except the reduplicating verbs class 7-preterites are taken from Rom., the complete *$\bar{e}_2$ and *$\bar{o}$ loan vocabulary is slight. The following form the commonly discussed loan vocabulary:[35]

OHG ie:

a) Lat. $\bar{e}$	>	Gmc. *$\bar{e}_2$	>	OHG ie
1) bēta				bieza 'Roterübe'
2) flētomu				fliotma 'Fliete'
3) mēsa				mias 'Tisch'
4) pēsiles				phiosal 'heizbarer Raum'
5) rēmus				riem(e) 'Ruder'
6) tēgula				ziegal 'Ziegel'
7) thēca				ziecha 'Bettzieche'
b) Γραικοί (Gk. cf. fn. 36 below)				Chriech 'Grieche'

[34] Fr. Kauffmann, "Das Problem der Hochdeutschen Lautverschiebung," ZfrPhil, XLVI (1915), fn. 3, p. 359.

[35] The phonology of the borrowed items has been investigated largely for purposes of dating which, in turn, yields phonological information and vice versa. This list is compiled mainly from Mackel, pp. 254 ff., Steinhauser, pp. 97 ff. and Frings, "Germanisch $\bar{O}$ und $\bar{E}$," pp. 107 ff. Each item does not necessarily advance through the between stages which the group headings imply, so, e.g. Franck in "Der Diphthong EA, IE im Althochdeutschen," pp. 44-5., speaks of the possibility that Lat. presbyter and Treviri were borrowed in Gmc. in diphthongal form.

c)	Lat. ĕ > Rom. *ę̄ >	Gmc. *ē$_2$ >	OHG ie	
	1) breve		briaf	'Brief'
	2) febris		fiebar	'Fieber'
	3) Petrus		Pietar	'Peter'
	4) presbyter		priester	'Priester'
	5) Raetia		Riez	'Rätien'
	6) speculum		spiegal	'Spiegel'
	7) Treviri		Triere	'Trier'
d)	*c(e)rę̄́sea (Rom)		chriesi (Alem.)	'Kirsche

OHG uo:

a)	Lat. ŏ > Rom. *ǭ >	Gmc. *ō >	OHG uo	
	1) crocus		chruogo	'Safran'
	2) domus		tuom	'Dom'
	3) schola		scuola	'Schule'
b)	*alemōs(i)na (Gall-Rom)		almuosan	'Almosen'
c)	brōgilus (Celt.-Rom)		bruil (*bruoil)	'feuchte bebuschte Wiese'

OF ie:

a)	Gmc. *ē$_2$ > *tēri	Rom. *ę̄ >	OF ie tiere	'Reihe'
b)	Gmc. *ĕ *medus		mies	'Met'
c)	Gmc. *ē$_1$ bēra (OFranc.)		biere	'Bahre'

OF uo, ue:

a)	Gmc. *ō >	Rom. *ǭ >	OF uo, ue:	
	1) *brōjan		brouir	'versengen NF Stoffe dämpfen'
	2) *faldastōl		faldastuel	'Lehnstuhl'
	3) *fōdra		fuer(r)e	'Scheide, NF Futterstroh'
	4) *hrōk		fruec	'Saatkrähe'
	5) *lōþra		luere	'Lockspeise'
	6) *urgōli		orgueil	'Stolz'

b. (Gmc. *ō) > OHG uo > OF uo, ue
fluot fluet 'Flut'
(O Franc.)
spuola (Ital) sp(u)ola 'Weberschiffchen'

c. Gmc. *ǒ > Rom.*ǭ > OF ue
*hosa huese 'Beinbekleidung'

The Lat. closed ē group (Lat. ē > OHG ie),[36] according to prevalent theories, was lowered to Gmc. *ē2 before diphthongizing in Gmc. Had it not been lowered, the reflex would be ī as seen by loans as Lat. sēta: OHG sīda ('Seide'). Steinhauser reasons that the Lat. closed ē group was borrowed before the sēta-type group, since four of them, 1) bēta, 4) pēsiles, 6) tēgula and 7) thēca, underwent the OHG soundshift and since none of them represent Christian concepts as found in the other group.[37] Steinhauser, therefore, considers the earlier group (Lat. ē > OHG ie) pre-sixth century; the later group (Lat. ē > OHG ī, e.g. sēta: sīda) he labels "jüngere Entlehnungen," which were transferred certainly after Lat. ē could no longer be replaced by Gmc. *ē2 which was lowered. The already open ę̄-group (Lat. ĕ > OHG ie), via Rom., he also considers post 600.[38]

Frings disagrees, maintaining that some of the Lat. ē: Dutch ī transfer words date back to pre-fifth century. He prefers to place a closed ē-type as thēca after 500 and

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[36]Much speculating is done in regard to the original vowel quantity of some of the words, e.g. Raetia may have been -ē-; Steinhauser, p. 100-01. Sievers, in "Grammatische Miscellen," p. 410, tries to justify a Gmc. close ē as the reflex of Γραικοί by postulating a Gk. *grāikos > Gmc. *krāikaz > kreikaz > krekas > Go. krēks. Steinhauser, pp. 104-5, thinks that the originally open -ai- was closed to ē via late Illyrian.

[37]Steinhauser, p. 102. [38]Ibid., pp. 104-5.

attributes its diphthongization to sound confusion with the open ę̄-type. Frings explains: "Bei Mischung von ē- und ę̄-Strömungen im eroberten Grenzland konnte ē zu ę̄ werden. . . auf dem Wege erneuter Entlehnung über eine Mönchssprache [or by]. . .vulgäres 'Adoptions'-ę̄ der römisch-kolonialen Soldatensprache."[39] He speaks of loans in terms of "Einströmen,"[40] which does not seem all too realistic since the number of loanwords is not especially sizeable (nor representative) and since most require individual treatment as to exact time, place, and manner of transfer.

Lüdtke's understanding of the loanwords is seemingly a combination of parts of both Frings' and Steinhauser's explanations but arrived at through his unique interpretation of the origin of Gmc. *ē₂ (cf. 2.1). Lüdtke, too, concentrates on the fact that some Lat. closed ē words are reflected by Gmc. *ē₂ rather than by *ī, which would be consistent with the rendering of all Lat. ō by Gmc. *ū. Moreover, the *ē₂ reflex is dialectally limited; Lüdtke follows Frings in the proportion: "nördliches ī gegenüber südliches ē₂, älteres ī gegenüber jüngeres ē₂."[41] Yet, Lüdtke's chronological assignment of the loanwords closely resembles Steinhauser's for OHG despite his (Lüdtke's) deceptive layering into three parts: a) Lat. ē > ī, e.g. pēnare > OHG pīnen ('martern'),[42]

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[39] Frings, "Germanisch ō und ē," pp. 109-10.

[40] Ibid., 110. [41] Lüdtke, p. 170.

[42] Steinhauser, p. 104., puts OHG pīnen into his later group, but qualifies it as: ". . .etwas früher übernommen. . ."

b) Lat. ē > ę̄2, e.g. pēsiles > OHG phiasal, MidLoGer. pīsel,

c) Lat. ē>ī and Rom. ē>ie, e.g. sēta > OHG sīda ('Seide'), Lat. breve > OHG briaf.[43] Lüdtke's group b and c correspond basically with Steinhauser's except for the allocation of the reflexes of Lat. ē > ī in the "North." Whereas Lüdtke puts, for example, Lat. thēca into the b-group in which it becomes OHG ziecha but Dutch tijk, showing the northern *ī/southern *ę̄2 isogloss, Steinhauser classifies ziecha as an earlier loan and tijk as a later one.[44]

Earlier than Steinhauser, Franz held that Lat.-Rom. closed ē in pre-OHG was rendered by Gmc. *ē, which then diphthongizes in OHG, but by ī in the OHG period itself. As proof for this chronology Franz lists for Lat. pēsiles: OHG phiesal the doublet pfīsal which "stände dann auf der Grenze und markiert die Berührung der beiden Perioden, welche man dann um die Mitte des 8. Jahrhunderts ansetzen könnte."[45] A different case entirely, but worthy of mention, is that of Lat. bēta which seemingly may have been borrowed twice into OHG, once as bieza ('rote Rübe'), once as bīza ('Beisskohl').[46]

Two of the Gmc. loans into Rom. are particularly problematic, *mĕdus (Gmc.* ĕ > OF ie) and *hŏsa (Gmc. *ŏ > OF ue).

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[43]Lüdtke, pp. 171-3.

[44]Cf. Lüdtke, p. 172; Steinhauser 101, 105.

[45]W. Franz, p. 41.

[46]Franck, "Der Diphthong EA, IE im Althochdeutschen," p. 47., postulates instead a second root: ". . .ein bīza aus mehr vulgärem bīta. . . ."

They are serviceable relative to one's position concerning the Gmc. influence upon OF. Frings, for example, utilizes the Gmc. short *ĕ word *mĕdus as proof that: ". . .die Dehnung erst nach dem Germaneneinfall erfolgt."[47] Lüdtke, however, is convinced that since these words were in open syllable in Gmc., they therefore were lengthened when taken into Rom. where the consonant opposition "(K)V̆K:(K)V̄" (Lüdtke) rather than vocalic length was relevant; he writes: "Es handelt sich also eindeutig um eine Anpassung an das bestehende romanische System."[48]

5.5 Phonetic Characteristics of the OF and OHG Diphthongizations

A. Schmitt thinks that the OHG diphthongization and the OF diphthongization are two different phenomena. He reasons that VL ę and ǫ, in contrast to the POHG *ē and *ō, are short and lax.[49] Schürr's theory would also reject lengthened vowels in the original diphthongization process which is conditioned and produces the rising /iẹ/, /uọ/ already prehistorically. v. Wartburg and Frings, however, assume lengthened open vowels before diphthongization, and, in fact, probably under Gmc. influence.[50]

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[47] Frings, "Französisch und Fränkisch," fn. 1, pp. 277-8.

[48] Lüdtke, Die strukturelle Entwicklung des romanischen Vokalismus ("Romanische Versuche und Vorarbeiten, 2"; Bonn: Romanisches Seminar an der Universität Bonn, 1956), p. 141.

[49] Schmitt, p. 132., writes "Die beiden Diphthongierungsvorgänge sind also voneinander zu trennen."

[50] For Schürr's and v. Wartburg's theories, see 5.1 and 5.2 above.

The other chief divergent aspect is the diphthongized product themselves. Whereas the OHG diphthongs are certainly falling, the OF appear as rising diphthongs (/ié/, /uó/), that is, diphthongs under rising modulation. Since this type of modulation appears irregular (cf. fn. 12 above), originally falling OF diphthongs are postulated by E. Richter (/i̯e/, /u̯o/). She claims, however,: "Die Akzentverschiebung von i̯e, u̯o zu ié, uó and alle weitere Veränderungen gehören der zweiten Periode an und finden viele Jahrhunderte später und unter gänzlich verschiedenen Akzentverhältnissen statt."[51] Schürr objects calling Richter's diphthong with accented on-glide "ein phonetisches Unding."[52] Frings, for his part, points out languages in which the rising and falling diphthongs coexist and admits this possibility for OF, (Das französische Nebeneinander. . .ist natürliche Folge ungespannter Grundlage. . . ."[53] (See also Sicilian dialect example 6.3.b below).

Hegedüs in his acoustic investigation of the Hungarian diphthong /uo/ found that it occurs as a falling, rising, or level diphthong according to the stress dependent upon the speech situation. He also, however, finds it thereby necessary to modify the conventional definition of diphthong (cf. fn. 43, 6.3.b), since in some environments the /uo/ is clearly disyllabic.[54]

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[51] E. Richter, "Beiträge zur Geschichte der Romanismen, I: Chronologische Phonetik des Französischen bis zum Ende des 8. Jahrhunderts," Beihefte zur ZfrPhil., LXXXII, p. 143.

[52] Schürr, "Die nordfranzösische Diphthongierung," p. 63.

[53] Frings, "Germanisch Ō und Ē," p. 105.

[54] Ludwig Hegedüs, "Neue Methoden in der Erforschung der Diphthonge," ZfPhon., IX (1956), p. 49.

For the opposite view, van Ginneken accepts a rising diphthong on the basis of the underlying monophthong; "J'explique cette différence [between ei and ié] par le fait que les longues fermées avaient le sommet de l'intensité sur la première more, tandis que les longues ouvertes l'avaient au contraire sur la deuxième."[55] (He obviously considers the vowel long.) The rising diphthong is also stressed by Schürr, but it replaces a short vowel. The later lengthening of the vowel brings with it, so to speak, the falling diphthong, (cf. fnn. 14 and 15 above).

There is no evidence for any intermediate oa-type stage development (contrary to Steinhauser, e.g.; cf. 4.0.c) in the CF development. Probably there is no intermediate stage in the OFranc. evolution either (and very possibly in neither of the other two dialects, cf. 6.2.b below). The oldest French monument is the Oaths of Strassbourg (842), a political document which is bilingual and contains OF single graphs contrasting with digraphs in the OFranc. part, e.g. poplo beside bruodher. The OF Eulalia, a poetical sequence, about 880, gives the first graphic evidence of diphthongination in a form as ciel.[56]

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[55] J. van Ginneken, Principes de Linguistique psychologique (Amsterdam: E. van der Vecht, 1907) par. 471, p. 388.

[56] Brinkmann, pp. 177-8; see Rohlfs, fn. 64, p.40 and pp. 85-6 for closer identification of the Oaths of Strassbourg and the Eulalia.

CHAPTER VI

INTERNAL FACTORS IN THE OHG DIPHTHONGIZATION

6.0 Phonetic System and Sound Change

In Chapters III and especially IV in which the phonemic/phonetic relevance of the various graphs was established, recourse was had to the graphic representation of several allied OHG, MHG and even early NHG sound changes. They are called allied because they in some way intrude, so to speak, in the sphere occupied by one sound phenomenon, or they are adjacent directly or indirectly to that phenomenon. If a graph is studied to extract its phonic value, that value can only be determined relative to another sound. This relativity concept is the well-established and effective working hypothesis of contemporary phonemic linguistics, explicated and illustrated with regard to various vowel systems by Trubetzkoy over thirty years ago and maintained by de Saussure already much earlier.[1]

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[1] N. Trubetzkoy, "Zur allgemeinen Theorie der phonologischen Vokalsysteme," TCLP, I (1929), pp. 39 ff; R. S. Wells in "De Saussure's System of Linguistics," Word, III (1947), p. 11., claims: "The crux of de Saussure's theory . . .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. . . .For them, to be is to be related."

If, as de Saussure (cf. Wells fn. 1) points out, existence results from relationship, then it is also logical that the evolution of a member of a whole is determined, at least in part, by the development of another or other members proximately, and remotely by that of all. The idea that one sound change (which involves the development of a member of a whole system) influences another, being a corollary to that of phonemic relativity, was also expressed by de Saussure by means of his similes of the solar system and chessboard.[2] The concept of the chessboard is extended by Jakobson and van Ginneken in giving a raison d'être to the above corollary. Van Ginneken writes: "Jakobson finds a whole new series of healing processes in the system. . . . A great many linguistic phenomena took place only in order to restore the equilibrium of a sound-system."[3]

The original concept that one sound or one sound change is effective upon another is often explained in psycho-linguistic terms so that it is difficult to understand it as a clear scientific function. On the one hand, some changes

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[2]Wells, p. 23.; van Ginneken, "Roman Jakobson: Pioneer of Diachronic Phonology," For Roman Jakobson (The Hague: Mouton and Co., 1956), p. 575.

[3]van Ginneken, "Roman Jakobson," pp. 575-6; A. Martinet, "Function, Structure and Sound Change," Word, VIII (1952), p. 3., explains: "It should further be stressed once more that we are ultimately concerned here with the behavior of speakers keeping distinct or merging various phonemes of a pattern and not at all with what has normally been so far the practically exclusive preoccupation of historical phoneticians, namely the mutual influencing of successive phonemes in the spoken chain."

in a system are "healing processes" (cf. fn. 3), on the other hand some are "prophylaxes."[4] In whatever way the changes are explained, they only underlie the purpose of the language organism which is communication. In order to communicate, the language organism, which is in an ever changing state (as any other organism), must also be in a functionable state, (cf. Martinet fn. 3).

As early as 1911 Wilmanns suggested that the OHG diphthongization came into being due to "Ein unbewusstes Streben, die verschiedenen Laute auseinander zu halten, . . ."[5] This is built on his observation that: "In demselben Masse als ai sich dem ē, au sich dem ō näherte, entfernten sich die alten ē und ō von ihrer ursprünglichen Form. . ."[6] Ingerid Dal[7] in 1951 supports Wilmanns' reasoning entirely, and very recently W. G. Moulton restated the theory saying: "Es handelt sich offenbar um einen phonologischen 'Schub'; die. . . Monophthongierungen ai > ē, au > ō übten auf die alten ē, ō einen strukturellen Druck aus; diese entwichen dadurch, dass sie zu den hineingleitenden Diphthongen ie, uo wurden und somit ihre gefährdeten Stellungen im System der langen Vokale verliessen."[8]

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[4]F. Twaddell, "The Inner Chronology of the Germanic Consonant Shift," JEGP, XXXVIII (1939), p. 342, interprets Kretschmer's (cf. fn. 11 below) view of the OHG consonant shift as being a "prophylactic sound change."

[5]Wilmanns, Deutsche Grammatik, par. 190.3, p. 265.

[6]Ibid.

[7]I. Dal, "Die ahd. Diphthongierung ē > ia, ie und ō > uo als Ergebnis einer sog. 'détress phonologique'," ArchfSnS, CLXXXVIII (1951), p. 115-6.

[8]William G. Moulton, "Lautwandel durch innere Kausalität: die ostschweizerische Vokalspaltung," Zfmafg, XXVIII (1961), p. 235.

Temporally the OHG monophthongization preceded the diphthongization so that quite clearly a Martinet "A⟶C⟶ chain, or push chain"[9] could be said to be involved between the two sound changes. The OHG ē (Gmc. *$\bar{e}_2$) was pressured into moving by the approaching new ē < OHG ai. Martinet would say that the "margin of security" between the two needed to be preserved; Dal calls it the requirement of "das Unterscheidungsvermögen" and Lausberg would explain that "infolge zu dichter Nachbarschaft," a state of "détresse phonologique" resulted.[10]

The concept that changes within a system are brought about by one another has become very powerful, to the exclusion of other possible causal factors.[11] In the literature concerned with the OHG diphthongization this theory of systemic ordering is generally represented as the theory diametrically opposed to that of the "Germanenthese" (Romanenthese), presented in the previous Chapter V, in determining a cause for the OHG diphthongization.

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[9]Martinet, "Function, Structure and Sound Change," p. 11; cf. also fn. 4 of 2.0 above.

[10]Martinet, Ibid., pp. 4 ff.; Dal, p. 116; Heinrich Lausberg, "Détresse phonologique und Mehrlautphoneme," Arch fSnS, CLXXXVII (1950), p. 66; cf. also fn. 20 of 5.2 above.

[11]For instance, P. Kretschmer in "Die Urgeschichte der Germanen und die germanische Lautverschiebung," Wiener Prähistorische Zeitschrift, XIX (1931), p. 280., is convinced that: ". . .die germanische Lautverschiebung als innersprachlicher Vorgang zu verstehen ist, dass sie mithin kein ethnisches Substrat erweist."

6.1 Pre-OHG and OHG Long Vowel Patterns

6.1.a Pre-OHG Long Vowels and Diphthongs

It was concluded that PGmc. has six long vowels: *ī *ē *ǣ *ā *ō *ū, (cf. 2.1). In pre-historic OHG */ǣ/ and */ā/ merged into */ā/,[12] so that OHG has five long vowels by the time of the onset of the historic period and probably earlier in what might be called Pre-OHG. POHG also has the four diphthong combinations */ai/, */eo/, */iu/ and */au/ (n.b. fn. 15 below). The table on page 127 represents the pertinent developments.

The distinctive features of the POHG long vowels and diphthongs can be assigned by determining their potential viewed through their outcome. The vowels of POHG *ī, *ū and *ā are said to "remain" in OHG. POHG */ā/ is derived from Gmc. *anh and Gmc. *ǣ. In MHG this /ā/ may undergo fronting by umlaut, which is already the case, allophonically at least, in OHG. The OHG, MHG /ī/ and /ū/ are removed in early MHG by changing into diphthongs, but the pattern has an /ī/ and /ū/ when the OHG diphthongs /ie/, /uo/ become monophthongs in MHG.

POHG *ai and *au, as is signalled orthographically, show a raising of ⟨a(i)⟩ to ⟨e(i)⟩ and of ⟨a(u)⟩ to ⟨o(u)⟩. The POHG */ai/, */au/ diphthongal clusters are either raised or eliminated before certain consonants where they become monophthongs /ē/ and /ō/. Most descriptions maintain that

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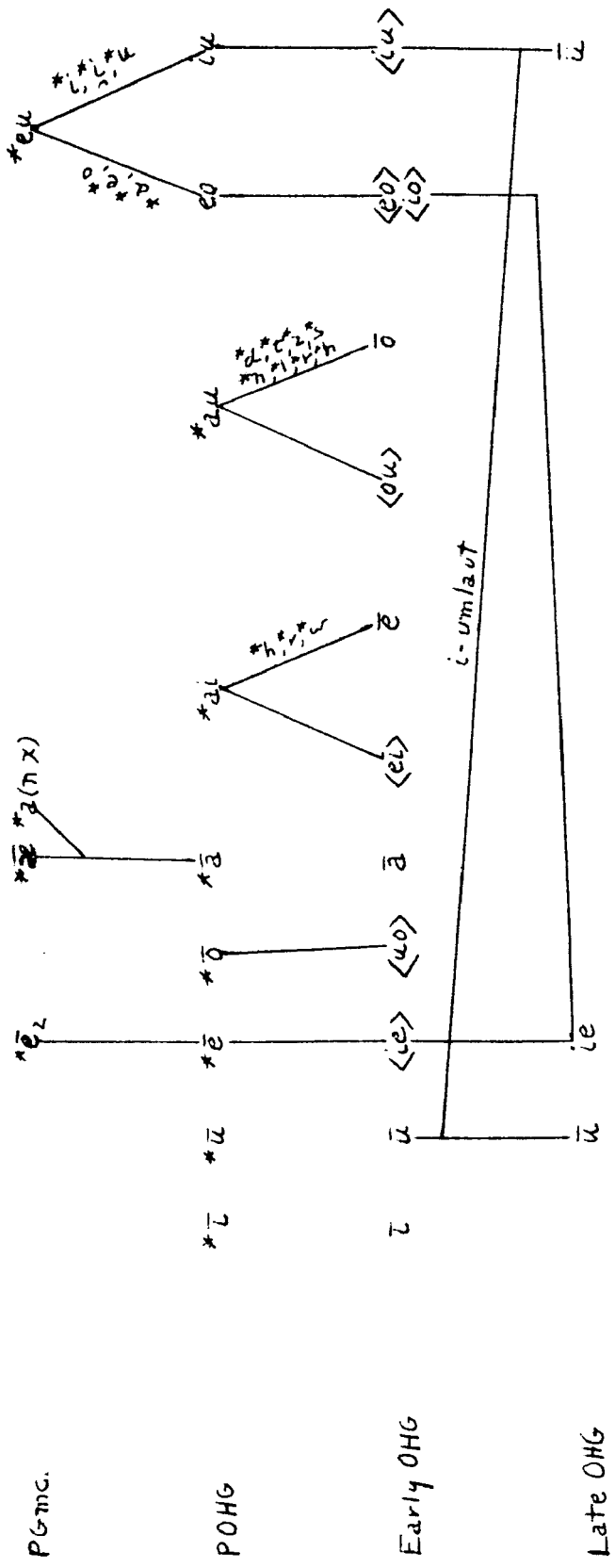
[12] Braune, Helm, and Mitzka, pars. 33 and 34, p. 31.


PGmc.
POHG
Early OHG
Late OHG
i-umlaut

/au/, for example, becomes ⟨ao⟩ (which implies a lowering of the second element). The resulting /ō/, on the other hand, points finally to the raising of the first element. /r/ and Gmc. */h/ condition *ai and *au. Penzl describes the effect of /r/ upon POHG *ai and *au as the ". . .removal of the second high component of the diphthong."[13] Schatz[14] lists some very few ⟨ee⟩, ⟨oc⟩ spellings for *ai and *au which could be understood as a raising of the first element of ⟨ae⟩, ⟨ao⟩.

POHG *eo and *iu are derived from P. Gmc. *eu which undergoes the phonemic split by conditioning dependent on a vowel in the following syllable.[15] In early OHG ⟨eo⟩ and ⟨io⟩ occur before original *a, *e, or *o in Franc.; in Alem. and in Bav. they occur before those vowels only if the vowels are preceded by dentals or Gmc. *h. In late OHG the consonantal conditioners are no longer relevant here: the general late OHG ⟨io⟩ becomes /ie/ and merges with /ie/ < POHG *ē2.

POHG *iu is reflected in early OHG as a diphthong; around the millenium it is monophthongized but still written ⟨iu⟩. As far as the u-element is concerned, a fronting may be

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[13] Penzl, "Old High German ⟨r⟩ and its Phonetic Identification," p. 496.

[14] Schatz, Althochdeutsche Grammatik, par. 30, p. 30 and par. 37, p. 33.

[15] Van Coetsem, p. 31, in establishing the origin of Gmc. *ē2 considers the development of Gmc. *eu similar in that it becomes *iu before *i and *j already in the Common Gmc. period. In other cases *eu and *eo occur. The *i or *j affects the changing of e > i (*eu > *iu). Wilmanns, Deutsche Grammatik, par. 183, pp. 255-6 claims that some eu-forms survive into OHG; cf. also Braune, Helm, and Mitzka, par. 47, n. 1, p. 45.

said to take place. A phoneme of a new fronted series comes into being; this is certain when the new /ü/ coalesces with the umlaut of /u/. The merger takes place mainly in Franc. and Alem. The monophthongization of /iu/ seems related to umlaut because in the Bav. area it occurs chiefly in words containing *i in final syllables; in other environments it remains a diphthong.

One of the main phonic directions which pervades the changes that take place between POHG and MHG, that is, within the OHG period proper, is raising. All three diphthongal groups experience a raised first element and retain it. A second phonic tendency is fronting. The new /ie/ from /io/ from */eu/ appears to be fronted; the new monophthong [ü] must be front since it merges with the umlaut of /ū/. (In MHG the entire new series of fronted long velar vowels become phonemically established but allophonically they exist already in OHG and probably earlier.)[16]

If in PGmc. *ā goes to *ō but *ē$_1$ goes to *ǣ and not *ā, it might be concluded that IE *ā which becomes Gmc. *ō must have been more of a back than a front vowel. The new PGmc. *ā <*anh (some of these *anh<*onh, e.g. *tong>*pank) may be slightly more of a central vowel; in OHG it is reflected by ā just as is the reflex of PGmc.*ē$_1$. It seems then that for

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[16]Penzl, "Umlaut and Secondary Umlaut in OHG," p. 224, writes: "The Proto-OHG velar vowels and diphthongs a ā o ō u ū au must have had special positional variants before following high front sounds, i.e. before i ī j . . ."

POHG the *ā is off-center, inclined to be a back vowel. Perhaps this is the situation just preceding the onset of the diphthongization. The long vowel pattern thus consists of five vowels distinguished by three tongue heights: */ā/ is low, */ē/ and */ō/ mid, and */ī/ and */ū/ high. There are essentially two series, a front series with */ī/ and */ē/ and a back series with */ū/, */ō/ and */ā/. The front vowels are unrounded, the back vowels rounded. The four POHG diphthong groups: */ai, */eo/, */iu/ and */au/ need to be regarded as similar in type to those postulated for IE and PGmc., that is, they are phonemic groups or phonemic clusters rather than diphthong phonemes.[17] This can quite justifiably be said since all clusters, */ai/, */eo/, */iu/ and */au/, change during the OHG period by modification of at least one of their individual components. Probably the separate elements of the diphthongs consist of the POHG short vowels */a/, */e/, */i/, */o/ and */u/.

6.1.b OHG Long Vowels and Diphthongs

It is difficult to establish definite time limits for the several changes listed in 6.1.a, which occurred simultaneously in so far as they all took place during the OHG period. Changes of *ai and *au to monophthongs seem to precede the diphthongization according to the orthographic evidence.

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[17] See van Coetsem, p. 24. In explaining the PIE diphthongs, van Coetsem follows Lehmann, Proto-Indo-European Phonology, p. 12 where he writes: "Phonemically we might define a diphthong as a combination of two (or more) phonemes, of which one is usually vocalic, the other(s) semi-vocalic; such combinations contrast minimally with unit syllabic phonemes."

There are only a few very isolated cases of diphthongization of the new monophthongs ē and ō, and this process is sometimes attributed to the evolution of some words in the pronominal group (cf. fn. 50, 3.7).

Although said to "remain" in OHG, the OHG /ā/ probably differs from the POHG */ā/ in being still more of a back vowel and perhaps slightly raised. /ā/ can maintain itself only in the environment of back and non-high front vowels. That it may be slightly raised seems reasonable in that its allophone before i-sounds is not only fronted but a raised sound; the /ā/ itself tends in some dialects and under certain conditions toward /ō/.[18] The OHG /ī/ and /ū/ which are retained throughout the period may undergo non-phonemic raising by virtue of the internal trend. The tendency of fronting may have advanced the /ī/ still more forward.

That the new OHG /ē/ (<*ai) and /ō/ (<*au) may have been very similar to the old */ō/ and */ē/ is based on several considerations. Many descriptions stress an open-closed distinction between the new and the old mid vowels. If the internal pressure theory (cf. 6.0) is rigidly followed, namely that the old /ē/ diphthongized to make room for the new /ē/, then a distinction between open and closed quality could hardly be relevant (cf. 2.3). The new /ō/ may have the same height as the old /ō/. The same may be true for /ē/ because the umlaut

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[18] Wilmanns, Deutsche Grammatik, par. 228, p. 309., explains: "Während unter dem Einfluss des i ein helles æ entstand, wandelte sich der reine Vokal immer mehr in einen dumpfen Laut, geht in ō, unter Umständen in manchen Mundarten sogar in ū über."

allophone of /ā/, i.e., [æ], does not merge with it at this time. The /ē/ is probably a closed front vowel since umlaut has no effect on it (the ë can experience umlaut.) This would make it very similar in quality to *$\bar{e}_2$ which according to some (cf. fn. 35, 2.3) originated through the effect of i upon ē (that is, in the IE *ēi). The i is considered in such theories (and others, cf. fn. 123, 4.5.b) as closing the vowel. The effect of i in OHG is fronting; it is possible though not certain that with fronting some raising can occur.

The degree of contrast between the two individual components in the six diphthongs appears generally lessened in comparison with the four POHG diphthongal clusters. Assimilation of the first element to the second took place in PCHG */au/ and */ai/. In /iu/ and /io/ assimilations took place; in late OHG the u of /iu/ approached the i or vice versa; with /io/ it is clear that the o in becoming fronted to e in late OHG narrowed the phonic gap. Probably the /io/ form represents maximum differentiation at this time.

6.2 The Phonemic Evolution of OHG /uo/ and /ie/[19]

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[19]There could be a basis for considering the cluster /ia/ rather than /ie/ as the phonemic symbol of the OHG diphthongization of Gmc. *$\bar{e}_2$; /ia/ occurs in all three dialects, though quite limitedly in Franc. and Bav. (cf. 3.5). Some incongruities between the Gmc. *$\bar{e}_2$ and *$\bar{o}$ reflexes in the development into diphthongs may underlie this (cf. 6.5); late OHG /ie/ < early OHG io merges with the new diphthong /ie/ which may have shifted from the diphthong or cluster /ia./ Reasons against the /ia/ seem more powerful; ⟨ie⟩ is found in some documents alongside the old monograph ⟨e⟩, though neither graph must necessarily represent diphthong and monophthong, respectively; ⟨ie⟩ occurs as early as any other symbolization of the diphthong (cf. 3.5). There is no other phonemic raising

6.2.a /ō/ Outside of Stem-syllables

Phonemically OHG /uo/ and /ie/ represent two previously non-existant phonemic clusters in the pattern. The process of their evolution involves a phonemic shift from single phonemes into vocalic units. These units become phonemically distinct with the monophthongization of Gmc. *ai and *au. The phonemic process might be formulated as follows:

$$\left.\begin{matrix} /\bar{o}/ > /uo/ \\ /\bar{e}/ > /ie/ \end{matrix}\right\} \text{ in the environment } /'/.$$

The diphthongization generally took place in stem syllables under primary stress. Apparent exceptions are few and transparent. For example, the armuati of Otfrid, 4.2.28 or the armoade of Pa are analogical formations to the noun muot, since, according to Graff, the structure of this compound is arm + ōti and not ar + mōti.[20] -ōti is actually a suffix rather than a stem syllable and should not be subject to diphthongization.

The /ō/ occurs outside the stem syllable in OHG also in the comparative and superlative suffixes -ōr, -ōst; as the stem formative in the Class 2 weak verbs; and in the inflection of the gen. and dat. pl. of ō- and n-stem nouns and the

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of the second element of a cluster throughout the period—/ia/>/ie/ would imply one; the extreme contrast between the two elements had lessened throughout the cluster pattern—/ia/ would be an exception.

[20]Graff, I, p. 422.

weak adj.[21] The noun endings -ōno, -ōm/-ōn, following the general movement of weakening in final syllables,[22] probably are reduced to /o/, /e/ or /u/ already in OHG times[23] so that they no longer reflect Gmc. *ō.

Braune, Helm and Mitzka assume apparently that /ō/ in the suffix -ōd/-ōti, the comparative and superlative suffixes, and the Class 2 weak verb formations remain in OHG.[24] This /ō/ should then have to be an allophone of some long vowel in the stem syllables, perhaps of the new OHG /ō/ (<*au). The problem has similarities with determining the phonemic status of schwa in NHG.[25] The other alternative is that it already in OHG is an allophone of short vowels, as indicated by the orthography for MHG. In some dialects the reduction of /ō/

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[21] /ē/ also appears outside the main stress as, eg., in the weak verbs Class 3 where it already in OHG often becomes "a(ā?)," according to Braune, Helm and Mitzka, par. 368, p. 291. Inflectionally /ē/ is in the nom. sg. masc. and the dat. pl. of the strong adj. /ō/ will serve in the text as example for the phonemic progression of both.

[22] See Wilmanns, Deutsche Grammatik, pars. 255 ff., pp. 337 ff.; H. Paul, "Zur Geschichte des germanischen Vokalismus," PBB, VI (1879), pp. 137 ff.

[23] Braune, Helm, and Mitzka, par. 207, n. 7, p. 188.

[24] Ibid., par. 63, p. 60, where they explain: "Schwer nennt man Mittelvokale, die lang oder durch mehrfache Konsonanz gedeckt sind. Sie waren durch den Nebenton geschützt, zeigen im Ahd. geringe Schwankungen und haben auch im Mhd. z.T. ihre volle Qualität behalten."

[25] William G. Moulton in "Syllable Nuclei and Final Consonant Clusters in German," For Roman Jakobson (The Hague: Mouton and Co., 1956), p. 381, considers schwa a phoneme as also does J. W. Marchand in Applied Linguistics: German: A Guide for Teachers, gen. ed. Simon Belasco (2nd prelim. ed.; Boston: D. C. Heath and Co., 1961), pp. 38-9. Hugo Mueller in Deutsch: Erstes Buch (Milwaukee: Bruce Publishing Co., 1958), p. 12 thinks it is an allophone of /e:/ and /e/.

in inflectional endings may have taken place simultaneously with the diphthongization of Gmc. *$\bar{o}$ in stem syllables.

6.2.b /oa/ and /ua/ as Intermediate Stages

The most controversial aspect, however, of a phonemic development is the formulation of steps or stages. In a change as the OHG diphthongization the situation is doubly complicated because of extensive dialectal variation. The statement /$\bar{o}$/ > /uo/[26] fulfills the bare essentials in formulating a phonemic change, i.e., it identifies an initial and final or earlier and later stages.

OHG /uo/ according to Hassmann is ". . .wohl nur Zwischenstufe(n)"[27] in Franc. between the change of $\bar{o}$ to $\bar{u}$. Most frequently, however, /oa/ is considered representative of an intermediate stage (cf. fn. 4 of 3.2.a, especially Steinhauser). In view of the fact that there is orthographic evidence of /$\bar{o}$/ and of /uo/ in all three major dialects, though at staggered times, it is conceivable that they represent two stages, especially if the relative terms 'earlier' and 'later' are used. The /oa/ which also turns up in all dialects could then come under consideration as an intermediate stage.

Still, a general description as that of Schatz: "Germ. $\bar{o}$ hat sich seit dem 8. Jahrhundert zum Diphthong

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[26]POHG*$\bar{o}$ and its development will serve as example for both diphthongizing vowels. This is not to assume necessarily that the evolution of *$\bar{e}_2$ is therefore completely parallel (cf. 6.5).

[27]Hassmann, p. 191.

entwickelt, der oa, ua, uo geschrieben wird; . . ."[28] prompts the idea that /oa/ may be terminal in at least one particular dialect. Coupled with this is the consideration that it might, nevertheless, be intermediate in another dialect, i.e., it may assume a relative function. The theoretical justification for the assumption of intermediate stages of a phonemic change seems to be an issue here.

The three main OHG dialects, Franc., Alem., and Bav., consititute one language; they share a common vowel structure and can, therefore, be called iso-structural.[29] All three inherited POHG *ō, the reflex of which is actually symbolized by ⟨o⟩ everywhere. The diphthongized reflexes of this /ō/ appear as ⟨oa⟩, ⟨ua⟩, ⟨uo⟩ in Bav., Alem. and Franc. respectively.[30] It may be argued that if the OHG diphthongization is taken as one process but with three independent dialects, from the point of view of the whole, an intermediate stage can be set up by assuming /oa/ for ⟨oa⟩ as 'final' in Bav., /ua/ for ⟨ua⟩ as final in Alem., but both as 'intermediate' to the general late OHG /uo/.

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[28]Schatz, Althochdeutsche Grammatik, par. 23, p. 25.

[29]Pavle Ivić in "On the Structure of Dialectal Differentiation," Word, XVIII (1962), par. 10.3, p. 49, uses this term. Generally identical phonemic patterns are established for the dialects of OHG with the consideration: ". . .ob und wie einzelne Gebiete qualitativ abweichen, lässt sich nicht erkennen" writes Schatz, Althochdeutsche Grammatik, par. 1, p. 8

[30]The assignment of /oa/, /ua/ and /uo/ is perhaps not completely borne out by the evidence (Chaps. III and IV). /ua/ is doubtlessly Alem. and /uo/ Franc., but /oa/ for example may be just as Alem. as Bav. (or indeed /uo/ may be Bav. as well as Franc.). For the purpose of abstraction it is perhaps permissible to allocate one to each dialect.

6.3 The Phonetic Evolution of OHG /uo/ and /ie/

6.3.a The Rise of Diphthongization

In the literature the actual phonetic process is not treated by many. Wiget, for example, simply refers to Baesecke's apocope explanation which Wrede had applied to NHG diphthongization. The theory holds that a long vowel becomes overlong by assimilating the energy of a following syllable which is lost; the resulting tension leads to diphthongization.[31] Wiget argues that this explanation cannot apply because syllable loss does not occur with most of the words undergoing diphthongization, but he offers no other solution.[32]

Hassmann's description of the phonetic development into diphthongs is so obscured by psycho-linguistic factors that the phonetic implications to be extracted amount to a very few rather nominal ones. The Bav. uo, ie result through "Straffung der Artikulation" (which is peculiar to the development of Gmc.) and the Bav. ou, ei result through "Lockerung der Artikulation." The latter, at any rate, proceed from "Einfache, geschlossene Längen. . .wahrscheinlich bereits zweigipflig."[33]

The requirement of "Zweigipfligkeit" is considered at length by Steinhauser. On the basis of present-day dialects, especially those which preserve older features (as those in the speech islands) Steinhauser concludes: "Sie (doppelgipfelige Akzentuierung) kann. . .höchstens gelegentliche

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[31] Baesecke, Einführung in das Althochdeutsche, pp. 18 ff.

[32] Wiget, p. 23. [33] Hassmann, p. 192

Begleiterscheinung der Diphthongierung sein."[34] He further rejects, contrary to Sievers, intonation contours as an explanation of the development of special second elements. Falling contours are sometimes assumed for opening diphthongs, rising contours for closing diphthongs, i.e., for the diphthongs with lower or higher quality, respectively.

Steinhauser concludes that diphthongization is determined by the degree of muscular tension in the articulatory organs. A lessening of tension leads to "opening" diphthongs as ea, oa; an increase leads to "closing" diphthongs as ei, ou. The former process ("Vermachlässigung des Vokalendes") is reflected also in the environment of lengthened short and long vowels. The latter process ("Differenzierungsbedürfnis. . . gegen Ende des Vokals") lies at the basis of hiatus diphthongization (e.g. -eiə, -ouə) as well.[35] The change of ea, oa to ie, uo by way of eə, oə requires, it seems according to Steinhauser's wording, similar if not the same process as for closing and hiatus diphthongization, i.e., "Straffung der Mundmuskulatur," "Artikulationsversteifung."[36]

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[34]Steinhauser, p. 85.

[35]Ibid., p. 88. Steinhauser also compares the NHG diphthongization which presumes a different type of differentiation: the old long vowels are spoken more closed in order to distinguish them from the newly lengthened vowels in open syllables. It seems Steinhauser is confusing actual phonetic details with psycho-linguistic reasons here again.

[36]Ibid., pp. 91, 94. This also, according to Steinhauser, p. 94, has a psychological catalyst; it happens at "Eine Zeit, in der sich im Sprachbewusstsein ein derartiger Bruch mit der Vergangenheit vollzieht, in der das Streben hochkommt, die bisher als ungenau und fehlerhaft angesehenen Lautungen zu hoch- und schriftsprachlicher Geltung zu heben. . ."

6.3.b Quality, Intonation and Diphthongization

Some general phonetic theories dealing with the generation of diphthongs try to deduce the nature of the original monophthong by means of the resulting diphthong.[37] The clusters /uo/, /ie/ can be classified as opening rather than closing, i.e., the final element is lower than the first. Some scholars, e.g. A. Meillet, hypothesize that an opening diphthong must proceed from an open vowel and a closing diphthong from a close vowel.[38] A. Schmitt gives examples from other dialects in which the two types proceed simultaneously from the same vowel.[39]

Schmitt is concerned with several additional general tendencies supposedly governing potential diphthongization, three of which he refutes; 1) that the diphthongizing vowel must be long, cannot be universal because there is a Sicilian dialect which alternates /ę ~ ié ~ íe/;[40] 2) the same example shows that both rising and falling diphthongs can originate from a vowel of the same quality and quantity (cf. fnn. 53, 54 of 5.5); 3) that falling or rising intonation determines opening or closing diphthongs, as Sievers maintains (fn. 47

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[37] Cf. P. M. Menzerath, Der Diphthong ("Phonetische Studien" 2; Bonn, Berlin: Ferd. Dümmler Verlag, 1941), for a clear presentation of the general and basic questions concerning the nature of the diphthong.

[38] A. Meillet in "De la différenciation des phonèmes," Mémoires de la Société de Linguistique, XII (1901), p. 33, says: "Le contraste des deux développements est à noter: la partie caracteristique de la voyelle est mise en évidence à la fin, et par suite i, u terminent la nouvelle diphtongue, s'il s'agit de voyelles fermées, et la commencent, s'il s'agit de voyelles ouvertes." Cf. also fn. 36 of 2.3.

[39] Schmitt, pp. 94 and 114. [40] Ibid., p. 68.

of 4.3.c), which could be refuted by comparing other intonation patterns.[41] The developmental aspect (repeatedly mentioned in regard to the OHG diphthongization, cf. 6.3.a) of the "circumflex nature" of the old monophthong Schmidt grants as a possibility. He discusses another common interpretation that falling intonation leads to closing diphthongs but a "circumflex" (rising-falling) intonation to opening diphthongs (cf., however, Sievers above); he admits it as a theory which may prove applicable, at least partially.[42]

It is certain that the monophthongs concerned in the OHG diphthongization are long vowels; it is quite probable that their qualities are open. There is every reason to assume an open quality for the POHG and the OHG /ē/ and /ō/. However, whether compared to Proto-Gmc., this quality is a phonemically relevant feature in the POHG and OHG systems seems in doubt.

POHG */ē/ and */ō/ are in a system where they contrast minimally with the clusters */ai, */eo/, */iu/ and */au/. This is at least the usually accepted assumption (cf. fn. 17 of 6.1.a). At the same time these clusters act as groups consisting of two independent phonemes according to their subsequent changes. There is no evidence that they could be disyllabic. On the other hand, one hesitates to call them diphthongs

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[41] Ibid., pp. 96-7.

[42] Ibid., p. 92.

according to definition.[43] It is not clear how the diphthongal transition ("kontinuierlich ineinander übergehen") is effected in such clusters. Possibly it may be similar to a triphthongal construction in that there seems to be an additional factor. Such a cluster could possibly be assigned three "bits," the two clearly segmental and a third probably prosodic which makes it act as a cluster rather than as a diphthong.

6.3.c The Components of the OHG Diphthongs

The new OHG /uo/ and /ie/ exist beside three other diphthong groups /io/, /ei/ and /ou/. Hegedüs stresses that attention should be focused upon the three factors of stress, quality and duration of the components in order to understand the nature of a diphthong.[44] It was noticed (cf. end of 6.1.b) that the OHG diphthongal groups generally show a greater degree of compatibility between their components than do those of the POHG clusters.

The OHG groups represent both the closing and opening diphthongal types. According to P. Fouché, ". . .les tendences générales de la langue peuvent imposer tel ou tel timbre

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[43] O. v. Essen in Allgemeine und angewandte Phonetik, (Berlin: Akademie Verlag, 1953), p. 63., offers a conventional but significant definition: "Unter einem Diphthong versteht man einen im phonetischen Sinne vokalischen Zwielaut, der die sprachliche Funktion eines einfachen Vokals hat, d.h. dessen einzelne, in gewöhnlicher Rede auffassbaren Bestandteile artikulatorisch und klanglich kontinuierlich ineinander übergehen, wobei einer der beiden Teile eindrucksmässig das Übergewicht haben kann."

[44] Hegedüs, p. 33.

à la portion terminale de la voyelle."[45] Schmitt points out that this could imply that in one and the same language either opening or closing diphthongs should prevail.[46] The tendency may be very real but evidently is counterbalanced by another factor (tendency) in a language where both types coexist. It is the case in some Alem. and Bav. present-day dialects. Keller lists six diphthongs, two closing and four opening, for Upper Austrian. The four opening all have a second element in [ɒ], a low central unstressed vowel; the first component is always stressed.[47]

Whether OHG /ie/, /ic/ and /uc/ are parallel in having a second unstressed, centralized element is probably an arbitrary matter of description. It rests, in a sense, on the acceptance of an /io/ phoneme, whose elements consist of a front and a back vowel. If, on the other hand, the second element of /ic/ is already considered allophonically fronted, then in all likelihood the second elements of /ie/ and /uo/ must be taken as being centralized or reduced. The first possibility probably prevails in early OHG, since neither the reduction in final syllables nor the i-umlaut are phonemic at this time. It seems then that depending on the interpretation of OHG /ei/ and /ou/, the digraphs can be considered as either representing diphthongs or diphthongal clusters. On all six OHG diphthong groups the main stress is on the first component,

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[45]P. Fouché, Etudes de phonétique générale ("Publications de la Faculté des lettres de l'Université de Strassbourg," 39; Paris: Société d'Edition: Les Belles Lettres, 1927), p. 22.

[46]Schmitt, p. 90. [47]Keller, German Dialects, pp. 207 ff.

which also is longer than the second. The constituents of the new /ie/ and /uo/ contrast also by a diffuse (i,u) versus compact (e,o) feature.

6.4 The Alleged Spread by Borrowing

6.4.a The Diphthongization in the OHG Dialects

Frings understands the diphthongization as having begun in a given location and then diffusing itself into certain directions; he explains: "Wir beobachten eine einheitliche Welle von Tours bis nach Fulda. . . . Der Sieg der fränkischen uo, ie in Süddeutschland vollzieht sich im Verlauf einer zweiten und dritten Bewegung vom Nordwesten und Norden gegen den Südwesten und Süden."[48]

Opinions vary as to whether Middle Franconian ever took part in this diphthongization. According to Frings, the modern conditions do not point to a former diphthongization in that dialect, which is susceptible to so-called vocalic sharpening ("rheinische Schärfung")—a condition which seemingly resists such a sound change as the diphthongization.[49] On the other

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[48] Frings, "Germanisch Ō und Ē," p. 111.

[49] Th. Frings, Die rheinische Accentuierung ("Deutsche Dialektgeographie," XIV; Marburg: N. G. Elwert'sche Verlagsbuchhandlung, 1916), par. 58, p. 84., writes: "Die Tatsache, dass die Schärfung dort, wo sie reines Accentuierungselement ist, nur an Vertretern der alten ā, ē, ō bzw. den in diese Gruppe später eingelauteten Vocalen haftet, lässt darauf schliessen, dass ihre Aktivität in eine Zeit fällt, wo die heutigen von der Schärfung ursprünglichen Längen und Diphthonge noch auf den Stufen ā, ē, ō standen. . .dass wgm. ē. . .sowie wgm. ō infolge der Schärfung der ahd. Diphthongierung entzogen wurden. . ."

hand, scarce though the documents may be for the Mid. Franc. area, there are OHG digraph citations. Those who do no hold them to be diphthongs explain them away with some reason as contamination or as diphthongal spellings with monophthongal sound value. Franck maintains that the diphthongs ie, uo did exist in Old Mid. Franc., of which present-day ē and ō are the indirect reflexes and the direct reflexes of an intermediate monophthongization to ī and ū.[50] Steinhauser reckons with the possibility of a vaguely defined sound substitution; he asks: "Sollten denn die mfrk. ē, ō, denen sowohl im Rhfrk. als im Ndfrk. ī, ū (< ie, uo) entspricht, nicht überhaupt erst später von Osten ins Rheinland eingewandert sein und die auch für dieses Gebiet vorauszusetzenden ie, uo verdrängt haben, . . ."[51] For the purposes of this sound change, if the graphic evidence is taken at face value, then diphthongization clearly took place in the Mid. Franc. dialect. In the case of Low Franc. diphthongization is commonly accepted, and our data bear this out.

The theory of sound change by borrowing, i.e., the extension of the new diphthongs from Franconia into Alemannia and then Bavaria, does not seem convincing when the dialectal divergence in development is taken into account. It was made clear (6.2.b above) that rather than postulating an intermediate stage or stages for this diphthongization it appears

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[50]Franck, Altfränkische Grammatik, par. 44, pp. 53-4, explains: "Die Diphthongierung gilt durchaus auch für dort, wo später wieder Monophthong ō oder u erscheint, der also aus jüngerer Monophthongierung von uo über ū hervorgegangen ist."

[51]Steinhauser, p. 84.

likely that the variations (/uo/, /ua/, /oa/) in diphthongization are dialect peculiarities which substantiate the independent development of the diphthongization in each dialect. Nevertheless, if it is supposed that the OHG diphthongization spread, then the OHG monophthongization and changes involving Gmc. *eu must have spread accordingly. Especially reflexes of the latter show striking deviations in Up. Germ. from Frnc. Borrowing here, or spread does not even seem reasonable as a secondary influence.[52] Each dialect had within its structure the potentiality to diphthongization and developed it more or less in a regular manner.

That Alem., for example, diphthongized with a second component in /a/ is not surprising because of the obvious a- or lowering-tendency in that dialect. Similarily, it is not out of order that frequent signs of diphthongization appear later in Bav. If there is any sort of connection between the phonemic change of umlaut and diphthongization in Gmc., it can be borne out, for one, by the situation in Lex. (cf. below). Schürr had, to be sure, related the earliest Romance diphthongization with umlaut,[53] but if umlaut is considered ancillary to diphthongization in OHG, it is in no way on a segmental level.

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[52]This is not to exclude the possibility of any influence. Very important, e.g., is the exchange through scribal traditions transmitted from one center (monastery or chancellery) to another.

[53]Schürr, "Umlaut und Diphthongierung in der Romania," p. 305, claims: "Umlaut und bedingte Diphthongierung dürfen als gemeinsamer Zug aller romanischen Sprachen auf ihrer ältesten Entwicklungsstufe angesehen werden, . . ."

Van Ginneken lists as "'sworn comrades'. . .the tendency towards diphthongization of the main syllable and that towards apocope of the accompanying syllable."[54] A. Schmitt demonstrates this very tendency with the NHG diphthongization, writing: ". . .die Diphthongierung ist eine Wirkung der gleichen Kraft, die zu derselben Zeit auf das Verschwinden der Folgesilbe hinarbeitet."[55] In Bav. phonemic umlaut, i.e., that caused by a weakened or lost i, seems—like the diphthongization—of later attestation than in the other dialects. There is no diphthongization of Gmc. *ē₂ and *ō in Langobardic, a language in which the probability of umlaut is extremely slight and in which vowels in final syllables are preserved to a great extent.[56] The Bav. "conservatism" to diphthongization is probably as strong as its assumed "conservatism" to umlaut, which is not one of time but of dialectal ordering and preference.[57]

6.4.b The Role of the Stress Accent

Two tendencies were noticed as prevailing in the formation of the OHG sound pattern, one of raising, the other of fronting. But a tendency does not constitute a cause for a

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[54]Van Ginneken, "Roman Jakobson: Pioneer of Diachronic Phonology," p. 576.

[55]Schmitt, p. 107.

[56]Bruckner, par. 23, p. 89; p. 11, n. 1; pp. 61-2; and par. 34, p. 113.

[57]Penzl, "Umlaut and Secondary Umlaut in OHG," pp. 237-8.

phonemic change.[58] The fact that these changes all take place in stressed vowels, and—as also in the case of umlaut and the conditioned *eu—clearly in dependence upon unstressed vowels which are weakening, is indicative of prosodic effect. Van Ginneken says: "By nature. . .the intensity accent strengthens strong vowels and weakens weak vowels."[59] The intensity accent is notoriously active in Gmc., and it is exactly this which Schmitt assumes as the ultimate cause for the diphthongization: "Der letzte Grund ist. . .eine Verstärkung des Druckes, in Zusammenhang mit einer Verstärkung des zentralisierenden Charakters des Akzentes."[60]

The stress accent as cause is approached from two directions. On the one side the physiological effect of the accent is described very generally as, e.g., slackening of muscular tension (cf. Steinhauser's "Nachlassung der Muskelspannung") or more closely as with the detail of E. Richter's explanation: "Der obere Kehlraum wie der untere Rachenraum geben dem Druck nach und der Weg wird weiter, etc."[61]

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[58]Schmitt, p. 85, writes: "Wenn ich somit die Wirkung von"Tendenzen" auch nicht bestreite, so meine ich doch, dass man mit dieser Erklärung sehr vorsichtig sein muss, und dass man in jedem einzelnen Fall sorgfältig untersuchen sollte, ob sie wirklich eine "Erklärung" ist, oder vielleicht nur eine Konstatierung, ein anderer Name für den Tatbestand."

[59]Van Ginneken, "Roman Jakobson: Pioneer of Diachronic Phonology," p. 576.

[60]Schmitt, p. 131. According to Schmitt, p. 123, this is also the power behind the OF diphthongization. What differentiates the two types of diphthongization, he thinks, is neither of the factors of length or degree of openness of vowels, but that of tension of vowels.

[61]Richter, pp. 140-1.

Usually, however, psychological reasons precipitating the stress accent are employed.

Richter appears rather conservative when she writes: "Es scheint mir, dass jede sprachliche Veränderung aus der Emphase, aus dem Hervorhebungsbedürfnis geboren wird . . ."[62] Dal applies this line of thought to the OHG diphthongization but with increased psycho-linguistic overtones: "Diese Diphthonge entstanden, indem man beim Einsetzen der Artikulation die geschlossene übertrieb, um einen hinreichend deutlichen Unterschied von den neuen Vokalen zu erreichen."[63] The extreme expression of psychological effect is probably exemplified in the explication of H. Galton, who hypothesizes stages for the diphthongization. To him /ea/ and /oa/ represent: ". . .the creation of a contrast between a dynamic part on the one hand and an open part on the other; the two qualities combined in one and the same phoneme appeared incompatible to the mind of the speakers."[64] It seems unrealistic to isolate any <u>one</u> factor as <u>the</u> cause for a phonemic change as the OHG diphthongization.[65]

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[62]Richter, Review of "Akzent und Diphthongierung," by A. Schmitt, ArchfSnS, CLXIII (1933), p. 291.

[63]Dal, p. 116.

[64]H. Galton, "The Old High German Diphthongization and After," JEGP, LVI (1956), p. 11; cf. yet Steinhauser, pp. 87-8, who says: "Letzten Endes sind alle Anderungen in der Spannung der Mundmuskulatur Auswirkung des menschlichen Ausdruckswillens."

[65]There are yet many other possible factors as economy of effort, actual physiological environment, etc., some of which are considered unscientific.

6.5 The Parallel Changes of Pre-OHG *$\underline{\bar{e}}_2$ and *$\underline{\bar{o}}$

Throughout the phonemic description of the OHG diphthongization the evolution of *$\underline{\bar{e}}_2$ was treated alongside that of *$\underline{\bar{o}}$. The conventional descriptions assume them to be parallel. This is strengthened by a trend in contemporary description to demand bisymmetry in a pattern. Special care was taken in this study to be aware of any divergence.

A priori there are various factors typical of each of the phonemes which could easily account for divergent developments. Their PGmc. origins differ (cf. Ch. II). The graphic evidence is much more extensive in the case of the *$\underline{\bar{o}}$. The number of morphs in which the new diphthong can occur is approximately half as many for *$\underline{\bar{e}}_2$ as for *$\underline{\bar{o}}$. The varying word types in the two groups set further limitations, for example, the number of originally Gmc. *$\underline{\bar{e}}_2$ nouns (the noun category linguistically is a relatively frequent one) is very small, about half a dozen, in comparison with the Gmc. *$\underline{\bar{o}}$ nouns, which are at least four times as many (cf. Appendix C). Furthermore, a large part of the *$\underline{\bar{e}}_2$ vocabulary consists of loanwords. The sources have to be taken into consideration. *$\underline{\bar{e}}_2$ data from the deeds are practically lacking: scribal habits found in the deeds differ from those of the literary monuments.

Some common graphs representing the respective vowels can be compared:

⟨o	a	u	oo	oa	ua	uo	ou		ue⟩
⟨e		i	ee	ea	ia	ie	ei	eo	io⟩

⟨a⟩ and ⟨eo⟩ lack parallel graphs. ⟨eo⟩ for *$\underline{\bar{e}}_2$ is

understandable from its ensuing merger with /ie/ < *eo. ⟨io⟩ opposite ⟨ue⟩ shows how misleading such a comparison as this can be. It also conveys the fact that the phonic ranges of each of the original phonemes and their dialectal development certainly do not correspond completely. The phonemic interpretation given ⟨ou⟩ did not coincide with that given ⟨ei⟩; there may be a "later" ⟨ei⟩ which could correlate to this ⟨ou⟩.

On the other hand, the three dialect representations: ⟨oa⟩, ⟨ua⟩, ⟨uo⟩ have parallel graphs in ⟨ea⟩, ⟨ia⟩, ⟨ie⟩, if a time factor, among others, is granted, and they may reflect the phonemic clusters represented by the graphs. This diphthongization may represent the second alternative in Jakobson's belief that: "Every new phoneme must find its place in the phonological system either by insinuating itself between two already existing phonemes or by finding or creating for itself a parallel partner, an opposite number."[66] Prosodic catalysts influenced the entire system. If one finds parallel phonemes at the end, then probably their original sources were at one time significantly parallel also, and any divergences in their direct development are non-significant.

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[66]Paraphrased by van Ginneken, "Roman Jakobson: Pioneer of Diachronic Phonology," p. 579.

CHAPTER VII

CONCLUSIONS AND SUMMARY

The several aspects which, it seems, should be dealt with for a complete description of a phonemic change and which were proposed in 1.2, have received enough attention to allow the drawing of some specific conclusions:

1) The OHG diphthongization is a phonemic shift conditioned by occurrence in stem syllable only. It affects morphs containing Gmc. *$\bar{o}$ and the so-called Gmc. *$\bar{e}_2$. The POHG *$\bar{o}$ and *$\bar{e}$ (Gmc. *$\bar{e}_2$), although of different and multiple origin, especially in the case of the front vowel, share features sufficiently relevant in order to partake in the same sound change. In the second chapter, research concerning the PGmc. origins of OHG $\bar{e}$ and $\bar{o}$ was briefly discussed. PGmc. *$\bar{e}_2$, the source of $\bar{e}$, was found to be of controversial origin: beside the derivation from IE *$\bar{e}i$, sources proposed were found to be IE ei (van Coetsem) or contraction in redupl. verb forms (Lüdtke;) OHG $\bar{o}$ comes from PGmc. *$\bar{o}$ (< IE *$\bar{o}$ and *$\bar{a}$.) The quality of POHG *$\bar{e}$ and *$\bar{o}$ was reconstructed as open rather than close. It is thought that the feature of open/close quality is probably non-significant in the POHG and OHG long vowel patterns, which have only one $\bar{o}$ and one $\bar{e}$ each. (In NHG a quality

distinction exists between /e:/ in nehmen and /ɛ:/ in nähmen in the standard language.) If quality is to be specified for OHG ō and ē, many factors as, e.g., the loanwords and the fact that the new OHG ō and ē "replace" the old, point to an open quality. The MHG lengthening in open syllable and shortening in closed syllable, which shows a coalescence of short and long vowels, points to a similarity in quality between short and long vowels.

2) The graphemic data for the reflexes of PGmc. *$\bar{e}_2$ and PGmc. *ō were presented in the third chapter, and spellings as ⟨uo⟩ ⟨uɑ⟩ ⟨oɑ⟩ ⟨u⟩ ⟨a⟩ for Gmc. *ō were discussed as well as ⟨ie⟩ ⟨iɑ⟩ ⟨eɑ⟩ ⟨eo⟩ ⟨ei⟩ ⟨i⟩ and other spellings for Gmc. *$\bar{e}_2$. The spellings ⟨ue⟩ was taken up in connection with the "spurious diphthongs" (3.4) where the reflex of PGmc. *ó appears before inflectional endings. But a dialectal phonemic-phonetic interpretation of the spellings was reserved for the fourth chapter, where graphic intersections between ⟨oɑ⟩ (Gmc. *ō) and ⟨ɑc⟩ (Gmc. *au) in Bav. (4.2.a) and cases of ⟨eo⟩ ⟨io⟩ for PGmc. *$\bar{e}_2$ (4.5.d) received special attention.

The allophonic variation leading to the diphthongization must have taken place before 700. The first historical evidence for diphthongal values for *ō is found in manuscripts dating from the first half of the eighth century, and that for *$\bar{e}_2$ in manuscripts from the second half of the same century. This does not necessarily indicate that the evolution of *$\bar{e}_2$ occurs slightly later. The difference in available data (i.e., including the morph classes themselves) for the two phonemes may account for the time variation. If a time

difference does exist, it is not pertinent to the phonemic change. The time difference among the first occurrences of digraphs in the data of the three main dialects (for *$\bar{o}$: Franc. 711, Alem. 753, Bav. 747; for *$\bar{e}_2$: Franc. 772, Alem. 781, Bav. 809) is also not pertinent. The frequency of early spelling reflexes of the diphthongization (as in Franc.) has nothing to do with the diphthongization as allophonic and phonemic change which must be contemporaneous to all three dialects. An intermediate phonemic stage of /oa/ in Bav. and /ua/ in Alem. corresponding to Franc. /uo/ was recognized (also 6.2.b). Nevertheless, the type of development peculiar to a dialect also does not alter the fact that it is essentially one and the same sound change having only two stages (initial and final or earlier and later) which takes place in the three major dialects.

3) In the fifth chapter theories by Wiget, Hassmann, Steinhauser and Frings concerning Rom. origin of the OHG diphthongization were taken up. The pertinent loanword material containing the diphthongizing phonemes—which reveals active interchange between OF and OHG dialects, particularly Franc. (5.4)—was quoted. However, characterizations of A. Schmitt and others as to the presumable phonetic nature of the OF and OHG diphthongizations point to considerable differences.

The Frings and v. Wartburg hypothesis that the diphthongization is native to Franconia from where it drifted into Alemannia and Bavaria (6.4.a) is unfounded. There is no known

migration, large-scale trade, or interchange between North and West or South-West, between chancelleries or monasteries early in the eighth century or even prior to it. The carrier of such a spread of the diphthongization is non-existent. Furthermore, it would involve, in the dialectal evidence, a reasonable time lapse which also does not exist. Lastly, the independent development of the diphthongization in the three main dialectal areas is shown by the original slightly differing evolution (/oa/ in Bav., /ua/ in Alem); yet in respective documentation the difference between Franc. and Alem. does not appear to be significant.

If the notion of such "spread" does not explain the facts, then it is very likely that the farther reaching theory of Frings and v. Wartburg of an intervention of OF in the OHG diphthongization is not tenable either. The diphthongs occur in the dialects adjacent to the OF territory. The early concentration of diphthongization in the Franc. area may have been stimulated by the OF diphthongization.

4) In contrast to the above mentioned discussion of the alleged external cause by borrowing from OF, the internal factors favoring the origin of the OHG diphthongization were analyzed in the sixth chapter. It was necessary to view the change within the total POHG and OHG patterns of long vowels and diphthongs and in connection with various phonemic changes, especially those occurring during the OHG period. The Wilmanns and Dal theories of a "push-chain" conditioning of the

OHG diphthongization, which thus prevented a merger of OHG ē (< POHG *ē) and ē (< POHG *ai), ō (< POHG *ō) and ō (< POHG *au), were favorably considered.

The diphthongization reaches significance with the establishment of the new OHG ō (<*au) and ē (<*ai), and certainly with the phonemic reduction of vowels in unstressed syllables. According to the handbooks, the new /ē/ is indicated graphically in the seventh century and the new /ō/ in the eighth century. That the evidence for the new /ē/ is earlier than for the new /ō/, but monographs still reflecting the old /ē/ disappear later than those for the old /ō/, does not seem to agree with the assumption of completely internal determination of the phonemic change. Pattern pressure is only one of a multitude of factors which differ in type and degree. Another important phonemic-phonetic factor causing the OHG diphthongization appears to have been the influence of the stress accent which accounts in part for the various changes in all syllables. In some cases the effect of this accent upon and between unstressed and stressed syllables is even more overtly demonstrated as, for example, in the reduction of phonemic vowel contrasts in unstressed syllables and the phonemization of the OHG umlaut. The new /uo/ and /ie/ form a new diphthongal type in the system; they are "falling," "opening" vowel clusters with relatively homogeneous components.

APPENDIX A

OHG Monuments Treated in Secondary Sources

In column 1 are the OHG monuments (or secondary sources) from which the data are taken. They are arranged according to dialect: Franconian, Alemannic and Bavarian, and to genre: (D) Deeds (or official documents), (G) Glosses and (L) Literary documents within each dialect. Secondary (or tertiary) sources in which these OHG monuments are treated and the pages from which their data are taken form column 3 (cf. Bibliography for complete reference) and 4. Column 2 refers to Appendix B and identifies the listings there.

Franconian Deeds:	2	3	4
Weiss(enburg) Deeds	1D,3D,5D, 8D,12D	Socin, A.:	222-24
Strassburg Deeds	7D	"Die althoch- deutsche Sprache	260
Fulda Deeds	9D	im Elsass vor Otfrid von Weis- senburg"	262
Fulda Deeds	4D,6D,7D, 10D,1eD	Kossinna,G.: "Uber die ältesten hochfränkischen Sprachdenkmäler"	25-28
Lacomblet	11D,13D, 15D,14D, 2eD	Lacomblet, T.J.: Urkundenbuch für die Geschichte des Niederrheins	
Beyer (Urkundenbuch zur Gesch. der mittelrhein. Territorien)	16D,3ed	Franck, J.: Altfränkische	pars. 42 ff. p. 51

	2	3	4
Sauer, G. (Codex diplomaticus Rheno-Mosellanus)	17D	Franck, J.: Altfränkische Grammatik: Laut- und Flexionslehre	pars. 42 ff. p. 51
Sauer	4eD		
Reimer (Hessisches Urkundenbuch, 2. Abteilung 1)	18D		
Boos (Urkundenbuch der Stadt Worms)	19D		
Kaufungen (Urkundenbuch des Klosters Kaufungen in Hessen)	20D		
Ennen-Eckertz (Quellen zur Geschichte der Stadt Köln)	20D		
Philippi (Siegener Urkundenbuch)	20D		
Boehmer (Codex diplomaticus Moenofrancfurtensis)	20D		

Franconian Glosses

C^1 (Glossen zu den canoves aus einem Würzburger cod.)	1G	Pietsch, P: "Der Oberfränkische Lautstand im IX. Jahrhundert"	353-56
St. Gall Cod. 292	5G,2eG,8G		
Gl. Mainz			
Frankfurt Gl; Gl. for Jesias and Daniel; c^2 (Glossen zu den canonen ebenfalls aus einem Würzburger codex); Lat. R; Gl. for Ezechiel; Gl. Xanti, Paris MS 685: Oxford-Würzburg Gl; Luxemburg Gl.	3G	and Franck (above)	
Aldhelm Gl: Gl. for Priscian and Fulgentius; Gl. for libri regnum; Mainz cl31: Leiden lat. 4 51.	4G	Franck (above) and	
Paris V(er)g(il) Gl.	6G,6eG	Schatz, J.: Althochdeutsche Grammatik	pars. 21 ff. p. 22 f.
Gl. for Prosper and Sedulius; Fulda-Kassel Gl; Cologne-Prudentius Gl; Kempten Gl: Aldhelm Gl; MS Bonn; Paris Gl. for Sallust; Cologne-Priscian Gl; Rome Gl. for Walahfrids Visiones	7G		
Trier Gl: Vatican-Frankental Gl; Gl. für Arator and Prosperus	9G		
Cod. Francofurt 64; Cod. Parisinus 2865: Cod. Brux(ellensis); Cod. Carolsruh Aug. IC; Gl. Xanti; Cod. Carolsruh CLXXVIII; Gl. for Jesias and Daniel; Gl. c^2 (Glossen zu den canonen...)	1eG	Franck (above) and Schatz (above) and Pietsch (above)	

	2	3	4
Würzburg Gl. zu Regum; Würzburg Gl. for Ezechiel; Würzburg II, 15740; Cod. Vindob 969.	2eG	Franck (above) and Schatz (above)	
Cod. Vat(ican) Reg(um) 256; Vat(ican) Gl. for Arator; Pal 1716	4eG		
Trier Cod; Köln Gl. for Priscian; Cod. Mogunt.	5eG		
Frank(furt) Gl; Cod. monas(terii) heremit(arum) 303	7eG		

Franconian Literary Monuments

Weiss(enburg) Cat(echism)	1L,1eL	Pietsch (above)
Ludwigslied	5L,5eL	
Lex Salica	6L,6eL	
Franc(onian) Baptism A, B	7L	
Lorsch Conf(ession)	8L,7L	
Würzburg Conf(ession)	9L,8L	
Palatine Conf(ession)	10L,9eL	
Reichenau Conf(ession)	11L,10eL	
Strassburg Oaths	12L	
Fulda Conf(ession) A	11eL	
Fulda Conf(ession) C	14eL	
Mainz Conf(ession)	17L,13eL	
Isidor	2L,2eL	Hench, G.: pp.65-6 "Der althochdeutsche Isidor"
Tatian	3L,3eL	Pietsch (above) and Sievers, E.: pp.L-LI Tatian and Moulton, W.G.: pp.313-18 "Scribe of the OHG Tatian Translation"
Otfrid	4L,4eL	Pietsch (above) and Kelle, J.: pp.460-67 Die Formen- und Lautlehre der Sprache Otfrids
Trier Capitular	15L	Schatz (above)
Williram	16L	and Franck (above)

Alemannic Deeds	2	3	4
St. Gall Deeds	1D,5D,8D 12D,1eD	Henning, R.: "Uber die Sanct-gallischen Sprachdenkmäler bis zum Tode Karls des Grossen."	pp.114-16
Piper: Libri Confraternitatum	2eD	Fasbender, J.: Die Schlettstadter Vergilglossen und ihre Verwandten	p.63
Murbach-Münster Deeds	2D,10D	Socin (above)	pp.262,67
Neugart Cod. diplomat(ica) Alemanniae	3D,9D,13D 21D,23D, 3eD	Weinhold, K.: Alemannische Grammatik	pars.37 ff p.38
Schöpflin (Alsatia diplomatica)	4eD		
Goldasti (Rerum alemann. scriptores ex biblioth.)	4D,17D		
Der Geschichtfreund	28D		
St. Gallv(er)b(rüderungsbuch)	6D	Schatz, J.: "Die Sprache der Namen des Ältesten Salzburger Verbrüderungsbuches"	p.13
Reich(enau)v(er)b(rüderungsbuch)	14D,15D, 16D,6eD		
Reichenau Monks MS P	7D	Baesecke, G.: "Das Althochdeutsche von Reichenau nach den Namen seiner Mönchlisten"	pp.105-6, p.131
MS V	18D		
MS E	19D		
MS D	20D		
MSS F, R	22D		
MS Na	24D		
MSS O, Ng	25D		
MS Nb	26D		
MS A	27D		
Wirtemberg Deeds	11D	Weinhold (above) and Schatz: Althochdeutsche Grammatik (above)	
St. Blasier Necrology	5eD		
Alemannic Glosses			
St. Gall Vocabularius	1G,1eG	Henning (above)	
Anhang (to the Vocab.) St. Gall)	2G		

	2	3	4
Ka Kb Ra	3G,2eG 4G,3eG 5G,4eG	Kögel, R.: "Ueber das Keronische Glossar"	pp.11-14
Rb	6G,5eG	Ottmann, R.: Grammatische Darstellung der Sprache	pp.13-15
Rd Ja Jb Jc	7G,6eG 8G,7eG 9G,8eG 10G,9eG	Schindling, B.: Die Murbacher Glossen	pp.15-17
Cod. 10900; Rf, St. Gall 295; Cod. 286; St. Gall 9, Prag-Lobkowitz	11G	Weinhold (above) and	
St. Gall 299	12G		
Cod. Turicensis Rhenov 35	13G	Schatz: Althochdeutsche Grammatik (above)	
Cod. Car. St. Petri; Prag; St. Gall 184; St. Gall 242: Florentner Gl.	14G		
Engelb(erger) Gl; Augsburg Gl; Cod. Monas(terii heremit-(arum) 32	16G		
Cod Cheltenham: Cod. St. Gall 9; Rf; St. Gall 299; St. Gall 136	10eG		
Cod. St. Pauli XXV d/62; Cod. Fulda Aa	11eG		
Cod. Carolsruh St. Petri; Cod. St. Gall 184; Clm.14689: St. Gall 242	12eG		
St. Blasier Gl; Cod. Stuttgart theol. et phis. fol. 218; Cod. Vindob 2400; Cod. Mellicencis; Engelb(erger) Gl.	13eG		
Frag. St. Paul; Gl. Paul; Augsburg Gl; Cod. Turicensis C164: Aug(sburger St. Blasier Necrology)	15eG		
Schlett(stadter)V(er)g(il) gl(ossen)	15G,14eG	Fasbender (above)	pp. 63-4

Alemannic Literary Monuments

St. Gall Pater noster and Credo 1L		Henning (above)	

	2	3	4
Benedictine Rule	2L,1eL	Seiler, F.: "Die altdeutsche Uebersetzung der Benediktinerregel"	p.425
Murbach Hymns	3L,2eL	Sievers, E.: Die Murbacher Hymnen	p.273
Wackernagel: Altdeutsche Predigten und Gebete; Wackernagel: Altdeutsche Lesebuch; Vornother Psalms: Hymnorum veteris eccl XXV; Oswald; Fragments of Old Reinhart	4L	Weinhold (above)	
Notker Psalms	5L,3eL	Wardale, E.: "Darstellung des Lautstandes in den Psalmen Notkers nach der S. Galler HS."	pp.10-12
Bavarian Deeds			
Freis(ing) Deeds	1D,2D,5D, 6D,7D,9D, 1eD,2eD, 3eD,4eD, 5eD,6eD	Wagner, A.: Über die deutschen Namen der Ältesten Freisinger Urkunden	pp. 54-9
Monumenta Boica	3D	Weinhold, K: Bairische Grammatik	pars.46 ff.
Archiv für Kunde österreich. Geschichtsquellen; Der diplomat. Anhang in Nachrichten vom Zustande der Gegenden und Stadt Juvavia	8D		pp. 57 ff. pars. 53 ff. pp. 63 ff.
Der diplomat. Anhang . . . Juvavia (above) Notizblatt	14D		
Der diplomat. Anhang . . . Juvavia (above)	8eD		
Salzburger v(er)b(rüderungs-buch)	4D,12D, 13D,7eD	Schatz, J.: "Die Sprache der Namen des Ältesten Salzburger Verbrüderungsbuches"	pp.4 ff.
Pass(au) Deeds	10D	Schatz (above): Althochdeutsche Grammatik	
Regensb(urg) Deeds	11D		

	2	3	4
Salzb(urg) Deeds	9eD	Schatz, J.: Altbairische Grammatik: Laut- und Flexionslehre	pars. 7,8 ff. pp. 15 ff.
Notizblatt; Detbold M; Monumenta Boica; Passau; Denk LV,8A; Denk LV76,16	10eD	Schatz (above): Althochdeutsche Grammatik	
Clm. 18550,1; Clm. 6325; Clm. 19417; Clm. 6277	4eG	and Weinhold (above):	
Cod. St. Florian III, 222B; Cod Carolsruh Aug CXI; Clm. 14846; Clm. 9534	6eG	Bairische Grammatik and Schatz (above): Altbairische Grammatik	
Bavarian Glosses			
R	1G,1eG	Wüllner, L.: Das Hrabanische Glossar und die ältesten bairischen Sprachdenkmäler	p.9
Cassler Gl.	3G,3eG		
Melk Gl.	4G		p.84
Freis(ing) Gl.	5G		
Emmeram(er) Gl.	12G,8eG		
Pa	2G,2eG	Kögel (above)	
Freis(ing) Isidor Gl.	6G	Weinhold (above): Bairische Grammatik	
Freis(ing) Otfrid Gl.	7G		
Mondseer Gl.	8G,5eG	Weinhold (above): Bairische Grammatik and Schatz (above): Althochdeutsche Grammatik, Altbairische Grammatik	
Clm. 19410; Clm. 6325; Clm. 6277; Clm. 18550; Cura pastoralis Gl; St. Florian Gl. 21525; SG Gl. 2732 Gl.13002; Gl. 14689 Clm. 18547; Clm. 14478; Cod. Paris Nouv. a; Clm. 14689; Vor(auer) HS; Erster, zweiter Physiologus ; Karajan: Deutsche Sprachdenkmale; Deutsche Interlinearversion der Psalmen ; Cod. Salisburgensis; Clm. 19450	9G 11 G 18 G 12eG		
Clm. 19440	13G,9eG		

	2	3	4
Monseer Gl; Cod. Vinob. 2723	10G,7eG	Jellinek, M.: Die Monseer Glossen	p.413
Clm. 18140	14G,10eG	Holzgraefe, W: Die Sprache des Althochdeutschen Glossars Clm. 18140	pp.15-17
Tegern(see) V(er)g(il)-gl(ossen)	15G,11eG	Velthuis, H.: De Tegernseeër Glossen op Vergilius	p.5-6
Clm. 14395	16G	Berg, J: Die althochdeutschen Prudentiusglossen der Codd. Paris (Nouv. acquis 241 u. Monac. 14395 u. 475	pp.5-6
Bavarian Literary Monuments			
Wess(obrunn) Prayer	1L	Schatz (above): Althochdeutsche Grammatik, and Bairische Grammatik and Weinhold (above): Bairische Grammatik	
First Bav. Conf(ession)	2L		
Bav. Prayer	4eL		
Otloh	13L		
Merigarto	15L		
Monsee Frag(ments)	3L,1eL	Hench, G.: The Monsee Fragments	pp.100-01
Exhort(atio) A or B?	2eL	Wüllner (above):	pp.84-5
Exhort(atio) A	4L		
Exhort(atio) B	5L		
Carmen ad deum	6L		
Freis(ing) Pater noster A	7L,3eL		
Em(meram) Prayer A	8L		
Musp(illi)	9L,5eL		
Freis(ing) Pater noster B	10L,6eL		
Em(meram) Pater noster	11L,7el		
Em(meram) Prayer B	12L		
Viennese Genesis	14L,8eL	Dollmayr, V.: Die Sprache der Wiener Genesis	pp.4-5

APPENDIX B

Graphemic Tabulation

The OHG sources are listed according to date within each genre, and genre within each dialect; refer to Appendix A. The tabulation aims toward accuracy but factors such as arbitrary assignment of the graphs (cf. e.g. fn. 44, 4.2.c), estimated or incomplete counts by editors, and allocations of "spurious" spellings (e.g. u + a), limit accuracy. The following designations are used: graph alone signals a single occurrence; X after a number before a graph equals 'times'; X without a number before a graph equals 'usually'; $\bar{\ }$ over a number or an X equals 'approximate' or 'unknown' number of occurrences.

Franc. o̅	⟨o⟩	⟨a⟩	⟨u⟩	⟨oo⟩	⟨oa⟩	⟨ua⟩	⟨uo⟩	
1D 695-743	97Xo	10Xa	5Xu		3Xoa	4Xua	uo	uá
2D 728-49	13Xo	a						
3D 745-65	12Xo	a	4Xu			11Xua		
4D 750-70	11Xo						uo	2Xvo
5D 766-79	18Xo		2Xu	oo		44Xua	13Xuo	uá
6D 771-9	15Xo				3Xoa		26Xuo	
7D 779-90	7Xo				oa		19Xuo	
8D 780-92	30Xo	8Xa	2Xu	oo		47Xua	11Xuo	2Xúa
9D 770-805	7Xo		2Xu		2Xoa	ua	12Xuo	
10D 790-800	7Xo						24Xuo	
11D 792-803	4Xo		u			54Xua	2Xuo	uǒ
12D 797-861	14Xo	a	u			54Xua	17Xuo	3Xuá 2Xúa, uó
13D 874-927	o						4Xuo	
14D 947-97			u				4Xuo	ǒ, vo
15D 1021-1106	2Xo		9Xu			8Xua	5Xuo	3Xǒ, v̊
16D date?	9Xo	a	6Xu	2Xoo			25Xuo	ou, ue, 4Xvo, 2Xv̌, ǒ, 2Xů, wo

	⟨o⟩	⟨a⟩	⟨u⟩	⟨oo⟩	⟨oa⟩	⟨ua⟩	⟨uo⟩	
17D date?	5Xo		8Xu				10Xuo	2Xou, 2X̆, 6X̊
18D date?	2Xo		u				6Xuo	3XV0, 3X̆
19D date?	o		4Xu				u̇o	u̇o, ŏ, ů
20D	o		u	oo			9Xuo	2Xou
1G 8th c.							7Xuo	
2G 8/9th c.	2Xo			oo				uoa
3G 9th c.	16Xo						33Xuo	uo, ue, io 2Xŭo, 2Xuŏ
4G 10th c.	2Xo		u				7Xuo	2X̆, ů
5G 10th c.	2Xo		6Xu			25Xua	2Xuo	úo, ioa
6G 11th c.		a	9Xu				4Xuo	ue, ui, ŏo, u̯, 2X̆, ů
7G 11th c.	3Xo		8Xu			ua	4Xuo	ue, 2Xui úa, ûe
8G date?	o		u				10Xuo	ue, 2X̆ 2Xv, ŏo
9G 12th c.	o		2Xu			ua	3Xuo	oi, 2X̊
1L 790						16Xua	5Xuo	ŏa
2L end 8th c.	6Xo			5Xoo			78Xuo	
3L 830-40						ua	Xuo	ou, ue, ui, 7Xio, oe, eo, uoe, 2Xuoa
4L 868	2Xo				5Xoa	Xua	30Xuo	40Xue, 5Xui 5Xū, ūa, 8Xúá, 10Xuá, 8Xva, yá, 10Xya, 3Xýa, ye, 3Xūe, ūē
5L 881-2							10Xuo	
6L 9th c.				oo				ue
7L date?						ua	2Xuo	
8L after 822						ua	8Xuo	ue
9L 855	o						11Xuo	iuo
10L 9/10th c.			u			4Xua		
11L 9/10th c.						ua		ue, 2Xuoe
12L 10th c.							2Xuo	
13L 10th c.							5Xuo	
14L 11th c.							3Xuo	2Xyo
15L 10/11th c.			2Xu			ua	uo	2Xue ôi, îo
16L 1063								
17L 11th c.							6Xuo	

Alem. ŏ	⟨o⟩	⟨a⟩	⟨u⟩	⟨oo⟩	⟨oa⟩	⟨ua⟩	⟨uo⟩	
1D 700-62	16Xo						2Xuo	ó
2D 730-86	8Xo		3Xu		oa	ua		
3D 752-74	2Xo				2Xoa	2Xua		
4D 753-57					2Xoa	ua		
5D 763-80	19Xo				14Xoa	8Xua	uo	2Xó
6D date?	5Xo				2Xoa	2Xua	2Xuo	uoa
7D 780			3Xu		oa	17Xua	9Xuo	
8D 781-800	37Xo				9Xoa	40Xua	8Xuo	
9D 786-97	2Xo				oa	2Xua		
10D 789-865	4Xo		6Xu		oa		8Xuo	
11D 791-882						12Xua		
12D 800-14	17Xo					35Xua		
13D 804-22					4Xoa	2Xua		
14D 810-30	44Xo		4Xu	oo	oa	8Xua	2Xuo	
15D 9th c.	9Xo		5Xu			33Xua		
16D 815-40	23Xo		3Xu		11Xoa	19Xua	9Xuo	uoa
17D 819-52					3Xoa	ua		
18D 825	3Xo		u			7Xua	2Xuo	ou, wa
19D 825	o		2Xu			6Xua		
20D 825	2Xo		2Xu		2Xoa	13Xua		ǒ
21D 836-42						3Xua		
22D 850 880			u			16Xua		
23D 850-94	3Xo				oa	6Xua		
24D 880	3Xo		2Xu		4Xoa	8Xua		
25D 9th c.			u			6Xua		
26D 912			u			10Xua	1̄1Xuo	ou, uao
27D 925						3Xua	3Xuo	
28D 1199-1257								5Xou, 2Xov
1G 760-5	14Xo			4̄Xoo		ua	uo	2Xoi
2G 780	o			oo				
3G end 8thc.	6Xo	a		oo	6IXoa	2Xua		oaa
4G c. 800	16+Xo	2Xa	4Xu	oo	11?Xoa	5Xua	uo	ui
5G 802-17	130Xo	3Xa	3Xu	3̄Xoo	26Xoa	18Xua	9Xuo	
6G 810-20	1Xo		3Xu		2Xoa	182Xua	uo	ue, uę, ǒa, a^u, $2Xu^a$, uai
7G 8/9th c.	1̄Xo					111Xua	uo	
8G 9th c.			3Xu			40ua	uo	
9G 9th c.			2Xu		oa	106Xua	3Xuo	u^a, ū, u·a, :ua
10G 9th c.			2Xu			44Xua	14Xuo	$2Xue, oi, u^a$
11G 9th c.	5Xo		u		oa	ua	uo	ue, uoa
12G 9/10th c.	5Xo		4Xu		2Xoa	3Xua	uo	oi
13G 10/11th c.								ou, 2Xue, 2Xǒv
14G 11th c.	4Xo				2Xoa	6Xua		3Xou, ov
15G 12th c.	6Xo						2̄3Xuo	ǒ, 3Xū, v̊, uo
16G 12th c.	o				2̄Xoa			4Xou, X̄ǒ, o^{s}a

Alem. ō	⟨o⟩	⟨a⟩	⟨u⟩	⟨oo⟩	⟨oa⟩	⟨ua⟩	⟨uo⟩	
1L 780-93	2Xo			oo				
2L 800-04						30Xua		3Xue, uee
3L date?						80Xua		ue, ao, 2Xuua
4L late	o		9Xu			27Xua	9Xuo	ou, ov, 2Xv
5L 11th c.	9Xo		5Xu				X̄uo	
								ou, 2Xue, 14Xûe, 4Xô, 3Xuê 12Xû, 10Xuô, ûo, uôo

Bav. ō								
1D 747-60	8Xo			2Xoo	8Xoa	ua		
2D 762-80	48Xo				25Xoa			
3D 770-81	11Xo							2Xao
4D 784	62Xo		9Xu	2Xoo			7Xuo	2Xao, 8Xó
5D 782-804	28Xo		u		27Xoa	2Xua	2Xuo	
6D 805-14	50Xo		u		45Xoa	ua	uo	
7D 825-40	14Xo				32Xoa	ua	uo	
8D 827					oa	ua		ao
9D 841-8	26Xo				37Xoa	2Xua	5Xuo	2Xao, uoa
10D 8/9th c.	40Xo						5Xuo	3Xao
11D 8/9th c.	40Xo						5Xuo	5Xao
12D 8/9th c.	82Xo	2Xa	8̄Xu	5Xoo	7Xoa	ua	9Xuo	3Xao, 6̄Xou,
								óu, ů, óa, ŭo, uŏ, ŏ,
13D 9/10th c.								2Xou, ŏu, 6Xů, 3Xŏ
14D								10̄Xou

1G 790-800	76Xo			21Xoo	3Xoa			2Xao, 16Xó
2G 810-17	132Xo	5Xa	3Xu	2Xoo	95Xoa	ua		ao, 8Xó, 32Xô
3G beg. 9 c.	18Xo			3Xoo				
4G beg. 9 c.	o		u	oo				
5G 9th c.							18Xuo	ao, 2Xó
6G 850-75					3Xoa		16Xuo	ao, ó
7G date?				2Xoo	6Xoa			ui
8G end 9c.	88Xo			2Xoo				ó, ŏ, ů
9G 9th c.	29Xo		u		6Xoa	9Xua	80Xuo	
10G 10th c.	6̄Xo		3Xu		2Xoa			ue, uoa
11G 10th c.	o	a	u					3Xŏ
12G 10th c.	40̄Xo						30Xuo	ŏ
13G 10/11 c.	5Xo		9Xu		oa			
14G 11th c.	4Xo		16Xu			2Xua	7̄Xuo	ou, ue, ui,
								3Xóo, 3Xû, v̂o, 15Xûo, uó, uoa, uoi, uoi, uou, uoa
15G 11th c.						3Xua	114Xuo	io, ue, ui,
								ů, 6Xŏ, 3Xûo, vŏ, 5Xŏo, 3Xuô, ŏa, aa, oi, oi, ou, 2Xúo, iuo, 5Xuoa

Bav. ō	⟨o⟩	⟨a⟩	⟨u⟩	⟨oo⟩	⟨oa⟩	⟨ua⟩	⟨uo⟩	
16G 11th c.	o		5Xu			2Xua	X̄uo	ou, 3Xui, ŭi, 2Xů, 2Xŏ
17G 11th c.	2Xo		u			ua	X̄uo	2Xou, 5Xŏ
18G 11/12 c.								oi, ui
1L c.800	2Xo			2Xoo			3Xuo	
2L date?								
3L beg 9 c.	2+Xo					1+4Xuo		
4L beg 9c.	2Xo							ao
5L beg 9c.	o						2Xuo	ó
6L beg 9c.	6Xo			oo				
7L 810-20	3Xo						4Xuo	
8L 810-20	2Xo					ua	3Xuo	ao
9L 870				oo		4Xua	14Xuo	::a
10L 900	2Xo						uo	
11L date?	o						5Xuo	
12L 11th c.	3Xo		3Xu					
13L aft.1067							3Xuo	1̄0Xŏ, ŏa, û, ûi, uio
14L 11th c.			25%u				1%uo	ou, ue, 2%v, 90%u, 4.5%ŏ
15L 11th c.	3Xo						2?Xuo	3Xŏ

Franc. ē	⟨e⟩	⟨ei⟩	⟨i⟩	⟨ee⟩	⟨ea⟩	⟨ia⟩	⟨ie⟩	
1eD 841							ie	
2eD date?			i				3Xie	
3eD date?	e		2Xi				6Xie	
4eD date?						ia	3Xie	
1eG 9th c.	4Xe	ei	i				5Xie	
2eG 9/10th		3Xei					2Xie	
3eG 10th c.		ei					5Xie	io
4eG 10/11th						ia		2Xio
5eG 11th c.	e		i				8Xie	io
6eG 11th c.	e	ei	3Xi				3Xie	
7eG 12th c.		ei	i			ia		
1eL 790					ea	ia	ie	
2eL end 8th		ei			43Xea	ia		ii
3eL 830-40	42Xe		2Xi	ee	3Xea	X̄ia	X̄ie	
4eL 868	X̄e	ei				Xia	X̄ie	X̄io
5eL 881-2						2Xia	4Xie	io
6eL 9th c.	11Xe			ee	ea		ie	
7eL aft 822						3Xia	2Xie	
8eL 9th c.							ie	
9eL 9/10th.						4Xia		
10eL 9/10th.						2Xia	1̄Xie	

Franc. ē	⟨e⟩	⟨ei⟩	⟨i⟩	⟨ee⟩	⟨ea⟩	⟨ia⟩	⟨ie⟩	
11eL 10th c.		3Xei						2Xe^{i}
12eL 11th c.							5Xie	
13eL 11th c.							7Xie	

Alem. ē

1eD 781-800								io
2eD date?								eo
3eD 799 802	2Xe	2Xei						
4eD 823					ea			
5eD date?		ei						
6eD aft. 850					ea			
1eG 760-65	e							
2eG end 8th c.					2Xea			
3eG c. 800	22Xe	ei			2Xea	ia	ie	
4eG 802-17	11Xe	ei		ee		2Xia		
5eG 810-20								
6eG 8/9th c.			2Xi		7Xea	13Xia	2Xie	ei^{a}
7eG 9th c.					2Xea	ia		
8eG 9th c.	e		2Xi		11Xea	9Xia	2Xie	e$_{a}$
9eG 9th c.	1Xe		i		ea		5Xie	iē, 1X^{i}e
10eG 9/10 th c.	2Xe	3Xei	i		2Xea			eo
11eG 10th c.	e	3Xei				2Xia		3Xio
12eG 11/12 th c.						ia		3Xio
13eG 12th c.	2Xe	ei	i		2Xea			3Xeo, 3Xio
14eG 12th c.	2Xe						ie	5Xeo, ^{i}e, ^{i}eo
15eG date?		2Xei	i		6Xea	ia	ie	eie
1eL 800-04					4Xea	11Xia	1Xie	eia
2eL 810-20			i		3Xea			
3eL 11th c.	2Xe	ei	61Xi			1Xia	1Xie	4Xê, 92Xî, 12Xiê

Bav. ē

1eD 772-809	2Xe				ea		ie	ye
2eD 814-28	8Xe				5Xea	ia		je
3eD 836-49					2Xea		2Xie	
4eD 859-95							3Xie	
5eD 895-99	e						ie	
6eD date?	3Xe				3Xea			é, ę, ęe
7eD 9th c.	2Xe					ia	ie	
8eD 928-30	2Xe							
9eD 10th c.			4Xi				4Xie	
10eD date?	6Xe				ea			

Bav. ē	⟨e⟩	⟨ei⟩	⟨i⟩	⟨ee⟩	⟨ea⟩	⟨ia⟩	⟨ie⟩	
1eG 790	3Xe			2Xee				2Xé
2eG 810-17	9Xe				ea			ê
3eG 9th c.	e			ee				
4eG 9th c.	2Xe	ei			2Xea	ia	2Xie	iɸ, ige
5eG end 9th.	3Xe						ie	
6eG 9/10 th.	e					2Xia	3Xie	iɸ
7eG 10th c.	3Xe						Xie	
8eG 10th c.	2Xe			ee			ie	
9eG 10/11th.	e		2Xi	ee	ea	ia	7Xie	io, ie
10eG 11th c.	2Xe		10Xi			3Xia	Xie	io, iê, îe
11eG 11th c.							Xie	iê, îe, iɸ, 2X
12eG 11/12th	4Xe	6Xei	4Xi			3Xia	2X	2Xêi, eî, 2Xɬ, æa

1eL beg 9th.	8Xe				69Xea			iɐ, iae
2eL 9th c.	2Xe							
3eL 810-20	e							
4eL date?	2Xe							
5eL 870						4Xia	2Xie	
6eL 900							ie	
7eL date?							ie	
8eL 11th c.		4Xei	i				Xie	

APPENDIX C

Sample Gmc. *$\bar{e}_2$ and *$\bar{o}$ Words in OHG

The following examples of *$\bar{e}_2$ and *$\bar{o}$ words taken from the OHG data and normalized illustrate the morphological types partaking in the sound change. Insignificant congeners of these words are not included.

Gmc. *$\bar{o}$:OHG uo:

alamuosan 'Almosen'	fuor 'fuhr' (pret.)
bluojan 'blühen'	fuorran 'führen'
bluomo 'Blume'	fuotar 'Futter'
bluostar 'Opfer'	fuoz 'Fuz'
bluot 'Blut'	ganuog 'genug'
bruoch 'Sumpf'	ganuojan 'agitare'
buoh 'Buch'	ganuote 'eifrig' (adverb)
buoz 'Besserung'	gluoen 'glühen'
duo 'da' (adverb)	gestuomen 'tranquillare'
fluoh 'Fels'	gruoan 'grünen'
fluochan 'fluchen'	gruoba 'Grube'
fruo 'früh' (adverb)	gruozan 'rufen'
fruod 'weise'	guot 'gut'
fuogan 'zusammenfügen'	hruofan 'rufen'
fuoljan 'fühlen'	hruomen 'rühmen'

hruorjan 'rühren'
huoba 'Stück Land'
huof 'hub' (pret.)
huof 'Huf'
huohan 'hühnen'
huolan 'täuschen'
huoron 'huren'
huotan 'hüten'
innuovili 'viscera'
chuolan 'kühl werden'
cnuosal 'Blutverwandte'
kuoni 'kühn'
luogan 'schauen'
muojan 'molestare'
muos 'Speise'
muot 'Geist'
muoter 'Mutter'
muozan 'in der Lage sein'
nuoha 'canalibus'
pfluogen 'pflügen'
pfruonta 'Unterhalt'
ruodar 'Ruder'
ruochen 'Rücksicht nehmen'
ruowa 'Ruhe'
ruoz 'Russ'
scuof 'schuf' (pret.)
scuoh 'Schuh'
scuone 'glänzend'
sluog 'schlug' (pret.)
spuon 'von Statten gehen'
stuol 'Stuhl'
stuont 'stund' (pret.)
suochjan 'suchen'
suonnan 'versöhnen'
suozi 'suauia'
swuor 'schwur' (pret.)
truoban 'trüben'
truoen 'leiden'
truog 'trug'
truoh 'Fussfessel'
tuoh 'Tuch'
tuomjan 'ehren'
tuon 'tun'
ungafuori 'Unbequemlichkeit'
uoban 'pflegen'
uodil 'Erbgut'
uohald 'arcclives'
uohsana 'Achselhöhle'
wuofan 'klagen'
wuochar 'Gewinn'
wuostan 'wüst machen'
wuot 'Wut'
wruogjan 'rügen'
zuo 'zu'

Gmc. *$\bar{e}_2$:OHG ie:

blies 'blies' (pret.)

brief 'Brief'

die (nom.sg., nom-acc.masc.; acc.sg.fem.)

fiebar 'Fieber'

fiel 'fiel' (pret.)

fieng 'fing' (pret.)

fiara 'Seite'

flied 'Fliete'

gienc 'ging' (pret.)

hieng 'hing' (pret.)

hie (nom.sg.masc.)

hielt 'hielt' (pret.)

hier 'hier'

hiez 'hiess' (pret.)

kien 'Kien'

crieh 'Krieche'

liez 'liess' (pret.)

mieta 'Lohn'

priester 'Priester'

riet 'riet' (pret.)

scied 'schied' (pret.)

sie (nom-acc.pl.masc.; acc.sg.fem.)

scieren 'rasch tun'

slief 'schlief' (pret.)

spien 'spannte' (pret.)

thie (nom.sg.masc.)

wie 'wie' (adverb)

wiara 'feines Gold'

ziegel 'Ziegel'

zieri 'Zier'

zies 'zupfen' (pret.)

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