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THE RECONSTRUCTION OF PROTO-ROMANCE*

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1. Comparative Reconstruction: Desirability and Possibility

Leonard Bloomfield, in his book Language,¹ makes the statement:

Students of the Romance languages reconstruct a Primitive Romance ("Vulgar Latin") form before they turn to the written records of Latin, and they interpret these records in the light of the reconstructed form.

Two later writers, discussing the reconstruction of earlier stages of related languages, have made relevant statements in this connection. Bruno Migliorini says:²

Ci manca e ci mancherà sempre il metodo di ricostruire ciò che è il carattere fondamentale di una lingua: la sua consistenza in sistema, in un dato tempo e in un dato luogo.

George L. Trager, on the other hand, makes the programmatic declaration:³

It seems to me that historical linguists must now restate their tasks much more precisely. When we have really good descriptive grammars of all existing French dialects, we can reconstruct Proto-Francian, Proto-Burgundian, Proto-Norman-Picard, etc. Then we can reconstruct Proto-French; then, with a similarly acquired statement of Proto-Provençal, we can formulate Proto-Gallo-Romanic; next, with similar accurately developed reconstructions of Proto-Ibero-Romanic, Proto-Italian, etc., we can work out Proto-Romanic as a whole.

These three statements stand in a historical relation to each other. Bloomfield's represents the aim of comparative reconstruction held by many Romance scholars of the epoch of Meyer-Lübke; Migliorini's, the disillusionment of post-Meyer-Lübkean scholars with that aim; and Trager's, the goal of some presentday workers, to return to comparative reconstruction and to revivify it with an infusion of descriptive (synchronic) analysis. Meyer-Lübke and his immediate followers attempted to apply the comparative method, as developed in the 19th century and particularly by the Junggrammatiker⁴ of the 1870's, to the recon-

* Parts of this paper were read before meetings of the Linguistic Society at Rochester in 1946, the Cornell Linguistic Club in 1948, and the Modern Language Association at New York in 1948. I am indebted for suggestions to many colleagues and critics, including Professors F. B. Agard, C. F. Hockett, Y. Malkiel, W. G. Moulton, L. Pumpelly, and L. Spitzer —not all of whom agree with my fundamental thesis and none of whom are responsible for any errors the paper may contain in its present form.

¹ Language 302 (New York, 1933).

² Linguistica 104 (Firenze, 1946). On this point, cf. also the reviews by T. A. Sebeok (American Speech 22.137-8 [1947]) and the present writer (Lg. 22.259-61 [1946]).

³ Studies in Philology 43.463 (1946).

⁴ I use this term to refer specifically to Brugmann, Leskien, and the other Indo-Europeanists of the 1870's, 80's, and 90's who first developed the explicit formulation of the principles of comparative reconstruction. For that group of scholars—far more extensive in number and in time—who have accepted the basic postulate of regular sound-change, I would suggest using the term 'regularist'; cf. my Terminological Notes, Studies in Linguistics 7.60-2 (1949).

struction of the common ancestral form of the Romance languages. This method, which requires the scholar to work backward in time, proved difficult of application and exposition, and even Meyer-Lübke, in such finished products as the Grammatik der romanischen Sprachen,⁵ or his historical grammars of individual languages,⁶ resorted to the procedure of presenting his material as developing forward in time, from Latin and 'Vulgar Latin' to the Romance languages. Later and lesser comparatists in the Romance field tended toward the errors which often resulted from a misunderstanding of Neo-Grammarian procedure: abuse of 'starred' forms and neglect of historical factors other than those of phonetic change, analogical new-formation, and learned borrowing. The comparative method and the Neo-Grammarian hypothesis of regular sound change came to be identified-in the Romance field especially through the influence of Croce, Vossler, and their 'idealistic' followers⁷—with a positivistic approach which was no longer the mode. Modern Romance scholars, with few exceptions, have abandoned even the effort to reconstruct Proto-Romance,⁸ and present work in the Romance field follows, in general, the technique of Hugo Schuchardt (who, as is well known, stood aside from the Neo-Grammarian movement and made little use of comparative reconstruction): detailed examination of Classical and Late Latin material and of modern Romance material, bridging the gap between them with as few assumptions as possible concerning intermediate stages. Most present-day Romanists distrust hypothetical reconstructions attained by working backwards from later-attested material, as exemplified in Migliorini's remark.⁹ Only a few scholars at present—in general, with training in both historical and descriptive techniques—envisage, as does Trager in the passage cited, the reconstruction of Proto-Romance as a worthy goal, and not only for Proto-Romance alone, but also for all the intermediate stages between Proto-Romance and the present time.

Yet, even though current fashions in Romance linguistics are unfavorable to it, such an integral re-application of the comparative method as Trager proposes —of course accompanied by as thorough as possible a synchronic analysis and description of each stage—is very much needed at present. Its use is not only possible but highly desirable, to correct certain serious misconceptions now

⁵ Leipzig, 1890–1900.

⁶ E.g. Italienische Grammatik (Leipzig, 1890); Historische Grammatik der französischen Sprache (Heidelberg, 1908–21).

⁷ Cf. the present writer's discussions of the 'idealistic' approach and its effects on linguistics, in Italica 20.239-43 (1938); Lg. 17.263-9 (1941); Italica 23.30-4 (1946); Lg. 22.273-83 (1946); and SIL 6.27-35 (1948).

⁸ Cf. such criticisms of the comparative method as those of Bàrtoli, Introduzione alla Neolinguistica (Genève, 1925; Biblioteca dell'Archivum Romanicum II.12); B. A. Terracini, ¿Qué es la Lingüística? (Tucumán, 1942).

It must be emphasized that our reconstruction does not lead us to set up a completely 'unified' or 'unitary' Proto-Romance, as is often assumed (cf. most recently Y. Malkiel, StP 46.512 [1949]). We do not have to suppose absolute uniformity for proto-languages, any more than for any actually observed language (cf. B. Bloch, Lg. 24.194 fn. 1 [1948]). Our Proto-Romance was undoubtedly a composite of several dialects of the Latin spoken at the end of the Republican period.

⁹ Cf. also Y. Malkiel, Lg. 21.149 (1945).

widespread, concerning the relation of Romance and Latin, and the relation of the Romance languages to each other. One of these misconceptions is even reflected in Bloomfield's statement, where 'Vulgar Latin' is equated with Proto-Romance. This terminological identification is a result of the customary conception of Romance linguistic history as having been unilinear in its development: Old Latin > Classical Latin > Vulgar (Imperial) Latin > the first stages of differentiation among the Romance dialects > the later languages. The normal procedure of manuals of historical grammar¹⁰ is to trace Romance sounds and forms over a portion of this assumed development, usually from Classical Latin to the earliest attested stage of the language concerned. This works well enough for the languages usually studied: Italian, French and Provençal, and the Iberian languages, since 'Vulgar Latin' as usually set up is essentially equivalent to the ancestral form of these languages, i.e. the intermediate stage of Proto-Italo-Western Romance. But it will not work for Eastern (Balkan) Romance or for Southern Romance (Sardinian, Sicilian, Calabrian, Lucanian), which are in general conveniently neglected, or passed over with the remark that they show divergent developments from 'Vulgar Latin'. Departures from this customary procedure, such as efforts to trace Romance developments to features found in Old Latin but not in Classical Latin (thus skipping one or more of the traditional stages), often provoke irate tertiary responses, as in d'Ovidio's use of the term rancido for Old Latin when he was arguing 11 against Förster's suggestion of OLat. -nunt as an ancestor for the Italian 3 pl. verbal ending -no.¹² We can avoid this type of confusion only by re-applying the comparative method and seeing what it has to tell us about the relation of the Romance languages.

2. PROCEDURE: RECONSTRUCTION OF INTERMEDIATE AND ULTIMATE STAGES

A thoroughgoing and complete application of the comparative method to the Romance languages would have to follow essentially the steps that Trager proposes. A first approximation thereto would involve the comparison of the earliest attested stages of each language, with consideration of relevant modern dialectal material where the latter would shed light on aspects of the reconstructed ancestral language not evident from consideration of the earliest attested dialects;¹³

¹⁰ E.g. Meyer-Lübke's Grammatik der romanischen Sprachen; Bourciez's Eléments de linguistique romane⁴ (Paris, 1946); Grandgent's Introduction to Vulgar Latin (Boston, 1907); and the historical grammars of individual languages, e.g., for Italian: Meyer-Lübke's Italienische Grammatik and its various Italian reworkings; Grandgent's From Latin to Italian (Cambridge, 1927); and Pei's The Italian Language (New York, 1941).

¹¹ ZRPh. 23.313–20 (1899).

¹² ZRPh. 22.521-5 (1898).

¹⁸ For instance, the evidence afforded by Upper Aragonese dialects for preservation of intervocalic unvoiced stops, or by Asturian (Cabranes) dialect for preservation of the distinction between final -u and -o (cf. Y. Malkiel, Lg. 23.63 [1947], reviewing Josefa María Canellada, El bable de Cabranes [Madrid, 1944; RFE Anejo 31]); the similar evidence afforded by Upper Bearnese for preservation of intervocalic unvoiced stops (cf. the discussion in Part 2 of this article) and their ascription to Proto-Gallo-Romance; or the evidence afforded by Central and South Italian dialects (in the so-called 'metafonesi centromeridionale') for the distinction between final -u and -o, which we must, therefore, likewise ascribe to Proto-Italo-Romance. the end results of the two procedures would, I believe, be approximately equivalent.

The reconstruction must be done by working backward and reconstructing the immediate ancestral forms of those languages which are most closely related (e.g. Portuguese, Spanish, Catalan, and Mozarabic; North and South French; etc.). It would be unjustified, for instance, to start off by comparing less closely related dialects in preference to more closely related ones, whenever the latter were available; although the picture of the ultimate ancestral language would perforce be the same, the intermediate stages of development would be seriously misrepresented by such a procedure. 'Close relation', in this connection, means of course 'sharing linguistic features' or 'bounded by the same isoglosses', not only or mainly 'juxtaposed geographically', since dialects going back to different intermediate stages can be found in close proximity to each other, as are, say, Neapolitan-Campanian, Lucanian, and the area which Lausberg calls the 'outpost' (Vorposten) of Eastern Romance in Lucania.¹⁴

A concrete example of how this type of intermediate reconstruction can be done and what it gives us can be seen in the phonological system of Proto-Gallo-Romance. We shall set this up first on the basis of a comparison between Old South French (Provençal) and Old North French, later modifying our reconstruction of PGRom. on the basis of (1) internal re-analysis and (2) the evidence of other dialects. For the vowels, there are twelve basic sets of correspondences, given (with a provisional symbol assigned to each one) in Table I:¹⁵

	PGRom.	OSFr.	ONFr.	Examples
1.	i	i	i	OSFr. vída vida 'life' : ONFr. víðə vide.
2.	${f E}$	e	éi	OSFr. téla tela 'cloth' : ONFr. téilə teile.
3.	е	е	е	OSFr. éntre entre 'between' : ONFr. éntrə
				entre.
4.	3	3	ié	OSFr. kéra quera 'that he seek' : ONFr,
				kiérə <i>0 quiere</i> ţ.
5.	3	3	3	OSFr. térra terra 'earth' : ONFr. térə tere.
6.	Α	a	æ ¹⁶	OSFr. ála ala 'wing' : ONFr. élə ele.

TABLE I

PROTO-GALLO-ROMANCE VOWEL CORRESPONDENCES

¹⁴ Die Mundarten Südlukaniens (Halle, 1939; ZRPh. Beiheft 90), especially pp. 84-6.

¹⁶ Examples will be given in phonemic transcription (roman type) and in the conventional orthography of the language (italics), with English glosses (enclosed in quotes). The ONFr. conventional orthography is the normalized style used, for instance, by Schwan-Behrens-Bloch (Grammaire de l'ancien français⁴ [Leipzig, 1932]) and by Jenkins in his edition of the Chanson de Roland (revised ed., Boston, 1929). The transcription is based on that of the IPA, except that c stands for [t^{*}], 3 for [d^z], and a prime after a consonant letter indicates palatalization.

¹⁶ The symbol suggested by me (StP 43.579 [1947]) for the phonemic entity in ONFr. which normally corresponds to $/ \acute{a} /$ of OSFr. and the other Romance languages, which assonated only with itself in the earliest stage of literary Old French (including the earlier stratum of the Roland), and which was later merged with $/ \varepsilon /$ and spelled e. The exact phonetic nature of this phoneme is irrelevant, whether it was [æ] (as seems to me most ikely, at least for the first stage of its development), $[\varepsilon]$, $[\varepsilon]$, or what not.

10	O ROBERT A. HALL JR.						
7.	a	a	a	OSFr. kánta canta 'he sings' : ONFr. čántəð chantet.			
8.	C	Э	Э	OSFr., ONFr. mórt mort 'death'.			
9.	Э	Э	uó > ué	OSFr. bóna bona 'good' : ONFr. buóna buona > buéne buene.			
10.	0	0	0	OSFr., ONFr. fórn forn 'oven'.			
11.	0	0	óu	OSFr. góla gola 'throat' : ONFr. góula goule.			
12.	u	u	u	OSFr. núda nuda 'naked' : ONFr. núðə nude.			
All	All other correspondences between vowel phonemes can be stated in terms of						

All other correspondences between vowel phonemes can be stated in terms of these twelve, as divergent developments conditioned by phonetic surroundings or as developments of combinations of these twelve elements, e.g.:

12a.	е	е	ə	after certain consonants or clusters: e.g.
				OSFr. ğúğe <i>jutge</i> 'judge' : ONFr. ğúğə
				juge.
12b.	ay	ay	Э	OSFr. áur aur 'gold' : ONFr. ór or.

Similarly for the consonant phonemes, we find that there are thirty-five further correspondences, which at first we would set up as follows:

TABLE II

	PRO	TO-GALLO-	ROMANCE	CONSONANT CORRESPONDENCES
13.	р	р	р	OSFr. péire <i>peire</i> 'stone' : ONFr. piéðrə <i>piedre</i> .
14.	t	t	t	OSFr., ONFr. tánt tant 'so much'; OSFr. méta meta 'that he put' : ONFr métəθ meteţ.
15.	k	k	k	OSFr., ONFr. kórt <i>cort</i> 'short'; ONFr., OSFr. sék <i>sec</i> 'dry'.
16.	b	b	b	OSFr. bátre <i>batre</i> 'to beat' : ONFr. bátrə <i>batre</i> ; OSFr. ábas <i>abas</i> 'abbot' (nom.sg.) : ONFr. ábəs <i>abes</i> .
17.	d	d	d	OSFr., ONFr. dúr dur 'hard'; OSFr. fréida freida 'cold' : ONFr. fréidə freide.
18.	g	g	g	OSFr. góta gota 'drop' : ONFr. góta gote.
19.	f	g f	g f	OSFr. fáire faire 'to do' : ONFr. fáirə faire.
20.	v	v	v	OSFr. víva viva 'alive' : ONFr. vívə vive.
21.	S	s	S	OSFr. séda seda 'silk' : ONFr. séiðə seide; OSFr. fósa fosa 'ditch' : ONFr. fósə fose.
22.	С	С	С	OSFr., ONFr. cínk <i>cinc</i> 'five'; OSFr. fáca <i>faza</i> 'that he do' : ONFr. fácə <i>θ faceį</i> .
23.	3	3	3	OSFr. dóze doze 'twelve' : ONFr. dózə doze.
24.	ģ	ģ	ģ	OSFr. ğúğe <i>jutge</i> 'judge' : ONFr. ğúğə <i>juge</i> .
25.	m	m	m	OSFr. amár amar 'to love' : ONFr. amær amer.

26.	n	n	n	OSFr. nóč, nuéč <i>noch, nuech</i> 'night' : ONFr. núit <i>nuit</i> ; OSFr. menár <i>menar</i> 'to lead' : ONFr. mənér <i>mener</i> .
27.	1	1	1	OSFr. lavár lavar 'to wash' : ONFr. lavár laver; OSFr. ála ala 'wing' : ONFr. álə ele; OSFr. fóla fola 'mad' : ONFr. fólə fole.
28.	r	r	r	OSFr. rábia rabia 'rage' : ONFr. ráğə rage; OSFr. árdre ardre 'to burn' : ONFr. árdrə ardre.
29.	h		h	OSFr. ápča apcha 'axe' : ONFr. háčə hache.
30.	w	g	gų	OSFr. gardár $g(u)$ ardar 'to guard' : ONFr. guardér guarder.
31.	р ′	pč	č	OSFr. sápča sapcha 'that he know' : ONFr. sáčəθ sacheţ; cf. also example 29.
3 2.	ť	č	įt	OSFr. fáč fach 'done' : ONFr. fáit fait.
33.	b '	bį	ģ	OSFr. kambiár <i>cambiar</i> 'to change' : ONFr. čanžiár <i>changier</i> .
34.	v'	vį	ģ	OSFr. abreviár <i>abreuiar</i> 'to shorten' : ONFr. abreğiár <i>abregier</i> .
35.	s′	š, įs ¹⁷	įs	OSFr. bašár baisár baissar 'to lower' : ONFr. baisiær baissier.
36.	$\mathbf{z'}$	ž, įz ¹⁷	įz	OSFr. bažár baizár baisar 'to kiss' : ONFr. baiziær baisier.
37.	c'	С	įs	OSFr. palác <i>palatz</i> 'palace' : ONFr. paláis <i>palais</i> .
38.	3′	z, įz ¹⁷	į z	OSFr. po(i)zón po(i)zon 'poison' : ONFr. poizón poison; OSFr. plazér plazer 'to please' : ONFr. plaizír plaisir.
39.	m'	mį, mğ ¹⁷	nğ	OSFr. komiát komžát comjat 'leave' : ON- Fr. konžiéθ congieį.
40.	n'	n'	n'	OSFr., ONFr. bán' banh, bain 'bath'; OS- Fr. sen'ór senhor 'lord' : ONFr. sen'óur
41.	1'	1′	1′	seignour. OSFr. fíl'a filha 'daughter' : ONFr. fíl'ə fille; OSFr. trabál' trabalh 'work' : ONFr. travál' travail.
42.	r'	įr, r ¹⁸	įr	OSFr. váira vaira 'many-colored, bright' : ONFr. váirə vaire; OSFr. kuér cuer 'leather' : ONFr. kúir cuir.

In addition to those listed above, there are five other correspondences of consonants occurring only intervocalically, which must, at first, be assigned separate symbols:

¹⁷ Dialectal differentiation within OSFr.

 18 With /r/ occurring in word-final position and involving diphthongization of a preceding /ε/ or /ɔ/.

12			ROBE	RT A. HALL JR.
43.	β	b	v	OSFr. kobrír <i>cobrir</i> 'to cover' : ONFr. kovrír <i>covrir</i> .
44.	8	d	ъ	OSFráda -ada ending of past part. (f. sg.) : ONFrétőə -ede.
45.	δ	Z	ờ	OSFr. lauzár lauzar 'to praise' : ONFr. ločár loder.
46.	Z	Z	Z	OSFr. pausár <i>pauzar</i> 'to put' : ONFr. pozér poser.
47.	γ	g	į	OSFr. pagán pagan 'pagan' : ONFr. paiiæn paiien.
0	hor corresp	ondonces	hotwoon	consonants can all be interpreted as condi-

Other correspondences between consonants can all be interpreted as conditioned developments of one of the PGRom. phonemes tentatively assumed above, or as resulting from clusters of two or more consonants. Examples:

47a.	k (bef. a)	k	č	OSFr.	kantár	cantar	'to	sing'	:	ONFr.
	čantér <i>chanter</i> .									
47b.	ðr	įr	ðr	OSFr.	páire pa	<i>ire</i> 'fatl	her'	: ONI	Fr.	. pæðrə
	pedre.									
We must further assume at least one phoneme of stress:										

48. ' ' ' OS

OSFr. kánta canta 'he sings' : ONFr. čántəθ chanteţ; OSFr. kantác cantatz 'you sing' : ONFr. čantác chantez.

Thus far we have set up twelve basic correspondences in vowels, thirty-five in consonants, and one in stress. Now these might conceivably represent the same number of phonemes in the parent language: forty-seven segmental phonemes is not an excessive number to posit for a language without transcending the limits of realism. But our task is not ended with the setting up of these forty-eight correspondences; after all, what we have obtained here is only a first approximation, and we must now proceed to examine our stock of 'phonemes', just as we would our initial results in studying a language at first hand, and re-analyze and re-phonemicize, seeking to observe the distribution of elements within the parent language and, if possible, to reduce the number of unit phonemes that we posit.¹⁹

When we look over the material we have assembled, we notice, first of all, a marked limitation on the occurrence of those vowel correspondences which we have symbolized with capital letters (i.e. nos. 2, 4, 6, 9, 11; henceforth referred to, for brevity's sake, as 'capital-letter vowels'). They occur only under stress; and they occur in both free and checked syllables, but the checked syllables in which they occur are almost exclusively limited to word-final position. That is, we find a great many correspondences of the type OSFr. ála *ala* 'wing' : ONFr. álə *ele* < PGRom. Ala, and also of the type OSFr. tal *tal* 'such' : ONFr. tál *tel* < PGRom. tAl, but almost none of the type which we may represent by a hypothetical OSFr. *másta : ONFr. *mástə, for which we would have to set up

¹⁹ For further discussion of this procedure of reanalysis and rephonemicization, cf. Zellig S. Harris, Methods in Descriptive Linguistics (to be published by the Linguistic Society of America).

a PGRom. *mAsta. The corresponding 'small-letter vowels' (nos. 3, 5, 7, 8 9) and the high vowels /i u/ (nos. 1 and 12) are much freer in their occurrence; we find them in both stressed and unstressed, both free and checked syllables, but quite freely in non-word-final position, as in OSFr. kánta *canta* 'he sings' : ONFr. čántə θ *chantet*, and OSFr. kantár *cantar* 'to sing' : ONFr. čantær *chantet*.

This limitation on occurrence suggests that the capital-letter vowels which we first set up for PGRom. may at one time have been positional variants of the corresponding small-letter vowels, whose occurrence was conditioned by certain factors which were later lost.²⁶ Let us assume, provisionally, that the capital-letter vowels were at first limited to free stressed syllables, and that the checked syllables in which they would seem to occur according to the evidence of ONFr. and OSFr. were, in PGRom. times, not checked but free, because of some vowel which earlier followed the final consonant but which was later reduced to zero. This following vowel we may provisionally symbolize by the cover-symbol /ə/, simply meaning 'some as yet unidentified following vowel', without prejudice to any later reinterpretation we may make of it. Our previous reconstruction of PGRom. Ala 'wing' we now replace by ala; of tAl 'such', by tálə; and, if we had need of reconstructing a PGRom. *mAsta, we would replace it by *másəta. By this device we reduce our inventory of PGRom. vowel phonemes from twelve to eight or possibly seven; five of the basic correspondences are now seen to be reflexes, very possibly, not of independent vowel phonemes in PGRom., but of conditioned developments of other vowels when stressed and in a free syllable.

But this new theory immediately comes into conflict with a further fact: that the small-letter vowels occur in free syllables in ONFr. and OSFr., as in OSFr. bátre batre 'to beat' : ONFr. bátre batre < PGRom. bátre; OSFr. kápa capa 'cape' : ONFr. čápa chape < PGRom. kápa. How can we square this fact with our new theory? When we look further and observe the other instances of small-letter vowels occurring in free syllables in ONFr. and OSFr., we notice that we find them only before certain consonants that are intervocalic or that stand between vowel and /r/ + vowel (as in the examples given). We could obviate our difficulty if we assumed that these consonants had some characteristic that caused them, though intervocalic, to check the preceding syllable e.g. that they were ambisyllabic in PGRom. This means that there would have been a contrast in PGRom. between ambisyllabic and non-ambisyllabic intervocalic consonants, which phonetically would most probably have been a contrast between long and short, double and single.²¹ Hence, if we set up PGRom. báttre instead of our earlier bátre, or káppa instead of kápa, and, similarly, a double consonant phoneme after each instance of a small-letter vowel in an

²⁰ For the significance of such limitations on occurrence and their implications for earlier stages of the language, cf. H. M. Hoenigswald, Internal Reconstruction, SIL 2.78-87 (1944), and Sound Change and Linguistic Structure, Lg. 22.138-43 (1946); and for a discussion of the relation between phonemic change and the loss of factors which condition positional variants, cf. most recently W. F. Twaddell, Lg. 24.151 (1948).

²¹ Cf. M. Swadesh, The Phonemic Interpretation of Long Consonants, Lg. 13.1-10 (1937).

apparently free syllable in PGRom., we find our difficulty removed. Nor is this a wholly abstract or unrealistic procedure, so far as our OSFr. and ONFr. evidence is concerned, for we must set up a PGRom. double consonant anyhow at least in the case of /rr/, as in the correspondence OSFr. térra *terra* "earth" : ONFr. tér*a tere* < PGRom. térra.

Once we have set up double consonants for PGRom., we find further that certain consonant correspondences which we set up originally, noting that they occur only between vowels or between a vowel and /r/ + vowel (nos. 43-7), now appear to be in complementary distribution with single consonants elsewhere: β with β , z with s, γ with g. Hence we are justified in replacing such a first approximation as PGRom. koßrír "to cover" with kobrír, since our first approximation of PGRom. ábas "abbot" (cf. no. 6) is now reinterpreted as ábbas. But we are still in a quandary as to what we originally set up as $\delta/$ and $\delta/$, since both are in complementary distribution with d/elsewhere. On the evidence of OSFr. and ONFr. alone, we simply cannot decide the problem, and must leave it unsolved; according to the evidence with which we have been working so far, there were too many allophones in partial complementary distribution in PGRom., and we cannot tell what their earlier status was. Was their occurrence determined by some other factors now lost and not recoverable by deduction? Do they represent a dialectal differentiation within PGRom.? Or do they represent two phonemes which were earlier quite distinct?

Here the modern dialects give us an answer. In Béarn, in the upper mountain valleys, there are dialects which clearly indicate that, not only for the dental series, but also for the labials and gutturals, there were single unvoiced stop consonants as well as voiced stop consonants in PGRom.²² Consider the following tables of correspondences, the first set showing PGRom. /p t k/ and the second set showing PGRom. /b d g/:

Bearnese	OSFr.	ONFr.	PGRom.
sápo 'sap' espáto 'sword-like part of plow'	sába espáda 'sword'	sǽvə espǽðə 'sword'	sápa espáta 'sword'
pleká 'to fold'	plegár	pleiiǽr	plekárə
hábo 'bean' sudá 'to sweat' ligá 'to bind'	fába sudár ligár	fævə suðær liiær	fába sudárə ligárə

These correspondences survive only scatteringly in Bearnese, and in a very restricted region; but they are sufficient, and the evidence (including absence of false reconstructions, i.e. hyper-urbanisms) is enough to show that they are

²² Cf. the material gathered by W. D. Elcock, De quelques affinités phonétiques entre le béarnais et l'aragonais (Paris, 1938), especially the sections entitled Versant béarnais in Chapters 1–3 and the Conclusion in Chapter 4. The examples given here are from Elcock and the ALF. relics of an earlier state of affairs, not later developments.²³ The evidence of Bearnese thus helps us to remove a further doubt, and to assign PGRom. [8] to the /t/ phoneme and [δ] to the /d/ phoneme, and also to distinguish between single intervocalic /p/ and /b/, /k/ and /g/ for PGRom.

Furthermore, it is obvious that for PGRom. we may retain the symbols used for correspondences nos. 31–42, but must interpret them phonemically as consisting of consonants plus a phonemic feature of palatalization, similar to the situation in modern Russian,²⁴ Marshallese,²⁵ and other languages. We are thus enabled to reduce our stock of PGRom. phonemes to the following:

Vowels				Consonants					
i		u	р	\mathbf{t}		k			
e		0	b)	d	g			
ε	(ə)	Э	f	s					
	a		v	•					
				с					
					3	ģ			
			n	ı	n				
					1				
			W	7	r	\mathbf{h}			

plus phonemes of palatalization and stress. Further reduction might be possible: we might suspect, for instance, that /g/ was in complementary distribution with /i/ in hiatus, and thus eliminate one further phoneme.

The modern dialects are also of help in giving evidence for the occurrence in PGRom. of a greater variety of final vowels than we might deduce from the OSFr. and ONFr. evidence alone; cf. the final /i/ attested by such forms as *otri*, *autri* 'others' in the departments of Haute-Loire and Puy-de-Dôme (ALF map 76), and final /o/ or /u/ for, say, the types kútu kúto 'elbow' and pénsu pénso 'I think' in SE France and Switzerland (ALF maps 330, 996).

Now if we were limited to the evidence of ONFr., OSFr., and the presentday dialects of Gallo-Romance, without benefit of the other Romance languages or of Latin, our reconstruction as first made and as later amended and simplified would probably still be the occasion for fierce debates. There might be a disagreement among scholars as to the validity of the identification of capitalletter vowels with small-letter vowels, of our postulation of double intervocalic consonants, or of a separate series of single unvoiced intervocalic stops /p t k/ for PGRom., similar to the disagreement now existing over the so-called 'laryngeals' of Hittite and the Indo-European languages.²⁶ Critics of the reconstructed

23 Cf. Elcock, op.cit. 121-2.

²⁴ Cf. G. L. Trager, The Phonemes of Russian, Lg. 10.334-44 (1934).

²⁵ Cf. Denzel R. Carr, Notes on Marshallese Consonant Phonemes, Lg. 21.268-9 (1945).

²⁶ Cf. E. H. Sturtevant, The Indo-Hittite Laryngeals (Baltimore, 1942), and An Introduction to Linguistic Science 158-63 (New Haven, 1947) and references given in fn. 7, p. 160, particularly the criticisms of Pedersen and Bonfante. Proto-Gallo-Romance might condemn it in the name of one special doctrine or another, or of some a-priori consideration.²⁷

Fortunately, we are not in this position. Our next step, once having reconstructed PGRom., is to examine it in the light of the related Romance languages, when we have followed the same procedure and have reconstructed Proto-Ibero-Romance, Proto-Italo-Romance, Proto-Eastern (Balkan) Romance, and Proto-Southern Romance. What we find usually confirms our reconstruction of PGRom., and enables us to proceed farther back in our reconstruction to a still earlier stage. We need not go here into such detail for these intermediate stages as we have for PGRom.; suffice it to say that when we have reconstructions for these other groups as we already have for PGRom., we are able to reconstruct the further preceding intermediate stages and to arrive eventually at a reconstruction of PRom. itself. Naturally, at each stage, we apply the procedures of descriptive linguistics to our results, examining them, reanalyzing and reinterpreting them. In this way, we establish Proto-Western Romance by comparison of Proto-Gallo-Romance and Proto-Ibero-Romance, affording light especially on the earlier status of vowels (definite elimination of our coversymbol /ə/, occurrence of final vowels) and of consonant clusters such as /kt/ and /ks/, which developed in PGRom. to /t'/ and /s'/, but in PIbRom. to /xt/ and /xs/. The inclusion of Proto-Italo-Romance again deepens our time perspective and enables us to set up Proto-Italo-Western Romance, approximately equivalent to the conventional 'Vulgar Latin'. PItRom. furnishes conclusive proof of the correctness of the consonant system (with unvoiced and voiced stops, double and single consonants) which we assumed for PGRom. and must also assume for PIbRom., and gives evidence for further distinctions in the consonant system, e.g. /č/ vs. /c/, as in PItWRom. bráčču 'arm' > PItRom. bráčču : PWRom. bráccu, but PItWRom. póccu 'well' > PItRom. and PWRom. poccu. On the other hand, the extensive system of palatalized consonants which we had to set up for PGRom. is seen to have developed from earlier clusters of /i/ + cons. or cons. + /i/, merged with other combinations such as /k/ + cons. or cons. + /k/.

A still further deepening of perspective comes when we bring Eastern Romance (Balkan and the 'outpost' in Lucania) into the picture, giving us Proto-Continental Romance, in which we find evidence for new consonant clusters (e.g. /p/ + cons., as in PBRom. sépte 'seven' : PItWRom. sétte < PContRom. sépte) and a distinction among back vowels which we did not hitherto suspect, between two types of high vowels (cf. the table below). Finally the inclusion of Southern Romance (Sardinian, Lucanian, Sicilian) shows us an analogous distinction among front vowels. Thus, we eventually arrive at nine sets of basic vowel correspondences, for which we at first postulate nine vowel phonemes in the parent (Proto-Romance) language:²⁸

²⁷ Cf. the present writer's discussion of such objections in Lg. 22.273-83 (1946).

²⁸ In this table and in following discussions of PRom. vowel phonemes, the symbol ^ indicates relatively high and tense tongue position, and ~ indicates relatively low and lax position; a raised dot · following a vowel indicates length.

PRom.	PSRom.	PERom. I	PITWROM.
PHONEME			
u^	kúlu 'arse'	kúlu	kúlu
u×	gútta 'drop'	gútta	gótta
0^	nódu 'knot'	nódu	nódu
0۲	mórte 'death'	mórte	mórte
a	kárru 'cart'	kárru	kárru
e∽	térra 'earth'	térra	térra
e^	éska 'bait'	éska	éska
i~	píske 'fish'	péske	pésče
i^	víta 'life'	víta	víta

Furthermore, we are justified in making a deduction concerning the phonetic character of the new phonemes for which we have here set up the symbols /u·/ and /i·/. Inasmuch as they gave /u i/ in some languages and /o e/ in others, we may consider that their phonetic character must have been intermediate between [i u] and [e o], i.e. lax [I u]. Theoretical considerations of phonetic patterning strengthen this assumption, in that the lax [I u] stand to the tense [i u] in exactly the same relation as do the lax [ϵ o] to the tense [e o].

Then a further analysis of the vowel system thus obtained shows that it can be reduced from nine separate vowels to five vowels plus a phonemic feature which—so far as our Romance material shows—consists of the contrast between close and open, and which applies to four out of the five vowels of Proto-Romance. We can extract this feature and, if we choose, can symbolize it by /^/ written after the close vowel, leaving the open vowel unmarked.²⁹ Further internal reconstruction might then lead us to suspect that the same contrast applied at one time to all five vowels; and careful consideration of its relation to stress in free and checked syllables might also lead us to suspect (though we might not be able to prove it in detail) that stress was at one time correlated in some way with syllable length, and that our feature symbolized by /^/ was perhaps earlier one of length rather than closeness of vowel.

Similarly, among the consonants the occurrence of /k/ in Sardinian and Vegliote corresponding to $/\check{c}/$ in Italo-Western Romance—as in PRom. déke 'ten' > PSRom. déke (> OSard. déke > Mod.Sard. dége), PBRom. déke (> Alb., Vegl. dík), but PItWRom. déče—would give us a clue to the earlier status of that $/\check{c}/$ as an allophone of /k/ before front vowels, including /i/.The passage of [č] to independent phonemic status took place when a following [i] before a back vowel became merged with it and the resultant [č] thus came to contrast with [k] before back vowels, as in PItWRom. bráčču 'arm' from an earlier brákkju, contrasting in PItWRom. with (say) kúlu 'arse'. Similar

²⁹ We could, of course, operating on an abstract plane, equally well decide to extract lowness of tongue position as a separate phonemic feature and symbolize it by /r/, leaving the high vowels unmarked. Our decision to extract height of tongue position and leave low vowels unmarked is admittedly determined by ulterior considerations, namely the ease of equating PRom. /^/ with Latin /·/.

considerations hold for PItWRom. /i/, which turns out to have come from a merger of PRom. /g/ before front vowel, with PRom. (initial or intervocalic) /i/; and for PItWRom. /c/ and /3/, resulting from fusion of earlier /ti/ and /di/ respectively, as in PItWRom. póccu 'well' < PRom. pútiu, and PItWRom. $5r_{3u}$ 'barley' < PRom. ordiu.

A further point is in order here. What should be done in the case of such correspondences as that shown in no. 29 under the Proto-Gallo-Romance consonant system, in which we find ONFr. /h/ corresponding to zero in OSFr., and, on further examination, in the other Romance languages as well? We might, of course, carry our reconstruction of /h/ all the way back to PRom., but, as comparatists have long since realized, we should be wary of assigning to the parent speech a phoneme or other feature attested only in a single language. In this instance, almost all the words in which /h/ occurs are limited to the Italo-Western Romance group. We might be justified in carrying it back at least to that intermediate stage; but, with almost all these words absent from Eastern and from Southern Romance, we have doubts about its validity for Proto-Romance. If we use our knowledge of the neighboring Germanic languages, we immediately observe cognate words in Germanic, and the obvious thing is to assume borrowing not earlier than the 'Vulgar Latin' (PItWRom.) stage. Even if we did not have such knowledge, we would still have our doubts, and might suspect that these words showing initial /h/ had been borrowed into PItWRom, from some language having that phoneme, and that the phoneme had been lost everywhere except in ONFr. Similar considerations would keep us from assigning the phoneme /w/ of Germanic loan-words (as we know them to be) to PRom.

The phonemic system we finally set up for Proto-Romance is, therefore:

Vowels			Consonants					
i		u	р		\mathbf{t}		k	
e		0		b		d		\mathbf{g}
	a		\mathbf{f}		s			
				\mathbf{m}		n		
į		ų			1			
					r			

plus the phonemic features of vowel height // and stress, and the occurrence of double consonants.

The same technique, applied to the morphological system and the syntax (phrase and clause structure) of the Romance languages, would give us a good picture of the essentials of Proto-Romance as a linguistic system. We would see a system of nominal inflection with at least two numbers, two genders, and five cases (nominative, accusative, genitive, dative, and vocative), and verbal inflection with three persons, two numbers, two stems, and at least three tenses and various non-finite forms built on each stem. A large number of the formant elements of Romance derivation can be similarly reconstructed, including prefixes, suffixes, and compound types. Comparative syntax would show us a PRom. system of endocentric and exocentric phrase-types and the existence of the major clause having a verb or equivalent phrase as its essential element, accompanied or not by a subject. This system as reconstructed and outlined here is of course nothing novel to Romance scholars; the all-important point is that we would arrive at it by methods of purely comparative reconstruction.

When we now turn to our records of Latin, we find our inferences—inverted predictions, backwards rather than forwards in time, as to what we may expect to discover concerning the past-largely corroborated. We find our reconstruction of phonemics very close to the facts as we know them for Latin; Classical Latin gives us evidence for certain further phonemic features (such as the existence of a phoneme /h/—not connected with the /h/ occurring in Germanic loan-words—and the occurrence of /m/ in word-final position) which we could not infer from any of the Romance material, and gives us a basis for a better understanding of some Romance phenomena such as the relation of vowel quality, quantity, and stress, and the loss of phonemic contrast between /a/aand /a·/. Yet Classical Latin differs in various respects from Proto-Romance, and is clearly not its direct ancestor. Thus, Romance shows a use of the relative kúniu -a 'whose' as an adjective which was not accepted as a normal feature of Classical Latin, where cuius was an invariable; and we have to go back to Plautine Latin to find *cuius -a -um* normally inflected as an adjective. Clearly, Romance is here continuing an Old Latin feature which was lost in Classical Latin. Similarly, Classical Latin gave to the word báro^{*} baró^{*}ne 'strong man', which in Romance has meliorative meaning, a pejorative turn in the sense of 'lout, oaf', which has continued only in the Italian words baro and barone 'knave, rascal'; Classical Latin baron- cannot be considered as the direct ancestor of the Romance words built on this stem and meaning 'man, husband, nobleman'.³⁰ From these and similar instances, we must conclude that Classical Latin and Proto-Romance were not 'mother' and 'daughter', but rather 'sister' languages (very closely related and easily mutually intelligible), by comparison of which we are enabled to reconstruct a slightly earlier stage which we may label simply Latin.

It is perfectly true that if we had no knowledge of Latin, we should be unable to place Proto-Romance in space or in time, as Migliorini says in the passage quoted in our first paragraph. As it is, by comparison of what we know other than by inference based on Romance sources—of Latin, we can place Proto-Romance reasonably well in time. We must place it far enough forward in time to include the simplification of /ei/ to /i·/ (ca. 150 B.C.), of /ae/ to /e/ (1st cent. A.D.) and of /n/ before /s/ to (at least) nasalization (1st cent. B.C.), and the loss of /h/ (ca. Catullus' time or earlier). On the other hand, we must place it far enough back in time to precede the merger of /e·/ and /i/, /o·/ and /u/ (1st-2nd cent. A.D.) and the establishment of a new series of palatal phonemes through merger of the palatal allophones of /k g/ before front vowels with the developments of /ki/ and /i/ respectively. On the whole, the period of the late Republic and the early Empire (Augustan era) is indicated as the

³⁰ Cf. the present writer's discussion of this word, SIL 5.65-8 (1947).

ROBERT A. HALL JR.

best time at which to set Proto-Romance. Certain probable survivals of features attested in earlier Latin (e.g. Plautine *cuius -a -um* 'whose' as an adjective in Ibero-Romance; Plautine *-nunt* 3 pl. of verbs in Italian *-no*) would indicate that the beginning of our period should perhaps be put as far back as 250-200 B.C.; this is confirmed by considerations of settlement history, earlier emphasized by Gröber and recently revived by Bonfante.³¹

3. METHODOLOGICAL CONSIDERATIONS

There are some who think that the procedure we have advocated here, the comparative reconstruction of Proto-Romance, is useless or even harmful:³²

For what concerns Vulgar Latin, the application of the comparative method has proved not merely largely unnecessary, but partly harmful. There is an unbroken stream of Latin-Romance written material that permits us to observe the changes that took place without having to reconstruct them by the comparative method, which was the only one applicable in the case of the other groups mentioned [Indo-European, Germanic, Celtic, Slavic]. Eyewitnesses are far more cogent than circumstantial evidence, in linguistics as at law.

We suggest, on the contrary, that comparative reconstruction, as applied to Proto-Romance, is useful and beneficial, both for Romance linguistics and for linguistics in general. We shall discuss, in the following paragraphs, certain methodological considerations relating (a) to the comparative method as such; (b) to the relationships of the Romance languages; and (c) to future work in Romance linguistics.

A. THE COMPARATIVE METHOD, as developed in Indo-European and Finno-Ugric linguistics in the 19th century, and later applied to other fields such as Malayo-Polynesian, Algonquian, Athabaskan, Uto-Aztecan, Bantu, etc., is a means whereby we are enabled to reconstruct the essential traits of a linguistic system from which divergent languages have developed by later differentiation. The comparative method rests, indeed, on two basic assumptions: one, that phonetic change is regular;³³ the other, that where we find obviously related but different forms, they are to be considered as having developed from an earlier common source unless evidence to the contrary can be adduced.³⁴ Both of these are assumptions, not exceptionless iron 'laws': there are many exceptions, but wherever exceptions are found, our assumptions are productive in that they lead to further examination and re-formulation of the facts.³⁵

Romance occupies a crucial position in this respect, in that it offers one of the few instances in which we have quite full material for the 'daughter' languages, and also very full data for a language which, though not exactly the parent language, was extremely close to it. On the other hand, we do not have adequate data on the actual parent language itself (Proto-Romance), nor for

³² M. A. Pei, Symposium 1:3.118 (1947).

³⁴ Cf. Bloomfield, Language §18.2.

³¹ L'origine des langues romanes, Renaissance 1.573-88 (1943).

³³ Cf. the discussion in Bloomfield's Language, Chapter 20.

³⁵ Cf. the penetrating and illuminating discussion of the comparative method and of the assumption of phonetic change by C. F. Hockett, Implications of Bloomfield's Algonquian Studies, Lg. 24.117-31 (1948), especially 125-7.

the intermediate stages between Proto-Romance and the earliest documents in specifically Romance speech. Such written material as is available from the Late Latin period is so confused and untrustworthy that it would be unrealistic to interpret it literalistically and consider it a faithful reflection of popular speech.³⁶ These gaps must be filled in by reconstruction. Now when we reconstruct such Proto-Romance forms as vi^ta 'life', béne 'well', dormi^re 'to sleep', etc., we find that they correspond point for point to well-attested Latin words such as vita, bene, dormire and so on; the instances of such correspondences can be numbered in the thousands. Hence we are justified in concluding that the method which we have followed in the reconstruction of Proto-Romance is accurate, and that we have a right to go further and extrapolate from known Romance data to the establishment of hypothetical Proto-Romance forms. For instance—to keep to elementary, well-known material—Romance gives us no basis at all for assuming a cluster /ns/,^{36a} or final /m/ in polysyllables, or initial /h/ in any words except those borrowed from Germanic (cf. above). We must reconstruct PRom. omine 'man', piske 'fish', mesa 'table' and the like, even where Classical Latin wrote (and at one time spoke) hominem, piscem, mēnsam. We must reconstruct PRom. méle 'honey', féle 'gall', sále 'salt', even where Classical Latin offers us only mel, fel, sal; and we must take the word of our reconstruction as being basically more correct for PRom. than the Classical Latin. Sometimes we find direct confirmation of our reconstructions (positive or negative), as in Latin graphs like cosul for consul, or in Late Latin salem for sal. More often, the confirmation is indirect, as in Catullus' poem on Arrius and his misplaced aitches, or in classical prosody (which elides final syllables ending in m; and in this same category of indirect confirmation come the fluctuations in spelling and grammar which we find in inscriptions and other documents which reflect popular speech to a certain extent. If, for instance, we find in an inscription³⁷ sepulchrum istu 'this tomb' in one line, and *sepulchru* istum in the next, we do not assume that each vagary of spelling

³⁶ H. F. Muller, The Chronology of Vulgar Latin (Halle, 1929; ZRPh. Beiheft 78); H. F. Muller and P. Taylor, A Chrestomathy of Vulgar Latin (New York, 1932); H. F. Muller, L'Epoque mérovingienne (New York, 1945), and cf. the review of the latter book by A. H. Krappe, Philological Quarterly 26.92-5 (1947).

^{36a} In this connection, the Romance words belonging to the family of It. pensare, Fr. penser, Sp. pensar 'to think' seem at first to contradict this statement, and to give evidence for a cluster /ns/. The answer is that the evidence thus afforded is valid only for Italo-Western Romance. In Roumanian and Sardinian, only forms without /n/, meaning 'weigh' or 'press, worry', are present; cf. Meyer-Lübke, REW³ §6391. For Proto-Romance, therefore, we have the right to set up only /pe^sáre/ 'to weigh, press down'; the learned word /pe^nsáre/ is to be ascribed only to the PItWRom. stage. Naturally, as soon as /pe^nsáre/ was introduced from Classical Latin, it brought the cluster /ns/ back again, but evidently only into that part of Romance speech which was continued in Italy and the West. A similar argument applies in the case of the Greek loan-word $\kappa \dot{a}\mu\pi\tau\epsilon\nu$ 'bend, turn, double around, bow down' > Lat. campsāre > It. cansare 'set aside, avoid' and Sp. cansar 'weary', and other Romance words showing the cluster /ns/. (Cf. Lg. 14.205-6 and 19.154-6.) Late Latin spellings such as thensaurus for thesaurus show simply that there was a dialectal difference at the time, and do not necessarily prove that we must assume the cluster /ns/ for PRom.

³⁷ In an inscription of the Christian era from Rome, reprinted in Muller and Taylor, A Chrestomathy of Vulgar Latin 108, without further indication of source.

represents directly a corresponding vagary of speech (which is unrealistic in the light of all we know of human spelling behavior); instead, we draw on our knowledge of the Romance languages and of reconstructed Proto-Romance, to interpret both of these spellings as standing for /sepúlkru ístu/ (or perhaps /sepólkro ésto/), and istu(m) as meaning 'this'.

But there are certain qualifications we must make immediately. One is that comparative reconstruction is of course limited to the available material and the deductions we can make therefrom. For this reason, every scrap of reliable evidence which we can find is of value, and even unreliable evidence needs to be taken into account and sifted for its bearing on the problem in hand.³⁸ The existing Romance languages and dialects give no evidence for a contrast between /a/ and /a^/ in Proto-Romance, although we might suspect on grounds of internal evidence that such a contrast had been present earlier; but if we had trustworthy material from some now lost Romance dialect which showed this contrast or developments thereof, we would be enabled to push our reconstruction still further back and to set up with certainty a pre-Proto-Romance contrast of /a/ vs. /a^/ or /a·/. To a large extent, of course, Classical Latin fulfills this function, and enables us to state as certainties what would otherwise remain plausible but not absolutely certain hypotheses.

It also goes without saying that comparative reconstruction must be accompanied by descriptive reanalysis at every stage. If this is not done, we run the risk of needlessly multiplying the non-essential and non-significant features we set up for each stage of our reconstruction; when this potential of error is raised to several powers in successive stages of comparison, we may obtain an extremely over-complicated picture. Occasionally, scholars have made such unrealistic suggestions as setting up a special phoneme to cover one individual discrepant etymological correspondence, as did Bovet in hypothesizing a phoneme which he labeled $/\Delta/$ and an etymon symbolized by $/amb\Delta \Delta ire/$ for Fr. *aller*, It. *andare* etc.³⁹ It is only to this type of exaggeration that we may legitimately apply such strictures as the following:⁴⁰

²⁸ For this reason, old documents and relic forms in modern speech acquire a value, in this connection, seemingly quite disproportionate to their usefulness in other connections (literary or esthetic, or even in characterizing modern dialects). The scholar reconstructing a proto-language must, of necessity, be something of an anticuario verbal (as one Aragonese termed Elcock; cf. Elcock, op.cit. 19). Opponents of the comparative method have made a reproach of this fact, and have characterized comparatists and Neo-Grammarians as 'seekers after dead fossils' and the like; cf. M. G. Bàrtoli, Introduzione alla Neolinguistica; B. A. Terracini, ¿Qué es la Lingüística? 34; G. Bonfante, Lg. 23.360, 367 (1947). There is, of course, as much justification for 'fossil-seeking' in this connection as there is in any other historical study, such as geology or comparative anatomy. Far from being out of touch with the process of growth and change in biological or social life, the good 'fossil-seeker' derives an understanding of life from his work.

³⁹ Cf. E. Bovet, Ancora il problema *andare*, in Scritti varî di filologia (A Ernesto Monaci) 243-62 (Roma, 1901); and the criticisms of his procedure by E. Gorra, Rassegna bibliografica della letteratura italiana 10.103 (1902), and by C. Salvioni, Archivio glottologico italiano 16.209-10.

⁴⁰ G. Bonfante, Lg. 23.374 (1947).

... the traditional neogrammatical procedure of piling up everything in the reconstructed mother tongue, which becomes a sort of monstrous accumulation of all possible words, forms, sounds, and declensions of every kind ...

But we can see from the foregoing discussion that this description is not applicable to intelligent reconstruction, practiced with all the resources of descriptive analysis and with all care given to eliminating the effects of possible borrowings, analogical reshapings and other interfering factors. When thus performed, the example of Proto-Romance shows us that comparative reconstruction comes close enough to the 'real thing' to be regarded as quite trustworthy.

Taken in this way, and with full realization of all the factors involved, our procedure with Proto-Romance proves also the validity of the 'family-tree' type of reconstruction. Many recent writers have questioned the 'family-tree' principle in historical linguistics, and have declared it incompatible with the fact that linguistic changes spread.⁴¹ Actually, however, there is no contradiction between 'Stammbaumtheorie' and 'Wellentheorie':⁴² the 'family tree' is a schematic description of the occurRENCE of changes, the 'wave theory' covers the description of their SPREAD. There are, of course, continual splittings-off of new dialects in any language, which often become overlaid again (wholly or partially) by the introduction of features from other dialects, or which themselves spread and overlay other dialectal developments. Our family-tree must be as detailed as we can make it, to give as close a picture as possible, by successive approximations, of the ever-changing reality, the differentiation of a language into multifarious dialects and of their later relationships (replacement, merger).

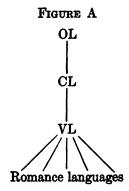
The method of comparative reconstruction and its schematic representation in the 'family tree' gives us a statement of linguistic relationships as such, by their main dividing isoglosses and in the order of their origin. In connection with these relationships, the geographical position of the languages concerned is a matter which it is often useful to know, but never essential. Sardinian, for instance, would be a valuable witness to certain features of Proto-Romance (distinction between /i/ and /e^/, 'hard' /k/ and /g/ before front vowels), whether its speakers lived in Sardinia, South America, or Timbuctoo.⁴³

B. THE RELATIONSHIP OF THE ROMANCE LANGUAGES. It is customary to represent the Romance languages as developing in a unilinear fashion, from Old Latin through Classical Latin to 'Vulgar Latin', and then differentiating into the various branches, as shown in Figure A.

⁴¹ E.g. Bàrtoli, Terracini, Bonfante.

⁴² As pointed out most recently by A. Goetze, Lg. 17.168 (1941); cf. also the well-balanced discussion of the relation between comparative method and linguistic geography by Bloom-field, Language, Chapters 18-20.

⁴⁸ It is through exaggeration of the factors of geographical position that M. G. Bàrtoli and his followers have been led into setting up ad-hoc rules (norme) by which all the evidence is judged. Cf. Bàrtoli's unsuccessful attempts to explain important exceptions to his rules, such as the conservative character of Sardinian (Introduzione alla Neolinguistica) or of Italian in the center of the Romance-speaking territory (Per la storia della lingua d'Italia, AGlB 21.72-94 [1927]).



But when we apply the comparative method, we get a decidedly different picture of the relationship of these languages to each other, as shown in Figure B. For each of the later stages of dialectal differentiation, marked on Figure B

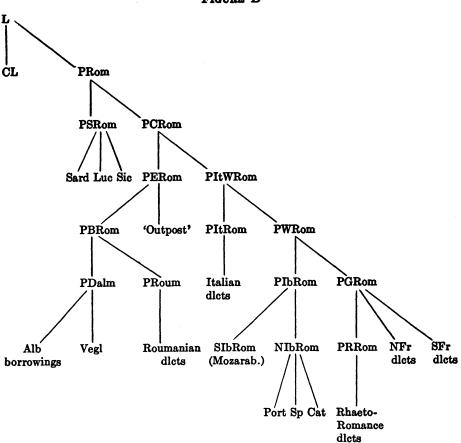


FIGURE B

as 'Roumanian dlcts' (i.e. dialects), 'Italian dlcts', etc., further branches would have to be set up for which there is not room here.

We must recognize that, as suggested in Part 2 of this paper, the time of Proto-Romance unity must be pushed back far enough to include the features (nine-vowel system = five vowels plus contrast between tense and lax; 'hard' /k/ and /g/ before front vowels) for which Eastern and Southern Romance (especially Sardinian) give evidence. The earliest group to split off, through not sharing in the merger of /iv/ and /e^/, involved Sardinian, Lucanian, and Sicilian;44 the next to split off, through not sharing in the parallel merger of $/u^{4}$ and $/o^{4}$, was Eastern, particularly Balkan, Romance. For the intermediate stage that was the parent of both Balkan Romance and the other Romance languages of the European continent we may provisionally adopt the name Proto-Continental Romance; and for the intermediate stage that was the parent of the Romance languages not included in the Southern or the Eastern groups, the term Proto-Italo-Western Romance. In this stage we find the merger of /ki/ with /k/ before front vowels into /c/, of /i/ with /g/ before front vowels into /ğ/, and the seven-vowel system /i e ɛ a ɔ o u/ customarily ascribed to Vulgar Latin. (It is not surprising that such a vowel system is customarily set up for VL, since the latter is usually established on the basis of Italo-, Gallo-, and Ibero-Romance.) If we wish to keep and use the term 'Vulgar Latin', it would be well to restrict it to the sense of Proto-Italo-Western Romance as here defined.⁴⁵ Proto-Italo-Romance was then differentiated from Proto-Western Romance (the ancestral form of Gallo- and Ibero-Romance) by the assimilation of certain consonant clusters in PItRom. (/pt ps kt ks/ etc.) and by the development of a series of palatalized consonants in PWRom. (cf. Part 2) above). Later differentiations took place within each group, such as the sonorization of intervocalic unvoiced consonants in certain dialects of Gallo-Romance and of Ibero-Romance (later spreading to almost the entire Western Romance territory), the diphthongization or raising of vowels in stressed free syllable in Francien and Tuscan, etc., giving rise to the sub-varieties of each major division.

Even this proposed reorganization of the scheme of relationships among the Romance languages is sketchy, and will do only for a tentative grouping. Some dialectal divisions that undoubtedly once existed in the time of the Empire must have been lost in later centuries, and it is perhaps to the effects of such lost dialectal divisions that we should ascribe a number of apparently inexplicable divergent developments in modern Romance, such as the anomalous *l*-of Italian *luglio* 'July' < PRom. jú^liu, and the equally anomalous initial /ġ/

⁴⁴ Cf. H. Lausberg, Die Mundarten Südlukaniens; and M. L. Wagner's works on Sardinian, especially his Historische Lautlehre des Sardischen (Halle, 1941; ZRPh. Beiheft 93) and Flessione nominale e verbale del sardo antico e moderno, Italia Dialettale 14.93-170 (1938) and 15.1-29 (1939).

⁴⁵ Certainly it is not conducive to clarity to use the term 'Vulgar Latin' to apply indiscriminately to all material written in Latin since Classical times, since the degree to which popular speech is reflected in such documents varies greatly and is anything but trustworthy. 'Late Latin' is a much better term for this type of material, since it implies no judgment as to the accuracy with which the writing reflects everyday usage. of Italian giglio 'lily' < PRom. li \wedge liu.⁴⁶ In any case, our picture of the intermediate stages of dialectal differentiation in Romance should be made as detailed as possible, with all the means at our disposal.

C. FUTURE WORK IN ROMANCE LINGUISTICS should represent a carrying forward of all the constructive traditions established in the last century since the time of Diez, without exclusion of any type of approach on a-priori grounds. It should include, therefore, the synchronic analysis of as many modern and medieval Romance linguistic systems as possible; the comparative reconstruction of Proto-Romance and intermediate stages of Romance dialectal development; and the interpretation of historical and geographical data in the light of the results thus obtained—with, of course, resultant further illumination of our previous analyses and reconstructions.

We must emphasize especially that synchronic analysis, comparative reconstruction, and the direct study of historical data such as documents and texts are by no means mutually exclusive. They are but different angles from which the same material—human speech and its history—can be approached, and all are equally essential.⁴⁷ To emphasize any one of these approaches at the expense of any other is harmful, in that it gives a false perspective. The latter half of the 19th century may have erred in over-emphasizing comparative reconstruction at the expense of other aspects of research; but the first half of the 20th century has erred far more in its almost complete neglect of comparative work in Romance. It must be the task of the second half of our century to restore a proper balance between comparativism and philology, to heal the unfortunate breach that has arisen between them, and to integrate into Romance linguistics the more recently developed techniques of structural analysis.

Furthermore, workers in Romance linguistics are especially favored, as we have already pointed out, in having material available at both ends of the period they study. For this reason, scholars in other fields often look to them for methodological guidance; Romance should be the ideal proving ground for linguistic method, and especially for testing the principles and procedures of comparative reconstruction, which is so essential in other fields where the parent speech is completely undocumented. But workers in Romance have all too often felt that the availability of material at both ends of their period frees them from the necessity of comparative reconstruction, and have turned their attention elsewhere. Hence a gap has developed between Romance and other fields of

⁴⁶ That is to say, we might assume that in a certain dialect of PRom., initial /l/ and /i/ were merged, either in /l/ or in /i/ or in a third development (such as /l'/), so that PRom. li^lu and iu^lu came to be identical in their initial sound. Then at a later stage, these two forms were subjected to 'false regression', with *ii^lu and *lu^lu arising as over-corrected forms and surviving in Italian. Cf. J. Babad, ZRPh. 19.270 (1895); also C. H. Grandgent, From Latin to Italian 70; Meyer-Lübke (tr. Bàrtoli and Braun), Grammatica storica della lingua italiana e dei dialetti toscani 91-2 (Torino, 1931); Pei, The Italian Language 50-1 (New York, 1941)—all of which either leave the problem unsolved or assume some kind of dissimilatory process.

⁴⁷ Cf. the discussion of the relation between philology, field method, and reconstruction, by C. F. Hockett, Lg. 24.118 ff. (1948).

linguistics, to the regret of thoughtful scholars.⁴⁸ It is incumbent on Romance scholars to analyze and interpret their exceptionally full stock of linguistic material, using all methods of study at their disposal, working both backward and forward in time. Only thus will Romance linguistics be enabled to do what others expect of it: to serve not only as an end in itself but as a model and a training-ground for workers in all fields of historical linguistics.

⁴⁸ Cf., for instance, L. H. Gray, Foundations of Language 460 (New York, 1939).