STRUCTURE AND SYSTEM
IN THE ABAZA VERBAL COMPLEX

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THE Abaza (ṭap̱ánta [1]) language is spoken on the northern side of the Caucasus in the district of Cherkessk [2] (formerly Yezhov, formerly Sulimov, formerly Batalpashinsk), and by exiled communities in Turkey. It belongs to a closely related group with Abkhaz (apsówa) and other dialects, including (a)ʃᵞqaréwa ; this group, which is sometimes also referred to as Abkhaz, is related in turn to Circassian or Adyghe (including Kabardian) and Ubykh, to form the western branch of the North Caucasian family.

The analysis here presented [3] is based on the speech of a

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[1] Stated as ṭapanta by Serdiuchenko, Памяти Марра, pp. 245, 252 ff.

[2] For the distribution of speakers see Serdiuchenko, op. cit., p. 244, n. 3.

[3] Other accounts [bracketed items unavailable to me] :—

K. Bouda, ' Das Abasinische, eine unbekannte abchasische Mundart,' ZDMG, N.F. 19, 1940, pp. 234–250.

G. P. Serdiuchenko, ' Об абазинских диалектах,' Памяти Марра, Moscow/Leningrad, 1938, pp. 244–257 ;

—— [' Абазинская фонетика,' Ученые Записки Ростовского па Дону государственного университета, т. V, 1947] ;

—— [Фонетика и орфография абазинского языка, Cherkessk, 1954] ;

—— ' Словарные расхождения в диалектах абазинского языка,' Языки Северного Кавказа и Дагестана, 2, pp. 5–38 ;

—— ' Абазинские сказки,' ibid., pp. 61–86 ;

[—— and T. Z. Tabulov, Абаза бызшвала грамматика : ахъвы I, Фонетики морфологии, Stavropol 1947, 1951 ; ахъвы II, Синтаксис, 1948].

[A. N. Genko, Абазинский язык, 1955].

[K. Lomtatidze, ტაპანთური დიალექტი (Тапантский диалект абхазского языка), Tiflis, 1944 (with Russian résumé)].

Cf. also :—

G. Deeters, ' Der abchasische Sprachbau,' Nachr. Göttingen (Phil.-Hist. Kl.), 1931, pp. 289–303.

G. Schmidt, ' Zum Konjugationssystem des Abchasischen,' Studia Orientalia, I, 1925, pp. 242–252.

N. Y. Марр, О языке и истории Абхазов, Moscow/Leningrad, 1938 ; Абхазско-русский словарь, Leningrad, 1926.

[K. S. Shakryl, ' Фонетические особенности бзыпского наречия по сравнению с абжуйским наречием ', Труды Абхазского, н.-и. института языка и истории, XVI, Sukhum, 1939.]

single informant, Maj. Husein Kumuz (q̇ə́məz), and in par-
ticular upon a corpus of material, of which a large proportion
was narrative, derived from approximately 100 hours of
listening.   The Abaza language has experienced a succession
of orthographies, based on Arabic, Roman, and Cyrillic
letters [1] ; but since no indigenous printed materials were
available to me, and my informant did not write the language,
it was necessary to evolve my own reading transcription, in
which the examples are here quoted.   The letters of this
transcription are basically Roman (with some deviations
from standard I.P.A. practice [2]), but certain prosodic con-
ventions are comparable with those of an orthography such
as that of Armenian.[3]   The transcription is closely related to
the phonological analysis, and has some regard for gram-
matical congruence.   A classification of the letters in terms
of their phonetic implications is given in Table 1 ; and corre-
spondences with the transcriptions of Bouda, Serdiuchenko,
and Lomtatidze are set out in Table 2.

For the subject of this paper the term ' Verbal Complex '
has been chosen in preference to other alternatives such as
' Verb ' or ' Verbal Piece ' ; it is true that a term theoretically
implies no more than it is stated to imply, but it may in
practice carry associations derived from more familiar lan-
guages.[4] ' Verb ' is apt to suggest a more limited and ' Verbal

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[P. K. Uslar, Абхазский язык (Этнография Кавказа, Вып. I) Tiflis, 1887.]

A. Schiefner, ' Ausführlicher Bericht über des Generals Baron Peter
von Uslar Abchasische Studien,' *Mém. de l'Acad. Imp. des Sciences de
St.-Pétersbourg*, VIIᵉ Série, T. VI, No. 12, 1863.

K. Lomtatidze, ა შხარული დიალექტი (Ашхарский диалект и его
место среди других Абхазско-абазинских диалектов), Tiflis, 1954 (with
Russian résumé).

[1] For Abkhaz the Georgian alphabet has also been employed : cf. A. H·
Kuipers, ' The North-West Caucasian Languages ' (*Analecta Slavica,*
Amsterdam, 1955), p. 197.

[2] Notably the use of θ and δ for [ts] and [dz], the writing of the apostrophe
indicating glottalization in subscript or superscript position according to the
letter-shape (e.g. ḳ, q̇), and the marking of main stress by an acute accent.

[3] Cf. *TPS* 1950, pp. 184 ff. ; *Arch. Ling.*, 3, p. 132.

[4] Cf. B. L. Whorf, *Lg.*, 21, p. 1.

TABLE 1

| | STOP | | | CONTINUANT | | | | | |
| | Voiceless | | Voiced | Fricative | | Liquid | Nasal | Semivowel | Vowel |
	Pulmonic [1]	Glottalic		Voiceless	Voiced				
Labial / Labio-dental	p	ṗ	b	(ə^w[xφ]) f̣ f̌			m	w	Close ə
Dental	t	ṭ	d	ɬ (lateral)	(lateral) ɮ	l [ɫ]	n		
Alveolar	θ [tŝ]	θ̣	δ [dẑ]	s	z	r			
Retroflex Pre-palatal (Affricate)	c cʸ cʷ	c̣ c̣ʸ c̣ʷ	ǰ ǰʸ ǰʷ	ʃ ʃʸ ʃʷ	ʒ ʒʸ ʒʷ				
Palatal				ç				y	
Velar	kʸ k kʷ	k̇ʸ k̇ k̇ʷ	gʸ g gʷ	xʸ ɕ[xɣ] x xʷ	ɣʸ ɣ				(4)
Uvular	qʸ q [3] qʷ	q̇ʸ q̇ q̇ʷ		χ χʷ	ʁʸ ʁʷ				
Pharyngal				ħ ħʷ	ʕ ʕʷ				
Glottal		ʔ		h hʷ					Open a

(1) Pulmonic stops have breathy release.
(2) For dialectal variation b/β and d/ƨ in final position in verbal complexes cf. Serdiuchenko, Об абазинских диалектах, p. 251.
(3) No example of qʸ was encountered; the same gap (as against ɟʸ) is found in the accounts of Bouda, Serdiuchenko, and Lomtatidze, as well as in Marr's account of Abkhaz.

(4) Approximate ranges of vowels:—
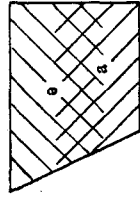
[For a few loan-words must be added the vowels e and o and the glottalic dental lateral affricate λ̣.]

TABLE 2

CORRESPONDENCES WITH OTHER TRANSCRIPTIONS

1. Bouda, op. cit.
2. Serdiuchenko, ' Japhetic ' (Об абазинских диалектах).
3.   ,,   Cyrillic (Словарные расхождения . . . ; Абазинские сказки).
4. Lomtatidze, აბაზური დიალექტი . . . .

	1	2	3	4		1	2	3	4
p	p	φ	п	ჶ	ʒ	ž	j	ж	ჟ
ṗ	ṗ	p	пI	ჷ	ʒ'	ž'	h	жь	ჟ
b	b	b	б	ბ	ʒ°	z°	j°	жв	ჟო
f	f	f	Ф	ჶ	k	k	q	к	ჟ
f̣	(f)	f̱	ФI	ჶ̣	k'	k'	q	кь	ჟ~
m	m	m	м	ჳ	k°	k°	q₀	кв	ჟო
w	ᵫ	w	у	ჳ	q	χ }*	q̇	хъ	ჟ
t	t	θ	т	ჳ	q°	χ° }	q̇₀	хъв	ჟო
ṭ	t̤	t	тI	ჳ	ḳ	k	k	кI	ჟ
d	d	d	д	ჳ	ḳ'	k̤'	k̦	кIь	ჟ~
ƛ	λ	ḥ	тл	ჳ	ḳ°	k̤°	k₀	кIв	ჟო
ḥ	l'	ļ	ль	ჳ~	q̇	q̇	k̤	къ	ჟ
l	l	l	л	ჳ	q̇'	q̇'	k̤̦	къь	ჟ~
n	n	n	н	ჳ	q̇°	q̇°	k̤₀	къв	ჟო
θ	c	θ̇	ц	ჳ	g	g	g }†	г	ჳ
θ̣	ç	t̤	пI	ჳ	g'	g'	g̦ }†	гь	ჳ~
ŝ	ʒ	d̤	дз	ჳ	g°	g°	g₀	гв	ჳო
s	s	s	с	ჳ	c̱	x	ҍ }‡		'ჳ~
z	z	z	з	ჳ	c̱°	x°	ҍ }‡		'ჳო
r	r	r	р	ჳ	x	q	q̇	х	ჳ
c	č' }*	θ̤	тш	ჳ	x'	x' }*	q̦̇	хь	ჳ~
c'	č }	θ̤̦	ч	ჳ	x°	q°	q̇₀ }†	хв	ჳო
c°	c°	θ̤°	чв	ჳ	ɣ	γ	ğ	гъ	ჳ
ḉ	č' }*	t̤	шI	ჳ	ɣ'	γ'	ğ̦	гъь	ჳ~
ḉ'	č }	t̤̦	чI	ჳ	ɣ°	γ°	ğ₀	гъв	ჳო
ḉ°	ç°	t̤°	чIв	ჳ	y	i̯	y	й	ჳ
ǰ	ž̌	d̤	дж	ჳ	h	ḥ	ҳ	хI	ჳ
ǰ'	ž̌'	d̤̦	джь	ჳ	h°	ḥ°	ҳ₀	хIв	ჳო
ǰ°	ʒ°	d̤°	джв	ჳ	ʕ	ʔ̣	γ	гI	ჳ
ʃ	š	ш	ш	ჳ	ʕ°	ẘ	ẉ	гIв	ჳო
ʃ'	š'	щ	щ	ჳ	ʔ	ʔ	'	ъ	ჳ
ʃ°	š°	ш°	шв	ჳ	ə	ə	ə	ы	ჳ
					a	a	a	а	ჳ
(ƛ)	(λ)	ḥ̱		ჳ	e/o	e/o	e/o	e/o	ჳ)

Piece ' a more loosely articulated structure than that with which we are here concerned.[1]

The terms ' Structure ' and ' System ' are used complementarily ; the principle to be stressed is that systems are established at specific places in structure,[2] and that this is the sole guarantee of their relevance. Such a principle contrasts with those varieties of ' structural ' linguistics which operate with overall, compendious systems divorced from place in structure.[3]

I

The study is concerned primarily with the pre-radical elements of the complex, and is still further limited by the exclusion of certain categories of complex. The criteria for these limitations may first be considered :—

A. Restriction to *main* (as opposed to *subordinate*) clauses :

(*a*) Defined syntagmatically and phonologically by falling clause-intonation (of which the principal exponent [4] is falling pitch on the last stressed syllable of the clause) : [5]

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[1] Cf. Dirr, *Einführung in das Studium der kaukasischen Sprachen*, p. 45 : ' Das Verbum, besser gesagt der Verbalausdruck, der Verbalkomplex, spielt im Abchasischen eine geradezu tyrannische Rolle ' ; G. Schmidt(†), ' Über Aufgaben und Methoden der Kaukasologie ' (*St. Or.*, Helsinki, xvii : 4, 1952), p. 11, ' Im Westen ist es der Satzteil, des alles auf sich bezieht . . .'

[2] Cf. *BSOAS*, xvi, p. 556, n. 2.

[3] Cf. Benveniste, *JPs.*, 51, 1954, p. 136 : ' Structure . . . peut signifier deux choses assez différentes. On entend par structure, particulièrement en Europe, l'arrangement d'un tout en parties et la solidarité démontrée entre les parties du tout qui se conditionnent mutuellement ; pour la plupart des linguistes américains, ce sera la répartition des éléments telles qu'on la constate et leur capacité d'association ou de substitution ' ; Firth, ' A Synopsis of Linguistic Theory ' (*Studies in Linguistic Analysis* : forthcoming special vol. of The Philological Society), § VII.

[4] For ' exponent ' cf. *BSOAS*, xvi, p. 558, n. 2.

[5] Preceding exponents are not here detailed, and are simply indicated by · · ·

e.g. (1) sθábʃʸta | spʃéb ' *I'll go and look* '

(2) yʃʃʷtaqéw | yhcʸpáb ' *We will do as you wish* '

(3) ancʷakʷá awása yalačʷáʃʸta | yʃréʒʷwaz | réthamada
Psátha dʒádgəld ' *As the gods were thus sitting together
drinking, their leader Psatha approached* '

(4) áthamada   awatkʷá-yhʷán | áčʷɛʷa   sana-áznaʃʸta |
Sosréą̊ʷo yyzyráwd ' *So saying, the leader handed the
horn full of wine to Sosruko* '

The main clause is generally final in the sentence ; where
this is not the case, it is the first clause with falling intonation
and the fall in pitch is higher than that of succeeding clauses :

e.g. (5) ɣrécʷhʷala anéy ámθa-wácʷhʷas | séčʸk̲ʷən ' *Blow this
fire with the bellows, my boy* '

(6) awéy-ák̲ʷab | haʃʸáyθba dʃáʔaw   ' *That's what our
youngest brother is like* '

(7) bɛʷnəfa-szréhazər | yxʸantámk̲ʷa | yʃʸardáʃʸta | taláyk̲
yszqáwʃdʃʸta ' *Get me some rations ready, not heavy,
but plenty, enough to last me for some time* '

Within the clause the verbal complex is final.

(*b*) Characterized paradigmatically and grammatically by the systems of suffixes occupying final place in the complex (not here detailed).
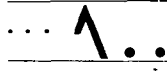
B. Exclusion of *interrogative* and *exclamatory* clauses :

(*a*) Defined syntagmatically and phonologically by rising-falling clause-intonation :

e.g. (8) **wán dáʔawma** ‘ *Is your mother present ?* ’

   (9) **lará dzph^wésw-da** ‘ *Whose wife is she ?* ’

   (10) **yzyzémc^ypawa-ya** ‘ *Why can't he do it ?* ’

   (11) **yzać^wbq̇^wəlj^yaʃ^yáq^wa-ya** ‘ *What a wonderful barrel it is !* ’

(*b*) Characterized paradigmatically and grammatically by the systems of suffixes occupying final place in the complex (not here detailed).[1]

C. Restriction to ‘ *endogeneous* ’ complexes, i.e. in which the first element of grammatical structure is a Pronoun of System 1 (P_1), to the exclusion of ‘ *exogeneous* ’ complexes, i.e. in which the first element is other than P_1 :

(*a*) Exogeneous complexes with more than one main stress :

e.g. (12) **alá-rbád** ‘ *They saw the dog* ’
   (13) **aqác^wak^wa-lbád** ‘ *She saw the men* ’

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[1] Note, however, the almost constant appearance of final -a in such forms.

Such examples are treated as verbal complexes on the grounds that, although **alá** and **aqác^{w}ak^{w}a** are identifiable as nominal forms, the first Pronoun (whose exponents are indicated by **r/1**) is a Pronoun of System 2 (P$_2$) ; the nominal form thus functions as a place-maker occupying a Place 1 in the verbal structure.[1]   Ex. 13 is to be contrasted with

(14) **aqáθa dlbád** ' *She saw the man* ',

where **dlbád** is an endogeneous complex complete in itself, with a P$_1$ whose exponents are indicated by **d-**.

In the exogeneous complex it is important to note that the nominal element is invariably of one particular concord-class, viz. that class which in other grammatical colligations is in concord with that term of the P$_1$ system whose exponents are indicable by **y** : thus, with the insertion of **waxč^{w}á** ' *to-day* ' :—

(15) **alá waxč^{w}á yrbád**   (16) **aqác^{w}ak^{w}a waxč^{w}á ylbád** [2]

(the semantic functions of this concord may be said to include ' plurality ' and ' non-humanity ').[3]

(*b*) Exogeneous complexes with one main stress : these are confined to indefinite [4] nominal forms in the above concord-category :

e.g. (17) **mc^y-sólθd** ' *I lost strength* '

(18) **c^{w}a-hxóyd** ' *We are cutting hay* '

(19) **aʃ^{y}c^{w}a-lómab** ' *She has brothers* '

(20) **c-sómab** ' *I have a horse* '

It should be emphasized that the exogeneous complex is excluded from the present study solely by reason of its lacking a P$_1$ element ; it is not excluded on the etymological

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[1] It would in fact be rather less futile to say that in Abaza a noun may ' stand for ' a pronoun in such cases than, as is traditionally said, that pronouns ' stand for ' nouns.

[2] Cf. also the occurrence of infinitive or relative verbal forms as place-makers in an exogeneous complex : e.g. **yazórwra-g^{y}rmdórd** ' *They didn't know what to do with it* ' ; **yhɫák^{y}z-hc^{y}pád** ' *We did what we could* ' (but **yʃʃ^{w}taqów yhc^{y}páb** ' *We will do as you wish* ').

[3] Where groups of nouns are involved, however, they may be dissociated from the verbal complex, which then has the endogeneous form (see e.g. ex. 86).

[4] i.e. without an article or possessive prefix.

grounds that it contains a ' noun ' ; in fact one must include in the *endogeneous* category a number of examples which are patently etymologizable as containing nominal elements. Thus in

(21) **dӡahnap̍ə́θaʃ^wad**   ' *He fell into our hands* '

one can hardly fail to identify the nominal **nap̍ə́** ' *hand* ' ; but structurally the complex is not distinguishable from e.g.

(22) **dӡahp̍ə́θaʃ^wad**   ' *He happened to meet us* ',

where there is no such evident etymology. And in

(23) **ysə́ʃ^ytaθad**   ' *It followed me* '

the identification of **ʃ^yta** as = ' *footstep* ' does not justify a structural distinction from e.g.

(24) **ysə́θhad**   ' *It bit me* '.[1]

On the other hand a distinction is to be drawn between e.g.

(25) **yqáypsald**   ' *He tossed it up* '—an admissible endogeneous complex in which the initial **y-** indicates a term in the P_1 system, and

(26) **yqá-yrɋ̍^wdə́d** ' *He cut his hair* '—where, apart from the double stress and certain junction phenomena,[2] the initial **y-** indicates a term which is not in the P_1 system.[3] Similar distinctions are observable between e.g.

(27) **drɋagə́lab** ' *He is their chief* ' [4]

and (28) **rapɋá dgə́lab** ' *He is their leader* '.

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[1] No account is taken at this point of the criteria for prefixed/unprefixed forms discussed on p. 162.

[2] See p. 150.

[3] Although **y-** appears (with different semantic and concordal functions) in both these particular examples, the initial system establishable for the complex exemplified in ex. 26 includes e.g. **l** = ' fem. sing. ', which is not the case with the initial system establishable for the complex exemplified in ex. 25 (see p. 153). One would in fact label the initial system represented in ex. 26 as ' Possessive ' ; it is of interest to note that this system is identical with the P_2 system (cf. Deeters, op. cit., p. 297, on Abkhaz ; Benveniste, *BSL*, 48, 1952, pp. 52 ff., on Indo-European ; A. Schmitt, *KZ*, 73, 1955, p. 32, on Eskimo) : for earlier discussions cf. Finck, *KZ*, 41, pp. 266 ff. ; Schuchardt, *Sb. d. Berl. Ak. d. W.*, 1921, pp. 651–62 = *Brevier*, pp. 300 ff. ; E. Lewy, *UJ*, 8, pp. 274 ff. Note the suggestive parallelism of exx. 22 and 24 with 21 and 23.

[4] Also **drwnaʃ^wac^ypáχ^wb** ' *He is their commander* ' (cf. **wnaʃ^wa** ' *decision, command* ', **c^ypa** ' *make* ', and **χ^w** ' agent ' suffix).

These restrictions isolate the endogeneous complex, which, on both phonological and grammatical grounds, might be considered as the verbal complex κατ᾽ἐξοχήν. *Phonologically*, it is characterized by a single main stress : the stress-placings are various, and there are occasional examples where minima or near-minimal distinctions are thereby rendered—e.g.

(29) ylzórɣʷyd ' *They are writing to her* ' : ylzróɣʷyd ' *She can make them run* '.

(30) ygʸszmȝʷéd ' *I couldn't get it to boil* ' : ygʸszómȝʷd ' *I couldn't drink it* '.[1]

(31) ycóɣʷb ' *They are horsemen* ' ; ycɣʷób ' *It's a fast horse* '.

Grammatically, the endogeneous complex is characterized by having a P_1 as its initial element.

The endogeneous complexes fall into two ' conjugations ' characterized by certain of their suffixes ; ·the following illustrate the principal distinctions as exemplified by the radicals θa ' *go* ' and aʔa ' *be present* ' :—

	Conjugation 1	Conjugation 2
	(32) dθáyd ' *He goes* '	dáʔab [2] ' *He is present* '
Neg.	(33) dgʸθáwm	Neg. dgʸáʔam
	(34) dθáwn ' *He was going* '	dáʔan ' *He was present* '
Neg.	(35) dgʸmθáwzd	Neg. dgʸáʔamzd [3]

The above forms all have a single pronominal element ; con-

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[1] On the other hand stress affords no distinction in e.g. ygʸyzósmȝʷd ' *I didn't boil it for him* ' OR ' *I declined his offer of a drink* '.

[2] Note also, however, the ' immediate future ' form dθáb ' *He's going* '. This can lead to grammatical ambiguity where the same radical element occurs in both conjugations—thus : sĉʷáb ' *I'll sit down* ' (Pres. sĉʷáyd, Impf. sĉʷáwn, ' *I am/was (in the act of) sitting down* ') OR ' *I am seated* ' (Impf. sĉʷán ' *I was seated* ').

[3] Cf. also the interrogative forms :

(a) dgʸmθáwma ' *Doesn't he go ?* '   dgʸáʔamma ' *Isn't he present ?* ' (but Pos. dθáwma : dáʔawma).

(b) yθawá-da ' *Who goes ?* '   yáʔaw-da ' *Who is present ?* '

trasting forms with two pronouns would be provided by e.g.
ga ' *carry* ' and **əma** ' *have* ' [1] :

    (36) **ylgáyd** ' *She carries it* '   **ylə́mab** ' *She has it* ', etc.

In a large proportion of examples of Conjugation 2 the
radical element is identifiable with an element appearing
elsewhere in nominal forms : e.g.[2]

    (37) **dnártb** ' *He is a Nart* ' ;   (38) **yxˠtáb** ' *It is cold* ' ;

    (39) **ámʃ-xċʷáċʷab** ' *The weather is cool* ' ; (40) **wzáɕʷab**
      ' *You are right* ' ;

    (41) **dċˠ k̞ʷənbzəyՑ Տ áb** ' *He's a very good boy* ' ;

    (42) **snaspóncab** ' *I'm out of luck* ' ; (43) **daykʷádab**
      ' *He has no trousers* ' ;

    (44) **ysċáb** ' *It's in my mouth* ' (cf. **aċʷá áθla yaċáb** ' *The
      apple is on the tree* ').

Forms of this second conjugation are arbitrarily excluded
from consideration in the descriptions which follow. The study
is thereby limited to complexes containing radical elements
which are for the most part peculiar to the verbal complexes,
and not common to both verbal and nominal forms. Also
excluded are forms of the first conjugation derived from
second-conjugational radicals by the ' Inceptive ' suffix
indicated by **xa** [3] : e.g.

    (45) **yxˠtaxáyd** ' *It is getting cold* ' (cf. ex. 38) ;

    (46) **ámʃ-xċʷáċʷaxad** ' *The weather grew cool* ' (cf. ex. 39) ;

    (47) **ysċʷxád** ' *It came into my possession* ' (cf. n. 1 below) ;

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[1] Other common examples of Conjugation 2 :

(one pronoun) **hrazə́b** ' *We agree* ' **dgólab** ; ' *He's standing up* ' ; **dʃˠtáb**
    ' *He's lying down* ' ;

(two pronouns) **ysk̞nə́b** ' *It's sticking to me* ' ; **ystaqə́b** ' *I need it* ' ;
ysċʷə́b ' *It belongs to me* ' (cf. **yzċʷə́ yyċʷə́b** ' *It belongs to whom it
belongs* ').

[2] Cf. also the interrogative form **ywdértw-zaċʷə́ya** ' *What's the matter
with you ?* '

[3] Exogeneous complexes involving second-conjugational radicals and
their derivatives may attain considerable extension—e.g. **aréy‿ynθrá‿aqá-
aχʷə́cʷgˠakʷa‿rθə́qʷaxarɣad** ' *May the beginning of this man's life
be the end of the wicked* '.

(48) **ydówxad** ' *It grew big* ',[1]

and by the ' Causative ' prefix indicated by **r** :   e.g.

(49) **ysrxʃʷáʃʷad** ' *I cooled it* ' (beside **yxʃʷáʃʷab** ' *It is cool* ', **yxʃʷáʃʷaxad** ' *It got cool* ') ;

(50) **dsrósasd** ' *I entertained him* ' (beside **dsasób** ' *He is a guest* ').

Whereas, however, the inceptive form is comparatively rare with first-conjugational radicals and common with second-conjugational radicals, the situation is the reverse in the case of the causative form.

It is to be noted that Abaza displays no such clear distinction as that of Noun and Verb in most Indo-European languages. Thus **hrʷa** might be translated as ' *grass* ' in the sentence **hʷra-rxóyd** ' *They are cutting grass* ' ; but it is also the infinitive form of the radical which appears in the sentence **áraxʷ-hʷóyd** ' *The cattle are grazing* ' or **áraxʷ-yrhʷóyd** ' *He is grazing the cattle* ' :   cf. also **yócʸ** ' *robber* ' :   **dsáyɣecʸd** ' *He robbed me* ' :   **yscʷóyɣecʸd** ' *He stole it from me* '.

The most that one can say is that certain radicals which appear in nominal and in second-conjugational forms do *not* appear in first-conjugational forms except with the causative prefix or inceptive suffix—it is such radicals that are here excluded ; and that the radicals which *do* appear in first-conjugational forms do not generally appear in nominal or in second-conjugational forms.[2]   A certain translational correspondence may then be observed between these two classes of radical and the Nouns and Verbs of the Indo-European languages.

In the endogeneous complex the first element of grammatical structure is a pronoun of system 1.   In appropriate sentences the pronouns of the verbal complex may be carriers of concord relating them to preceding nominals ;   on the

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[1] **ypxáyd** ' *It is warm* ', however, cannot be excluded, since the absence of a form *ypób and the existence of a form **ypxaxáyd** ' *It is getting warm* ' indicate that it does not contain a suffixal **xa**.   Nor can **ysógxayd** ' *I lack it* ' be excluded, in the absence of a radical *əg.

[2] Cf. Kuipers, op. cit., p. 201.

other hand the sentence may and in conversation often does consist only of the verbal complex. The complex-isolate sentence of Abaza is less exceptional than the word-isolate sentence of a language like English. This is the more understandable when one observes that in Abaza there is not only no nominal inflexion but also little in the way of pre- or postpositions ; the typical Abaza sentence simply lists the nominals in the function of ' topics ', and the semantic relations between them are functions of the verbal complex. This peculiarity may be illustrated in an extreme form by an (artificially elicited) sentence such as :

> *1   2   3   4   3 1 2 4*
> (51) alə́gaʒʷ áč̓ʸk̫ʷənc̫ʷak̫ʷa llá aphʷə́spa ygʸyzdmlrə́txd
>   ' *The old man couldn't make the boys give the girl her dog back* ' ;

each nominal form is in concord with the similarly numbered pronominal element in the verbal complex, and it is only *via* this complex that the semantic relations between the ' topics ' become explicit.

II

PHONOLOGICAL STRUCTURE OF THE COMPLEX

The central problem is that of the vowel-systems. Between any two consonantal articulations (as also initially and finally in the complex) two types of vocalic articulation may be noticed—*open* and *close*. These are relative terms, and what is open in one consonantal environment may be as close as or even closer than the close articulation in another environment. In a pharyngal environment (preceding a pharyngal articulation) the open type is exemplified by **yráhhʷb**, where the vowel-quality in the stressed syllable is statable in narrow I.P.A. terms as [ɑ], and the close type by **yszrə́hazər**, with vowel-quality [ɛ] ; but in a palatal environment (preceding a palatal semivowel) the open type is exemplified by **yráyhʷd**, where the vowel-quality in the stressed syllable is statable as [e],

and the close type by **yréytd,** with vowel-quality [i]. So that
the open vocalic articulation of the latter environment ([e])
is closer than the close vocalic articulation of the former
([ɛ]) ; similarly, in a labiovelar environment, **yráwhᵂd** [o] :
yrówtd [u].

In the above examples **əy/əw** in fact represent [iː]/[uː] ;
the justification for such an interpretation of these ' long
vowels ' [1] lies in the requirements of grammatical congruence ;
the nature of this will be clear from a comparison of the
following paradigms :—

(52) [ɪb] **yʃʸʈə́bxd** ' *You* (f.) *lifted it* ' : **dbə́kᵂSd** ' *You* (f.)
                                                               ruined him '

   [uː] **yʃʸʈə́wxd** ' *You* (m.) *lifted it* ' : **dwə́kᵂSd** ' *You* (m.)
                                                               ruined him '

   [ɪl] **yʃʸʈə́lxd** ' *She lifted it* ' :   **dlə́kᵂSd** ' *She ruined
                                                               him* '

   [iː] **yʃʸʈə́yxd** ' *He lifted it* ' :   **dyə́kᵂSd** ' *He ruined
                                                               him* '

A further variation may be noticed between front and back
vocalic articulation—more particularly in connexion with
closeness ; thus in the stressed syllables of the following
paradigm (' *I/You* (m.)/*You* (f.)/*He/We/You* (pl.) *did not
succeed* ') the vowel-quality in each case is as indicated against
the example :—

(53)   **ygʸsə́damhᵂd**   [ɪ]
                        ygʸwə́damhᵂd   [u]
                        ygʸbə́damhᵂd   [ɨ]
                        ygʸyə́damhᵂd   [i]
                        ygʸhə́damhᵂd   [ʌ]
                        ygʸʃᵂə́damhᵂd   [y]

Such variation of vowel-quality is predictable from the con-

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[1] Cf. Serdiuchenko, ' Об абазинских диалектах ', p. 246 ; J. C.
Catford, ' ðə kabaːdiən laŋgwidʒ,' *Le Maître Phonétique*, 1942, pp. 15 ff. ;
Trubetzkoy, *Quelques remarques sur le livre de M. Dumézil* ' *Études Compara-
tives sur les Langues Caucasiennes du Nord-Ouest* ', pp. 3, 8.

sonantal environment.[1]   Where the vocalic variation is
associated with a similar consonantal variation the possibility
of a prosodic treatment inevitably suggests itself : thus in

   (54) yyʃ'ɵd ' *He killed it* ' [i]
   (55) yʃʷɵd ' *It froze* '   [y]
   (56) yʃɵd ' *It fermented* '   [ɪ]

it might be possible to establish $y/w/{}^{'}x$ ' as syllabic properties,
having exponents coarticulated with both consonantal and
vocalic articulations. There are, however, many cases where
the consonantal sequences are such that a y, w or x feature of a
consonantal articulation is not associated with any notable
further extension.[2]

From the data thus far considered it is clear that in the
establishment of a vowel-*system* only two terms are required,
with the exponents *open* and *close* (symbolized by a and ə).
But this is only half (or rather twice) the story. In the endo-
geneous complex there is only one main stress ; and in arriving
at a two-vowel system only the main-stressed syllables have
been considered. In other positions one does in fact notice
similar vocalic articulations to those of the main-stressed
syllable—viz. open and close. But in the case of the close
articulations it is found that their *presence or absence* (and
not simply their quality) is there determined by their con-
sonantal environment ; so that they may be considered simply
as vocalic transitions between two consonantal articulations.[3]
Once the conditions for these transitions have been stated,
there is no case for setting up a ' close ' vowel term in such

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[1] Of the rules governing such variation the most general is concerned
with the palatalized and labialized consonantal articulations (incl. the two
semivowels) :   immediately contiguous close vocalic articulations are
respectively front unrounded and back rounded—except in the case of a
labialized prepalatal articulation, after which the vocalic articulation is front
rounded. In the case of the ' unmarked ' consonantal articulations, the
close vowel-qualities vary progressively between [ɪ] (after dental and alveolar
articulations) and [ʌ] (after pharyngal articulations). Cf. Catford, loc. cit.

[2] Such sequences may be exemplified by the exclamatory form
dzaċʷċʸkʷ əncʷgʸáya ' *What a bad boy he is !* '

[3] Cf. *TPS*, 1950, pp. 184 ff. (on Armenian).

positions.[1]   These conditions are highly complex, and a
comprehensive statement has yet to be evolved ; the most
widely applicable is the ' two-consonant rule ', which must
however be understood as subject to restriction by other
conflicting rules (concerned in particular with the semi-
vocalic, liquid and nasal articulations) ; the rule is statable
as follows :—

> Counting the consonantal articulations back from the
> end of the complex, or from any vocalic articulation bearing
> main or secondary stress, there is a secondarily stressed
> vocalic transition between the second and third consonantal
> articulations.

e.g. (with points indicating the secondarily stressed vocalic
transitions).

(57) **dgʸ.dz.mréθ.sd** ' *They couldn't shift him* '

There is also observable an unstressed vocalic transition
between the first two consonantal articulations of this complex ;
such transitions are subject to less general rules than the
secondarily stressed transitions.

In the absence of a complete statement of transitional
conditions, the following interim principle is establishable :
Given a particular form containing a close vocalic articulation
carrying other than main stress, no other form differs minimally
from it by the absence of such an articulation ; and *vice
versa.*

From these considerations it follows that close vocalic
articulations in other than the main stressed syllable are to be
treated as prosodic (' anaptyctic ') and not as phonematic ;
so that in such syllables only a one-term vowel-system is
establishable, having *openness* as the exponent of its single
term. It remains to mention one exception to this statement :

If any term whatever of a verbal paradigm includes a
main-stressed close vocalic articulation, as non-final amongst
the exponents of any grammatical element of the complex,[2]

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[1] Cf. Kuipers, op. cit., p. 198 and p. 206, n. 11.

[2] Thus a form such as **drʃʸéd** ' *They killed him* ', whose radical exponents
are indicated by **ʃʸə**, is not relevant (cf. **dgʸrzémʃʸd** ' *They couldn't kill
him* ').

then that vocalic articulation is found even in those terms of
the paradigm where the main stress is elsewhere : thus

(58) **dyə́sd** ' *He hit him* ' : **dyáyəsd** ' *He fought/quarrelled
with him* '

(59) **yə́cʸra** ' *to rob* ' : **dsáyɣəcʸd** ' *He robbed me* '

Such cases are particularly common in the interrogative
forms.[1] Where the vocalic articulation is thus not necessarily
predictable, it is phonologically essential (and conducive to
grammatical congruence) to establish a ' close ' vowel term,
and so a two-term system identical with that of main-stressed
syllables, in other than the main-stressed syllable of the
complex[2] ; such vowels always carry a secondary stress.

III

JUNCTION

Grammatical considerations have already been introduced
into the phonological statement, by the references to gram-
matical paradigms. The paradigms were only paradigms
because one identified e.g. stressed and unstressed [əs] as
exponents of the same grammatical unit. Before proceeding
to discuss the grammatical structure in detail, one may
consider at this point certain *junctional* features, which
have one foot in phonology and one in grammar. This
necessitates some preliminary remarks on the matter of
' junction ' in general.

For a certain language one might establish a word-category
' Verb ', having a structure Root (R)—Tense/Aspect (t)—
Number (n)—Person (p). A particular exemplification of this

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[1] e.g. **danbáyəs** ' *When did he hit him ?* ' (contrast **dyʃʸə́d** ' *He killed
him* ' ; **danbáyʃʸ** ' *When did he kill him ?* ') ; **dqə́sd** ' *He crossed over* ' :
danbáqəs ' *When did he cross over ?* ' (contrast **dpʃə́d** ' *He looked* ' : **danbápʃ**
' *When did he look ?* '). Cf. **danbáʃʷəθl** ' *When did he join you ?* ' beside
danʃʷə́θlz yanbák̡ʷw ' *When was it that he joined you ?* '

[2] The fact that in a given example the close vowel articulation may in
any case be predictable from the consonantal environment is irrelevant :
cf. **dgə́ld** ' *He got up* ' : interr. **danbágəl** beside **yblə́d** ' *It burnt* ' : interr.
yanbáb.l (with vocalic transition between the last two consonantal
articulations).

category might then have a structure $R_{133}\text{-}t_3\text{-}n_1\text{-}p_2$; phonic exponents could be stated for any such structure as a whole, and no question of junction between the elements of the structure would arise. But for purposes of e.g. lexical entry it may be desirable to generalize regarding the exponents of individual elements of the structure, e.g. of R_{133}. In many languages such exponents may vary considerably in different environments ; they may nevertheless, and generally do, have something in common. One may then abstract what is common, state this as constituting the exponents of R_{133}, and cover the differences by a set of junctional (including ' allomorphic ' and ' morphophonemic ') statements. The ' junction ' concept results from the requirements of such generalization.

It frequently occurs that an appropriate ' bit ' of the corresponding phonological statement (or of the orthography) is used as a label for the grammatical unit in question [1]—thus in Sanskrit R_x might be referred to as ' the root *sad-* ', the label being derived from the phonological or orthographic statement of forms such as *asadat*. The price of using such labels is constant vigilance ; it is possible to forget that junctional (' *sandhi* ') statements of the traditional kind, relating ' *sad-* ' to its various exemplifications (e.g. in *satsyati*, *asīṣadat*, *sasāda*, *seḍur*, *sīdati*), arise only from the attempt to give phonological shape to a grammatical unit.[2] And to say that in certain environments ' the root *sad-* ' BECOMES something else is a misleading figure of speech that is better avoided.[3] In many instances, e.g. the *cases* of Latin, the impossibility of abstracting their exponents from those of *number* and *gender* precludes any attempt at giving them phonological labels.[4]

These remarks have referred to elements of word-structure ;

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[1] Cf. Bazell, *Linguistic Form* (Istanbul, 1953), p. 52 ; Nida, *Morphology*, p. 165.

[2] Cf. W. S. Allen, ' Zero and Pāṇini,' *Chatterji Jubilee Vol.* (*IL*, 16, 1955), pp. 106 ff. ; Bazell, op. cit., pp. 8, 51.

[3] Cf. Bazell, op. cit., p. 54.

[4] Cf. Bazell, op. cit., p. 9 ; *Word*, 8, 1952, p. 36.

but they also apply in principle to words as elements of sentence-structure. In that case, however, the problems of junction are rather less formidable, in so far as the ' word ' tends to be both a grammatical and a phonological abstraction, wherein the criteria of both analyses to some extent coincide.[1]

When one speaks, therefore, of the junction of grammatical elements, these reservations are to be borne in mind. At the same time it is to be recognized that some form of junction concept is essential to any generalized ' epistemic correlation ' [2] between grammatical statement and phonic data ; that where the phonological analysis permits of alternatives, that alternative is to be chosen which is most congruent with the grammatical analysis [3] ; and that important correspondences may be observed between phonology and grammar, in so far as different phonological systems and different junctions may be required for the exponents of different grammatical categories [4] —but the *relation* between them, in the present writer's view, is an *indirect* one *via* the phonic data.[5] Thus :—

Phonological . . . . *Grammatical*   *Grammatical*
    statement   *statement*   *statement*

                                                        AND NOT   *Phonological*
                                                                        statement

            Phonic   *Phonic*
            data   *data*

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[1] Cf. Allen, op. cit., p. 108 ; ' Aspiration in the Hāṛautī Nominal ' (*Studies in Linguistic Analysis*), § 11 ; Ullmann, *The Principles of Semantics*, pp. 47 ff.

[2] Cf. Northrop, *The Logic of the Sciences and the Humanities*, Ch. VII.

[3] As e.g. on p. 140 above.

[4] Cf. M. Cohen, ' Catégories de mots et phonologie,' *TCLP*, VIII, pp. 36 ff., and refs.   [5] For note see p. 144.

Some illustrations of junctional features in Abaza may now be considered.

A. Of the following four paradigms, nos. (i) and (ii) are one-pronoun complexes, and (iii) and (iv) are two-pronoun complexes ; thus in (i) and (ii) the immediately pre-radical element is a P_1 and in (iii) and (iv) a P_2. Against each example is given a phonetic indication of the exponents of the immediately pre-radical pronoun :—

(60)   (i) pʃə   (ii) ɣᵛə   (iii) xə   (iv) ba

spʃód	[s]*	sɣᵛód	[s]*	ysxód	[s]*	ysbád	[z]*
wpʃód	[w]	wɣᵛód	[w]	ywxód	[w]	ywbád	[w]
bpʃód	[b]	bɣᵛód	[b]	ybxód	[b]	ybbád	[b]
dpʃód	[d]	dɣᵛód	[d]				
ypʃód	[j]	yɣᵛód	[j]	yyxód	[j]	yybád	[j]
				ylxód	[l]	ylbád	[l]
				yaxód	[a]	yabád	[a]
hpʃód	[ħ]*	hɣᵛód	[ħ]*	yhxód	[ħ]*	yhbád	[ɛ]*
ʃʷpʃód	[ʃʷ]*	ʃʷɣᵛód	[ʃʷ]*	yʃʷxód	[ʃʷ]*	yʃʷbád	[ʒʷ]*
				yrxód	[r]	yrbád	[r]

If one compares the terms marked * in each paradigm, it will be seen that

(a) the pronominal exponents include friction ;

(b) in paradigms (i), (ii) and (iii) they are voiceless, but in (iv) voiced ;

(c) the voicing correlates with a voiced initial of the radical exponents ([b]-) ;

(d) notwithstanding the voiced initial of the radical exponents in (ii) ([ɣᵛ]-), the preceding pronominal exponents are *not* voiced.[1]

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[5] For a recognition of this as an alternative see Z. Harris, *Methods in Structural Linguistics*, pp. 195 ff. Cf. also Arvo Sotavalta, 'Die Phonetik und ihre Beziehungen zu den Grenzwissenschaften,' *Ann. Acad. Sc. Fenn.*, B XXXI, 3.

[1] Note the consequent difference in this respect between an endogeneous complex of the type exemplified in hpnó sgáx ' *Carry me home !* ' where s, as a P_1 = [s] (cf. p. 153 n.), and aɣʷó-sgád ' *I carried the plank* ', where s, as a P_2 = [z]. Cf. sjʷjʷád ' *I did the washing* ' (s = [s]) : acɛʷóca-sjʷjʷád ' *I washed the clothes* ' (s = [z]).

From this it follows that the voicing in junction with a voiced radical initial is applicable to the exponents of a P_2 but not of a P_1. Various further observations may be made :—

(e) The voicing process is applicable to P_2 even in the negative form, where one of the exponents of Negation (indicated by **m**) intervenes between the pronominal and radical exponents, thus :

(61) **dgʸsmbád** ‘ *I did not see him* ’, where **s** = [z] ;
   dgʸhmbád ‘ *We*   ,,   ,,   ,,   **ħ** = [ɣ] ;
   dgʸʃʷmbád ‘ *You*   ,,   ,,   ,,   **ʃʷ** = [ʒʷ].

It is not, however, applicable if any other exponent intervenes, e.g. that of the Potential, indicated by **z** :

(62) **dszóbad** ‘ *I could see him* ’, where **s** = [s],
or of the Causative, indicated by **r** :

(63) **ylhrbád** ‘ *We showed it to her* ’, where **h** = [ħ].

(f) The voicing process is applicable only when the radical initial is ‘ distinctively ’ voiced, i.e. when it is minimally distinguished from another articulation by voice [1] : it is thus not applicable before radical initials of liquid,[2] nasal, or vocalic type,[3]
e.g. (64) **dsnq̇ʷáqʷd** ‘ *He challenged me* ’, where **s** = [s].

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[1] Cf. Martinet, *Économie des Changements Phonétiques*, pp. 189, 232 f. ; *BSL*, 42 (2), pp. 107 f.

[2] It is true that there is a voiceless (fricative) lateral ɬ ; but this is matched by the voiced fricative ɮ (although no examples of this were encountered as root-initials) ; there is thus no voicing before **l** (e.g. **yslagád,** ‘ *I ground it* ’).

[3] One might expect the semivocalic articulations to be included here. Only one example occurred in which a P_2 exponent immediately preceded a semivocalic radical initial, and in that case it was in fact voiced—**ywzóswra-ya** ‘ *What am I to do with you ?* ’ where **s** = [z] before the radical [**w**] (cf. Schiefner, op. cit., p. 17). If further examples confirmed this as a general rule, it would suggest an interpretation of **ɡʷ** [xφ]/**ɡ**⁽ʸ⁾ [ç] as **ẙ/ẘ,** forming ‘ correlative pairs ’ with **y/w** (cf. Table 1) ; it may here be remarked that in my informant’s articulation of **ɡʷ**[xφ] the velar friction was so slight as to be at times inaudible to me.

(g) The voicing is applicable only in junction with *radical* initials.[1] Thus in

(65) **ysg^{w}apxáyd** ' *I like it* '
or (66) **yszqáyd** ' *It is enough for me* ' } where **s** = [s],

the non-voicing of the exponents of the P$_2$ provides a criterion for denying radical exponency to the data indicated by **g^w** and **z** respectively, and for considering them as exponents of prefixal elements (whether ' preverbs ' or ' postpositions ')[2].

(h) It is noteworthy that, whilst the P$_2$ system in the verbal complex is identical with that of the possessive prefixes in the nominal,[3] the voicing in junction is not a feature of the latter.[4]

B. Of the following partial paradigms, (i) is a two-pronoun non-causative complex, (ii) a two-pronoun causative complex (causative exponents indicated by **r**), and (iii) the three-pronoun causative complex containing the same root as (i) :—

(67)   (i) **ba**   (ii) **rθa**
    hlbád ' *She saw us* '   **hlrθád** ' *She made us go/took us* '
    hrbád ' *They* ,,   **hdrθád** ' *They* ,,   ,,   ,,

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[1] In a three-pronoun complex of which the radical exponents have as initial a close vocalic articulation (ə), the P$_3$ exponents appear between it and the following consonantal articulation (cf. p. 156 n.) ; and if such consonantal articulation is distinctively voiced (although it is not a radical initial) the voicing process is applicable to the pronominal exponents ; thus in **ylzə́sȝ^{w}d** ' *I drank it for her* ' (' *I accepted her offer of a drink* '), Neg. **yg^{y}lzə́smȝ^{w}d**, **s** = [z] before the consonantal [ȝ^w] (whilst in **ysə́ȝ^{w}d** ' *I drank it* ' **s** = [s] before the vocalic radical initial).

[2] Cf. p. 163. For the **z** of **yszqáyd** one may perhaps compare such forms as **ylzə́yɛ^{w}d** ' *He wrote to her* ', **yszə́yc^{y}pad** ' *He did it for me* ', **dszg^{w}ə́ȝ^{w}ḳd** ' *He's angry with me* ', **dszy^{y}ə́d** ' *He grumbled about me* '.

[3] See p. 135, n. 3.

[4] Which is etymologically suggestive with regard to forms like **ysg^{w}apxáyd** (cf. also **yɣasg^{w}álaʃ^{w}ayd** ' *I remember it* ' with **s** = [s]) in view of the nominal **g^{w}ə́** ' *heart, mind* ' (possessive **sg^{w}ə́** etc.). Note also the exogeneous **g^w-sə́ltd** ' *She understood me* '. Cf. Dumézil, *Études Comparatives sur les Langues Caucasiennes du Nord-Ouest*, p. 145 ; Marr, Словарь, s.v. ' a-goə̀ ' ; Kuipers, op. cit., p. 200.

(iii) **rba**

yhlrbád ' *She showed us it* '

yhdrbád ' *They* ,, ,,

Cf. also :

(68) **déS d** ' *He has disappeared* ' : **ddréS d** ' *They have liquidated him/He has been liquidated* ' (beside **drʃᵞéd** ' *They have killed him* ').

From these examples it will be seen that the ' 3rd person plural human ' pronoun has exponents indicated as **r** and **d** respectively in non-causative and causative forms. Whilst it is tempting, in view of the causative exponents, to see here a straightforward case of ' dissimilation ', it is to be noted that the alternation applies only in the case of pronouns [1]; thus corresponding to the non-causative

(69) **yrátd** ' *It melted* '

the causative form (' *I melted it* ') is

(70) **ysrératd** ;

the difference in this respect between the pronominal and causative exponents is illustrated in the single form

(71) **ydrératd** ' *They melted it* '.

Moreover the alternation is applicable whatever other data may intervene between the pronominal and causative exponents ; thus :—

(72) **dgᵞdmrθád** ' *They didn't take him* ' (with intervening Negative exponents, indicated by **m**) ;

(73) **ydsrbád** ' *I showed them it* ' (with intervening P₃ exponents, indicated by **s**) ;

(74) **yddrbád** ' *They showed them it* ' (with intervening P₃ exponents, themselves in the alternant form indicated by **d**) ;

(75) **wdzórθayd** ' *They can take you* ' (with intervening Potential exponents, indicated by **zə**) ;

(76) **ygᵞdszmrdórd** ' *I couldn't let them know* ' (with intervening P₃, Potential and Negative exponents).

---

[1] Note also that whereas all other ' disjunctive ' pronouns have the same initial as the corresponding P₂ of the verbal complex (**sará** ' *I* ', **lará** ' *she* ', etc.), the ' 3 pl. hum. ' has the form **dará**, and not *****rará**.

The alternation is only fully applicable in the case of Causative forms ; thus in

(77) yrárh^{w}d ' *They told them* '

the alternation is not found before the P$_3$ exponents indicated by the second **r**. A similar alternation was however found in immediate contiguity with radical initial exponents indicated by **r**, as in

(78) hdrq^{w}óxd ' *They tested us* ' ;

(79) ydrpápad ' *They hammered it* ',

which there seems no very cogent reason for interpreting as causative forms.[1]

It will be noted that the present transcription is non-phonemic in its representation of the voiced/voiceless alternants (writing **s, h, ʃ^w** in all cases—cf. the -*s* plurals of English orthography), whereas it does distinguish as **r/d** the alternants in the non-causative/causative forms. One reason for not indicating the distinction in the former case is a practical one, viz. the resultant overburdening of the letter **z**, which already indicates exponents of diverse grammatical units, whose functions are distinguishable only by place : in a phrase such as **yzzsʒ^{w}óz aqáθa** ' *the man to whom I wrote* ', or **yzwzzósmʒ^{w}wzya** ' *Why couldn't I write to you* ? ' the further indication of the voicing of the 1st person pronominal exponents by **z** (instead of **s**) would be unnecessarily confusing to the non-native reader.

C. In the asterisked items of the following partial paradigms, the junction of an element having in other colligations a final open vocalic exponent (indicated by **a**) with an element having an initial semivocalic exponent (indicated by **y/w**), is rendered by a diphthongal articulation of the type [ei]/[ou] respectively:—

(80)   (i)

yrábh^{w}d ' *You* (f.) *told them* '   [ab]

yráwh^{w}d   ,, (m.)   ,,   [ou]*

yrálh^{w}d ' *She*   ,,   [al]

yráyh^{w}d ' *He*   ,,   [ei]*

---

[1] In **dʒadróyd** ' *He was born* ' (lit. ' *they bore him* ') it might be possible to identify the form -**rəy**- as a causative of the root found in ex. 149.

(ii)

yqábʒ'd/ytábʒ'd ' *You* (f.) *raised/lowered it* '   [ab]

yqáwʒ'd/ytáwʒ'd   ,, (m.)   ,,   ,,   [ou]*

yqálʒ'd/ytálʒ'd   ' *She*   ,,   ,,   [al]

yqáyʒ'd/ytáyʒ'd   ' *He*   ,,   ,,   [ei]*

(iii)

yabrbád ' *You* (f.) *showed it to it* '   [ab]

yawrbád   ,, (m.)   ,,   ,,   [ou]*

yalrbád ' *She*   ,,   ,,   [al]

yayrbád ' *He*   ,,   ,,   [ei]*

But in the following the junction is rendered by a close vocalic (monophthongal) articulation of the type [iː]/[uː] :—

(81)   (i)   (ii)

yatábbaxd ' *You* (f.) *saw it again* ' [ab]   **ysbád** ' *I saw it* ' [ad]

yatáwbaxd   ,, (m.)   ,,   [uː]   **ysbáwn** ' *I used*

yatálbaxd ' *She*   ,,   [al]   *to see it* ' [uː]

yatáybaxd ' *He*   ,,   [iː]   **ysbáyd** ' *I see it* '   [iː]

This pattern is followed also in interrogative forms such as **danbáyba** ' *When did he see him ?* ', **dabáwba** ' *Where did you see him ?* ', **yʃpáydər** ' *How did he know ?* ', and in word-junctions, e.g. **sará ysčʷób** ' *It belongs to me* '.[1]

The two types of junction [2] correlate with grammatical colligations as follows :—

Diphthongal junction

(a) Pronoun preceded by Prefix (whether ' postpositional ' as in ex. 80 (i)—**a**, or ' preverbal ' as in ex. 80 (ii)—**qa/ta**).

(b) Pronoun preceded by Pronoun (' 3rd pers. nonhum. ' of P_2 system, as in ex. 80 (iii)—**a**).

Monophthongal junction

(a) Pronoun in ' Repetitive ' (and Interrogative) complex, where partial exponents of the latter precede those of the pronoun (cf. p. 160 below), as in ex. 81 (i)—**ata...x**.

(b) Root + Tense/Aspect suffix, as in ex. 81 (ii)—**ba**.

[1] And with the enclitic **-y**, ' *-que* ': e.g. **ycó-y yáhʷa-y** ' *equus-que eius gladius-que* '.

[2] Cf. also Serdiuchenko, Об абазинских диалектах, pp. 245 f. ; Lomtatidze, აᲘბაᲠᲣᲚᲘ ᲓᲘაᲚᲔᲥᲢᲘ, pp. 30 ff.

Within the exponents of a single grammatical element the transcriptions **ay/aw** indicate [ei]/[ou] respectively,[1] as in

(82) **yszyráwd** ' *He handed it to me* ' (radical)

(83) **dsáyhʷahʷd** ' *He greeted me* ' (' postpositional ')

(84) **dáwsʃʸtd** ' *I freed him* ' (' preverbal ')

IV

GRAMMATICAL STRUCTURE OF THE COMPLEX

The endogeneous complex has been so defined as to include in its grammatical structure a P_1 element (see p. 133) ; excluded from consideration, therefore, are examples such as

(85) **ahʷa-rzéscʸpab** ' *I will make them a sword* ' (where **r** indicates a P_2 exponent)

or (86) **ya θlá ya haqʷó yapéθaʃʷarkʷən, awátgʸy-pnaq̇wán** ' *Even if it encountered tree or stone, it cut through them* ' (where **na** can only indicate a P_3 exponent)

or (87) **aqáċʷakʷa-nxáyd** ' *The men are working* ' (where there is no P exponent).

The verbal portions of these exogeneous complexes could never form a sentence in isolation, whereas the endogeneous complex can.

The minimal endogeneous complex contains only one pronoun, which by definition must therefore be of the P_1 system :

e.g. (88) **yán lpnó dθáwn** ' *He was going to his mother's house* '

(89) **aphʷós dχaċʷád** ' *The woman sat up* '

(90) **yχasóyd** ' *It is snowing* '.

In sentences containing a noun (including a disjunct pronoun) there is concord between it and the pronoun of the verbal complex :

e.g. (91) **aqáθa dθáwʃd** ' *The man will go* '

(92) **yará dθád** ' *He's gone* '

(93) **sará sθábʃʸta spʃób** ' *I'll go and look* '

---

[1] But in absolute initial position [ai]/[au]—e.g. **ayzzará** ' *to meet* ' (beside **ráyzzara** ' *their meeting* ' with [ei]) ; **áwra** ' *length* ' (beside **ráwra** ' *to extend, hand* ' with [ou]).

(94) **acó lasó yéɣʷyd** ' *The horse runs fast* '

(95) **dará hpnó yɣáywan** ' *They used to come to our house* '.

The P_1 system is of seven terms ; they may be listed as follows by (*a*) ' exponential ' labels derived from their phonological/orthographic representation ; (*b*) ' situational ' labels derived from their contextual functions :—

(*a*)		(*b*)	
s	1st pers. sing.		
w	2nd ,, ,,	masc.	
b	,, ,, ,,	fem.	
d	3rd ,, ,,	human	
y	,, ,,	non-human ; 3rd pers. pl.	
ʃʷ	2nd ,, pl.		
h	1st ,, ,,		

To these may be added for two-pronoun complexes the Reflexive **c** [1] :

e.g. (96) **csrxʃʷáʃʷad** ' *I cooled myself* '

(97) **clbáxd** ' *She saw herself* (in a mirror) '.

The P_2 system, which occupies second place in complexes with two or more pronouns, is of nine terms, which may be listed as follows :—

(*a*)		(*b*)	
s	1st pers. sing.		
w	2nd ,, ,,	masc.⎫	
b	,, ,, ,,	fem. ⎬₂	
y	3rd ,, ,,	human masc.	
l	,, ,, ,,	,, fem.	
a	,, ,, ,,	non-human	
r	,, ,, ,,	pl. human	
ʃʷ	2nd ,, ,,		
h	1st ,, ,,		

[1] Cf. also the ' Relative/interrogative ' **y** : e.g. **yθá-da** ' *Who went ?* ' beside **danháθa** ' *When did he go ?* '

[2] But in the Imperative forms **w** = 2nd pers. sing. (masc. and fem.). Note also that corresponding to the two-pronoun forms of the Imp. pl. (e.g. **yʃʷcʸpá** ' *Do it !* ' Neg. **yʃʷmcʸpán**) and sing. Neg. (e.g. **ywmcʸpán**), the Imp. sing. Positive has only a single pronoun (the 2nd pers. pron. being omitted)—thus **ycʸpá**.

To these may be added the Reciprocal **a** [1] :

e.g. (98) **hanq̇ʷáq̇ʷd** ' *We challenged one another* '

    (99) **yaysə́d** ' *They quarrelled with one another* ',

which in colligation with some roots is distinguishable by stress from the 3rd pers. non-human, as in

    (100) **yáyəsd** ' *It quarrelled with it* '.

The following are simple examples of the two-pronoun complex :—

    (101) **dlbád** ' *She saw him/her* '

    (102) **ylbád** ' *She saw it/them* '

    (103) **dybád** ' *He saw him/her* '

    (104) **yybád** ' *He saw it/them* '

and, with a different root :

    (105) **dlʃʸə́d** ' *She killed him/her* '.

These examples represent a very common type of complex. Formally comparable, as an isolate, with ex. 105 is

    (106) **dlə́sd**

An English translation, however, will suggest (though it will not of course justify) a different classification [2] ; for the translation is

           NOT ' *She hit him/her* '

           BUT '· *He/She hit her* '.

And there are in fact grammatical criteria by which to distinguish two classes of verbal root. These are as follows :—

A. In sentences containing two nouns (including disjunct pronouns) in concord with the pronouns of the verbal complex :

   A root of class 1 may be exemplified by

    (107) **aphʷə́s aqáθa dlʃʸə́d** ' *The woman killed the man* '.

---

[1] Only with roots of class 2 (see p. 155) ; with roots of class 1 the complex has for the Reciprocal a class 2 structure, but with the Reciprocal exponents indicable as **aba** : e.g. **hababád** ' *We saw one another* ' (beside **yhbád** ' *We saw them* ').

Cf. also the ' Relative/interrogative ' **z** : e.g. **dzbá-da** ' *Who saw him ?* ' beside **danbáyba** ' *When did he see him ?* '

[2] Cf. Schiefner, op. cit., p. 23 (' . . . welche einen intransitiven Character zu haben scheinen ' ; similarly Dumézil, op. cit., p. 156).
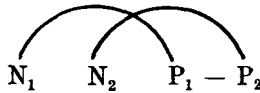
The concord-pattern is here as follows :

$$N_1 \quad N_2 \quad P_1 - P_2$$
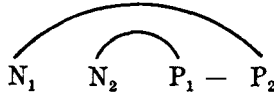
i.e. of N_1 with P_2, and of N_2 with P_1. This type of concord may be labelled ' Mirror ' concord.[1]

A root of class 2 may be exemplified by

(108) **aqáᎸa aphᵂós dlósd** ' *The man hit the woman* '.

The concord-pattern is here as follows :

$$N_1 \quad N_2 \quad P_1 - P_2$$

i.e. of N_1 with P_1, and of N_2 with P_2. This type of concord may be labelled ' Leapfrog ' concord.

Class 1 and class 2 roots may thus be distinguished as appearing in sentence-structures which have ' mirror ' or ' leapfrog ' concord respectively.[2]

B. The two classes may be distinguished in those forms of the complex which are characterized by the feature ' Potential ', the exponents of which are indicable by **z** : e.g.

(109) **dszófʸyd** ' *I can kill him* ' (Neg. **dgʸszófʸwam**)

(110) **szyósyd** ' *I can hit him* ' (Neg. **sgʸzyóswam**)

(111) **dzsósyd** ' *He can hit me* ' (Neg. **dgʸzsóswam**).

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[1] Noted already for Abkhaz by Uslar/Schiefner, op. cit., p. 22 (' Wie wir schon gesehen haben, wird im transitiven Verbum das Object der Handlung, wenn es durch ein Pronomen, ausgedrückt wird, vorangestellt, darauf aber folgt das Pronomen, welches das handelnde Subject bezeichnet. Die absoluten Pronomina aber, welche den Verbalformen vorangestellt werden, folgen einer umgekehrten Ordnung, in dem das handelnde Subject voran-, das Object aber nachgestellt wird '). Cf. also Kuipers, op. cit., pp. 200, 205.

[2] This does not preclude the reversal of the noun-order for emphatic or stylistic purposes ; the concord-class to which any given root belongs having been established by the criterion of order in ' normal ' sentences, the concord alone is generally sufficient to prevent semantic ambiguity in ' non-normal ' sentences.

In the case of class 1 roots (as in ex. 109) the exponents of the Potential follow the exponents of P_2; in the case of class 2 roots (as in exx. 110, 111) the exponents of the Potential follow the exponents of P_1.

Cf. for further contrast :

    (112) **dgʸɣaszémḳd** ' *I couldn't get hold of him* '

    (113) **dgʸzɣasémqd** ' *He couldn't drag me* (here) '.

By the criteria of A and B combined it follows that for both classes the exponents of the Potential follow the exponents of the pronoun that is in concord with N_1.

Further occasional criteria for the distinction of the two classes are provided in two-pronoun prefixed complexes (see also p. 161) ; with roots of class 1, the exponents of the prefix follow those of P_1 :

e.g. (114) **yélasθad** ' *I planted it* '

    (115) **djʷékʷrgad** ' *They carried him off* ',

whereas with roots of class 2 the exponents of the prefix follow those of P_2 :

e.g. (116) **srélald** ' *I joined them* '

    (117) **dráyɣʸd** ' *He grumbled at them* '.

The P_3 system is identical with the P_2 system, with the exception that the 3rd pers. non-human is represented by **na** instead of **a** [1] :

e.g. (118) **zajʷgʸéy ygʸléymtd, anxará ylnátd** ' *No man gave it to her, toil gave it to her* '.

A P_3 system is required for two types of complex :

A. The three-pronoun complex (which includes in particular the causatives of the two-pronoun complexes) :

e.g. (119) **yléstd** ' *I gave it to her* '

    (120) **ylsrʃʸéd** ' *I made her kill it* '

    (121) **dasrésd** ' *I made her hit it* '.

---

[1] Note the junctional peculiarity that in prefixed forms (see p. 158) of which the prefix has a stressed close vocalic articulation as its final exponent before the exponents of a following pronoun other than 3rd pers. non-human, the exponents of a following 3rd pers. non-human pronoun bear the stress : thus **yʃʸṭnáxd** ' *it lifted it* ' beside **yʃʸṭélxd** ' *she lifted it* '.

Where the sentence includes three nouns, the concords are as follows :

(i)

$$N_1 \qquad N_2 \qquad N_3 \qquad P_1 - P_2 - P_3$$

(ii)

$$N_1 \qquad N_2 \qquad N_3 \qquad P_1 - P_2 - P_3$$
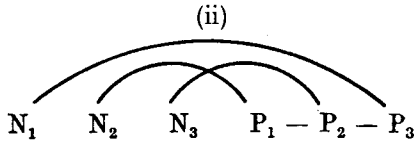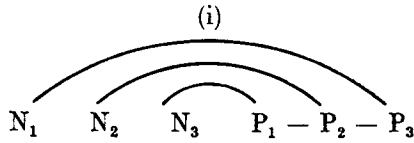
i.e. in type (i), N_1 with P_3, N_2 with P_2, and N_3 with P_1. This also may be labelled a ' mirror ' concord, and is applicable to the Causative forms of class 1 roots (as in no. 120) ; and in type (ii), N_1 with P_3, N_2 with P_1, and N_3 with P_2, which might be labelled a ' mixed ' concord, and is applicable to the Causative forms of class 2 roots (as in no. 121) and to all three-pronoun non-causative complexes (as in no. 119).[1]

The two root-classes established for the two-pronoun complex are thus seen to be distinguishable by concord in the three-pronoun (Causative) complex also. The criterion of the Potential exponents is likewise applicable ; for roots of class 1, the Potential exponents follow the *third* set of P-exponents, as represented by e.g. the l in

(122) **sgʸylzómrʃʸd** ' *She couldn't make him kill me* '

whereas for roots of class 2, the Potential exponents follow the *second* set of P-exponents, as represented by e.g. the **y** in

(123) **sgʸyzlmrósd** ' *He couldn't make me hit her* '.

---

[1] Note that the root **rba** ' *show* ', though patently etymologizable as a Causative form of the root **ba** ' see ' (class 1), follows a concord of type (ii), thus :

aqáθa alá aphʷóspa ylyrbád ' *The man showed the dog to the girl* ', similarly to

**aqáθa alá aphʷóspa ylóytd** ' *The man gave the dog to the girl* ', and in contrast with

aqáθa aphʷóspa alá-lyrʃʸód ' *The man made the girl kill the dog* '.

In these, as in the two-pronoun complexes, it can be established that the Potential exponents follow the exponents of the pronoun that is in concord with N_1.

We have here referred to the 'second/third set of P-exponents' rather than to 'the exponents of P_2/P_3'; this distinction is not insignificant. An extended sentence containing ex. 121 would be as follows :—

> (124) **yará sará aph^{w}óspa sg^{y}yzlmrósd** '*He couldn't make me hit the girl*' ;

and if one assumed that the second and third sets of P-exponents (indicated by **y** and **l** respectively) were necessarily the exponents of P_2 and P_3, the concord would be unlike all others in having an asymmetrical pattern, viz. [1] :
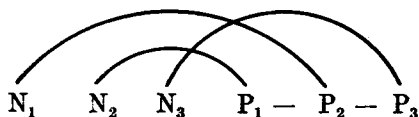
This would indeed be interesting ; but not altogether justified, as can be shown by a crucial experiment. This consists in introducing a 3rd pers. non-human pronoun, by which alone it is possible to distinguish the P_2 and P_3 systems : thus—

> (125) **yará sará alá sg^{y}yzamrósd** '*He couldn't make me hit the dog*'.

It is seen that the third set of P-exponents is indicated by **a** and not **na**, i.e. is of a P_2 and not of a P_3. The peculiarities

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[1] Cf. the apparent pattern of (a) the Potential in ex. 51 as against (b) its non-potential equivalent :
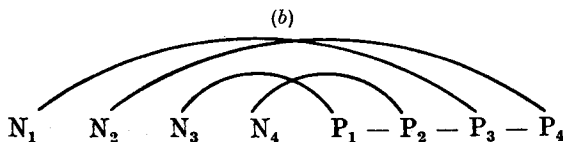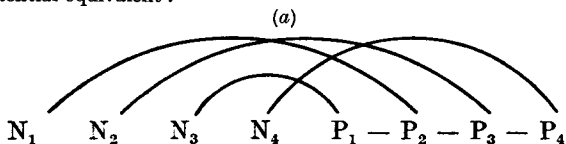
of exponential *sequence* associated with the Potential in three-pronoun complexes containing class 2 roots are thus not reflected in the *order* of grammatical structure.   Concord relationships are relationships between elements of grammatical structure and not between phonic data ; and the concord-patterns of the Potential are thus the same as those of the non-potential.

B. The P_3 system in two-pronoun prefixed complexes.

In the examples under A, the third place was established for a P_3 by the presence of two other pronouns, a P_1 and a P_2. It is, however, not only pronouns that are capable of establishing place ; for prefixes also may function as place-makers. The crucial examples are again provided by the 3rd pers. non-human pronoun [1] :

e.g. (126) **dqánapsald** ' *It tossed him* '

    (127) **yʃʸʈnáxd** ' *It lifted it* '

    (128) **ypnačʷáb** ' *It will tear it* '

    (129) **dꭓónnaθad** ' *It threw him* '.

In the above examples the pre-radical elements are P_1-prefix-P_3.

But not all elements having pre-radical exponents can function as place-makers :   thus—

    (130) **dgʸambád** ' *It didn't see him* '

    (131) **watábaxd** ' *It saw you again* '

    (132) **sꭓabád** ' *It saw me* (as I was coming here) '

    (133) **dzáqyd** ' *He can pull it* '.

In these examples the second pronoun is in a P_2 system, although its exponents (indicable by **a**) are preceded by those of a P_1 and another element (Negative, ' Repetitive,' ' Directive,' Potential).   This applies even when there is a combination of such elements :

e.g. (134) **sgʸzꭓáqwam** ' *I can't pull it* ' (Past : **sgʸzꭓámqd**), where the second pronoun is in a P_2 system although its exponents are preceded by those of a P_1 and of three other elements (Negative, Potential, and Directive).

---

[1] Cf. Schiefner, op. cit., p. 20.

Certain characteristics of the non-place-making elements are to be noted. In the case of the Negative, the exponents indicated by **g**[y] [1] are only partial exponents, and have the expectation of further exponents, indicated by **m**. In the case of the Repetitive, the pre-radical exponents indicated by **ata** are only partial exponents, and have the expectation of further (post-radical) exponents, indicated by **x**. All the non-place-making elements, including the Directive [2] and Potential [3], may commute in paradigm with an opposed term having no phonic exponents : thus there is the Positive **dabád** beside the Negative **dg**[y]**ambád** ; the non-repetitive **wabád** beside the Repetitive **watábaxd** ; the non-directive **sabád** beside the Directive **sχabád** ; and the non-potential **dáqyd** beside the Potential **dzáqyd**. This state of affairs contrasts with that of the place-making prefixes ; only exceptionally do roots appear in both a prefixed and a non-prefixed form, although, as may be seen from the table below, the appearance of the same root with different prefixes, and of the same prefix with different roots, suggests the etymological assumption of a simple root.

Prefixes

		əla-	əθ-	
Roots	-θa	' *plant* '	' *add* ' ' *cause to join* '	(tr.)
	-l	' *join in* '	' *join* '	(intr.)

The non-place-making elements raise a similar point of theory to that discussed in connection with the Potential (p. 158). Their phonic exponents occur in a particular sequence, which may be indicated in their phonological or

[1] Which always immediately follow those of P_1.

[2] The exponents of which, *ceteris paribus*, immediately follow those of P_1, but give precedence to those of the Negative (**g**[y] : see above) and of the Potential.

[3] For the position of the Potential exponents see p. 156.

orthographic statement. Such sequence, however, does not imply a corresponding linear ordering of the grammatical structure : an example such as **sgᵛzɣámqd** (134) is probably best not analysed in such a way as

$$\text{P-Neg.}_1\text{-Pot.-Dir.-P-Neg.}_2\text{-R-S,}$$

but rather in the following manner :

$$\begin{array}{c} \text{Neg.} \\ \text{Pot.} \\ \text{Dir.} \\ \overbrace{\text{P-P-R-S}} \end{array}$$

with Negative, Potential, and Directive occupying a second dimension, rather like the prosodies in a phonological statement.[1]

Indeed Bazell is in a way justified in his statement that, ' to say of two grammatical elements that one precedes the other is probably meaningless,' [2] in so far as ' precedence ' refers to sequence on the time-track of phonic events.[3] The grammatical elements, however, may of course precede one another in the sense of being written one before the other in the statement of grammatical structure. To the extent that the ordering of the statement can be made congruent with exponential sequence, it is probably desirable to do so ; but where this is not possible, one must either adopt non-linear symbolisms as above, or accept that the order of grammatical statement carries no guarantee of congruent exponential sequence.

It remains to mention certain features of order associated with the place-making prefixes.

In sentences with mirror concord (i.e. containing verbal complexes with class 1 roots), the order of pre-radical elements, with regard to their exponential sequence, is

$$\text{P}_1\text{-prefix-P}_2\text{---}$$

and in sentences with leapfrog concord (i.e. containing verbal

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[1] Cf. e.g. *BSOAS*, xiii, 4, pp. 939 ff.
[2] *TPS*, 1938, p. 106.
[3] Cf. Firth, *Lingua*, I, 4, p. 404.

complexes with class 2 roots), the order of pre-radical elements is

$$P_1\text{-}P_2\text{-prefix—.}$$

From this it follows that any prefix follows the pronoun that is in concord with N_2. The place occupied by the prefix may then be used as a criterion for determining the class of any prefixed root, even though there may never be two nouns in concord ; one is thus enabled to classify as belonging to class 2 the roots **-hᵂ** and **-ha** exemplified in

(135) **ygʸɣahódamhᵂd** ' *We didn't succeed* '

(136) **ylólahad** ' *She has grown up* ' [1] ; Neg. **ygʸlólamhad**.[2]

It will be seen from these examples that the position of the second set of exponents of Negation (indicated by **m**) provides a criterion for determining whether a class 2 root is prefixed or not :

thus : (137) **dgʸsxʸómẟ ad** ' *He didn't catch me up* ' is prefixed

but   (138) **dgʸsmnq̇ᵂǻᵂq̇d** ' *He didn't challenge me* ' is unprefixed.

The same criterion is applicable to roots functioning in a one-pronoun complex :

thus : (139) **sgʸqómsd** ' *I didn't cross* ' is prefixed

but   (140) **sgʸmgóld** ' *I didn't stand up* ' is unprefixed.

The only exception to this criterion of the Negative exponents occurs when the radical initial exponent is a close vocalic articulation (ǝ) ; in such cases the second set of Negative exponents (**m**) follow the vocalic articulation (cf. also p. 148, n. 1) :

e.g.   (141) **dgʸlómsd** ' *He didn't hit her* ' ;

that ǝ does not here represent a prefix is then shown by the Causative form

(142) **dlsrósd** ' *I made him hit her* ' (Neg. **dgʸlsmrósd**),

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[1] Note also **slólahayd** ' *I am fond of her* '.

[2] Note an interesting parallel in Irish—Dillon, *TPS*, 1955, p. 107, on the ' impersonal ' use of the verb : ' The verb is sg. 3 active and transitive, and the meaning is passive (or intransitive) . . . this construction occurs even with the verb *ásaid* " grows ", which is normally intransitive ' ; cf. discussion, ibid., pp. 109 f.

since the Causative exponents (r) without exception immediately precede the radical exponents and thus provide a further criterion for prefixation. This example may be contrasted with the prefixed forms

(143) dlódgəld ‘ *He approached her* ’, Neg. dgʸlódmgəld ;
Causative : dlódsrgəld ‘ *I made him approach her* ’,
Neg. dgʸlódsmrgəld,

where the data indicated by əd are shown to be prefixal exponents.

In the case of class 1 roots, both the second set of Negative exponents and, as we have already seen, the second set of pronominal exponents follow the prefixal exponents :

e.g. (144) yólayθad ‘ *He planted it* ’, Neg. ygʸólaymθad, is a prefixed form,

but (145) yscʷaɣʷád ‘ *I ploughed it* ’, Neg. ygʸsmcʷaɣʷád, is an unprefixed form.

In considering the prefixes no special distinction has been made between what might be called ‘ preverbs ’ and ‘ postpositions ’, i.e. no rigorous attempt has been made to attach them more intimately to the root or to the preceding pronoun. One might, however, classify the prefixes into two groups as follows :—

(i) Those which only follow a P₁ (e.g. qa, ʃʸ{ə, p, jʷək ̫, ta, k̯ən)

(ii)   ,,   ,,   ,,   ,,   P₂ (e.g. əd, ək ̫, əθ, c ̫ə, zə, a, ay)

and on the basis of their general contextual functions there would be no harm in labelling (i) ‘ preverbs ’ and (ii) ‘ postpositions ’.[1] The classes are not, however, mutually exclusive, as can be seen from the distribution of əla in exx. 114 and 116 above.[2] A further distinction might be made in (ii) between

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[1] Note that in yszácʸpad ‘ *It did it for me* ’ the P₂ form of the 3rd pers. non-human pronoun (a, not na) shows that the pronoun and prefix whose exponents are indicated by sz do not make place (cf. yácʸpad ‘ *It did it* ’.) Cf. also the peculiarities of the *Potential* discussed on p.   .

[2] A ‘ postposition ’ and a ‘ preverb ’ may co-occur, as in dscʷjʷ ók ̫ld ‘ *He escaped from me* ’, Neg. dgʸscʷjʷ ók ̫mld.

those which appear in two-pronoun complexes and in three-pronoun complexes—but here again there would be overlap :
e.g. (146) **drɵϴld** ' *He joined them* '
(147) **drɵϴsǫad** ' *I made him join them* '.[1]

<div align="center">V</div>

<div align="center">

SEMANTIC STATEMENT : CONTEXTUALIZATION OF THE
DIRECTIVE SYSTEM

</div>

The statements thus far have considered the functions of elements (phonological and grammatical) in the structure of the complex, and of the complex in the structure of the sentence (with which it may be coextensive).   In semantic analysis one is concerned with the functions of utterances in situations ; the minimal utterance is a sentence : but in many cases it is also possible to relate the functions of individual elements of the sentence to individual features of the situation.[2]   One system of such elements will here be considered—the system of ' Directives ' (cf. p. 159).

It may first be emphasized that for purposes of linguistic statement the situation is not to be considered as possessing a structure *in rebus* [3] ; any such assumption is liable to lead to a ' common-sense ' description—in fact in terms of one's native language-type—which may be quite inappropriate to the language under discussion.   Structure is imposed upon the material (of whatever kind) by the analyst ; and when the purpose is that of linguistic statement, the structural framework and the systems of categories established within it must be linguistically determined—whether the material be phonic or situational.[4]

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[1] Note, however, the distinction between **dsáyɣϵc^yd** ' *He robbed me* ' (with **ay**) and **ysc^wɵyɣϵc^yd** ' *He stole it from me* ' (with **c^wϴ**).

[2] Cf. J. R. Firth, § II of ' A Synopsis of Linguistic Theory ' (*Studies in Linguistic Analysis*).

[3] Cf. Firth, ' Personality and Language in Society,' *Soc. Rev.*, XLII.2, pp. 37 ff.

[4] Cf. J. Holt, *Études d'Aspect* (*Acta Jutlandica*, XV, 2, 1943), p. 23 : ' . . . le système des valeurs distinctives des signes linguistiques est

The system of Directives has been selected for exemplification because attempts to establish its contextual functions in the N.W. Caucasian languages have been peculiarly unsuccessful—at least partly for reasons that have been suggested above.

The grammatical Directive system is of three terms, which might be given the rough contextual labels 'Hither', 'Thither', and 'Neither', and the exponents of which are indicable by ʒa, na, and *nil*. These exponential indications will in fact be used hereafter as labels for the grammatical terms, in order that the contextual labels may not obscure or prejudice the issue.

The na term is of comparatively rare occurrence, and may always be substituted by *nil* [1]; exceptions are provided only by those verbs of which there appears to be no exactly corresponding *nil* form; e.g.

(148) ʒágra : nágra ' *to bring/take* ' [2] (cf. gará ' *to carry* ')

(149) ʒáyra : náyra ' *to come here/there* ' [2] (see, however, p.   , n.)

(150) ʒádra : nádra ' *to come and bring/take* ' (? cf. éd-dara ' *to take to* ')

(151) ʒáxʷra : náxʷra ' *to hand to/take from* '

Attention will therefore be focused upon the ʒa term. This is

entièrement indépendant du système des idées logiques. La langue a ses significations à elle, ses valeurs qui n'obéissent qu'à leur propre ordre '; E. Lewy, *Versuch einer Charakteristik des Awarischen*: *mit Exkursen zur Sprachtheorie* (*Sb. d. deut. Ak. d. W. zu Berlin, Kl. f. Spr., Lit. u. Kunst*, 1952, 3), p. 13 n. : ' Sprache ist eben etwas gänzlich Eigenartiges, absolut Unvergleichbares . . . Die Sprache ist nun einmal kein Ausdruck und noch weniger der Ausdruck des Denkens.'

[1] Cf. (on Circassian) Dumézil, *Réponses à des Remarques du Prince Trubetzkoy*, p. 2 ; Dumézil & Namitok, *Fables de Tsey Ibrahim*, p. 21 ; N. F. Yakovlev, Грамматика лит. кабардино-черкесского языка (Moscow-Leningrad, 1948), p. 99.

[2] Note the inseparability of ʒa/na in dséʃ'taʒayd/dséʃ'tanayd ' *He followed me here/there* ' (the Directive exponents normally follow those of the first pronoun in the complex) ; and the lesser degree of separability in ygʸszʒámgd ' *I couldn't bring it* ' compared with ygʸʒaszómkd ' *I couldn't get hold of it* '.

described by Serdiuchenko simply as indicating ' hither ' [1] ;
Bouda refers to its functions in indicating a relation of the
3rd to the 1st person [2] ; Marr mentions the ' hither ' function
of the Abkhaz equivalent, but adds that it may also impart
certain unspecified nuances of meaning to the verb [3] ; state-
ments on the corresponding form in Circassian are typified
by Trubetzkoy :

' il indique que le mouvement exprimé par le verbe se
produit dans la direction vers le sujet parlant (ou vers l'endroit
ou se passe l'action du récit et où, par conséquent, le sujet
parlant est mentalement présent) [4] . . . Parfois sa significa-
tion primitivè semble effacée, mais quand on examine la
phrase attentivement on retrouve toujours cette indication
de la direction ' vers nous '. En somme, en lisant attentive-
ment les textes tcherkesses on parvient aisément à com-
prendre le vrai sens du préfixe κ.' [5]

At least so .far as Abaza is concerned, none of the accounts
provide an adequate framework for describing the contextual
functions of the ʒa Directive. They admittedly suffice in
such obvious examples as :

(152) yʒasóytd ' *He gave it to me* '

(153) yʒasót ' *Give it to me !* '

(154) yʒasálhʷd ' *She told me* '

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[1] Абазинские сказки, p. 66.

[2] op. cit., p. 241.

[3] Словарь, s.v. ' 4 aă- → ā- '.

[4] A partial parallel to this function is provided by the German *her/hin*
(cf. Sapir & Swadesh, *The Expression of the Ending-point Relation in English,
French, and German* (*Lg. Monog.* 10).

[5] *Remarques*, p. 10. Cf. Dumézil & Namitok, op. cit., p. 20, ' Le préverbe
qe . . . qui signifie proprement " vers ", est très fréquemment .
employé comme simple outil grammatical quand, sous certains rapports
(encore mal determinés), l'action est dirigée " vers " . . . la 1ʳᵉ personne
ou " vers " la 2ᵉ (mais dans ce cas, lorsque l'agent est de 3ᵉ personne) ' ;
Deeters, *Caucasica*, XI, p. 74, ' *qe* . . . ist ein Präverb von schwer zu
erfassender Bedeutung ", and (commenting on the above conditions) ' Damit
ist seine Anwendung aber noch nicht erschöpft ' ; Yakovlev, loc. cit.,
' The prefix of personal direction " къы "—" thither " (is used) in those
cases where the action is directed from the 3rd or 2nd person to the 1st,
or from the 3rd person to the 2nd ' ; also [Yakovlev & Ashkhamaf, Краткая
грамматика адыгейского (кяхского) языка (Krasnodar, 1930), p. 79].

(155) **dẓád** ' *Come and bring him !* '

(beside **dnád** ' *Come and take him !* ')

(156) **yẓaʃʸţə́x** ' *Pick it up and put it over here !* '

(beside **ynaʃʸţə́x**   ,,   ,,   ,,   ,,   *there!*

     yʃʸţə́x ' *Pick it up !* ') ;

and no difficulty is presented by e.g.

(157) **yẓawə́ltb** ' *She* (who lives elsewhere, or is not of my
family) *will give it to you* (who live here, or are of
my family) '.

But they are quite inadequate to the cases presented by e.g.

   (158) **yẓawzə́sɛʷd** ' *I wrote to you* '

or (159) **yẓawə́stxb** ' *I will give it back to you* '

A fresh attempt was therefore made to construct a frame-
work capable of handling all contextual functions of the
Directive system. Instances were established by the informant
and myself acting out a series of crucial situations, in the course
of which I observed his utterances and his reactions, verbal
and non-verbal, to my own (including his corrections of those
of my utterances which he found inappropriate to the situa-
tion). From this study it emerged that the relevant locations
are

(*a*) that of the initiation of the motion ;

(*b*) that of the speaker *at the time of speaking* (' here ') ;

and that the location of the speaker at the time of the action
is quite irrelevant (unless, of course, the action is in the present,
when the location of the speaker at the time of speaking
incidentally coincides with that of the speaker at the time of
the action ; cf. also p. 168). The motion is thus divorced
from time ; the time-dimension is, as it were, telescoped
into a present which is thereby rendered timeless ; there is
thus no need to distinguish Past and Future, or even Then
and Now ; the framework is reducible to a single dimension
in which are located Here and There.

Further, it is the ultimate rather than the immediate end of
motion that is relevant. Thus, whereas the immediate end of
the act of speaking, viz. reception by the hearer, represents
also the ultimate end, this is not necessarily the case with the

act of giving, of which the ultimate end, if the present analysis is valid, may be the arrival of the given object *apud recipientem*.

Examples such as nos. 158 and 159 now become comprehensible ; their contextual conditions may be indicated by expanded translations as follows :

(158) ' *I* (who was then *apud me*) *wrote* (and sent the letter to you, *apud quem* I now am).' [1]

(159) ' *I* (who am now *apud te*) *will give it back to you* (when you come *apud me* [and you will then return it *apud te*, where I now am]).'

A diagrammatic illustration of the motions involved in no. 159 would be :

Here *(apud te)*   There *(apud me)*

Now   I YOU   △ IT

Then
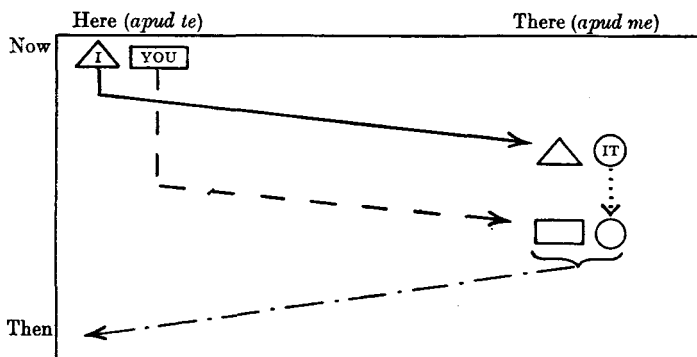
For linguistic purposes, however, the time dimension has only an indirect relevance, in so far as through its medium the speaker may be located both Here and There, and so may constitute both poles of the motion.

It is to be noted that Here and There are relative locations. Thus in the above example, *apud me* is There relatively to US, and WE are Here relatively to *apud me* ; the immediate end of motion is indifferent relatively to US Now, and it is the ultimate end that is significant. In a case, however, where no distant location is involved, as in no. 153 ' *Give it to me* (here now, for my use here) ! ' YOU are There relatively to ME,

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[1] The telephone provides a context also for **yɛawásh^wd** ' *I* (who was then *apud me*) *told you* (who were here *apud te*, where I now am) '.

and the immediate end of motion (which is here relevant) is towards ME : thus—

△<‎· · · · · ·○▭
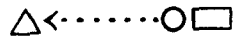
The following are further examples to illustrate the contextual functions of the ʒa Directive.

(160) yʒasknóld ' *It stuck to me* '
(beside the ' static ' ysknób ' *It is sticking to me* ')

(161) dʒadróyd ' *He was born* (sc. into the world) '

(162) awandór sʒákʷǫd ' *I got down from the cart* (to the ground) '

(163) dʒačʷád ' *He* (came and) *sat* (by me/us) '

(164) sʒačʷád ' *I sat up* ' (i.e. towards my present position) :
(beside sčʷád ' *I sat down* ')

(165) dʒasxʸóS ad ' *He caught up with me* (on my way here) '
(beside dnasxʸóS ad ' *He caught up with me* (on my way there) ')

(166) dʒasbád ' *I saw him* (as I was coming here, he being ahead of me and so between me and here) '
(beside d(na)sbád ' *I saw him* (as I was going away from here) ')

(169) dʒayʃʸód ' *He* (being a stranger) *killed him* (being my kinsman) '

(168) dʒasrópxʸad ' *I made him read* (to me) '
(beside dnawzsrópxʸab ' *I will make him read to you* '

(169) yʒanósʒʸd ' *I left it* (there and came here) '
(beside ynósʒʸd ' *I left off* ')

Note also :

(170) yʒakʷáyd ' *It is raining* ' (sc. from the sky earthwards)

(171) yʒasóyd ' *It is snowing* '   ,,   ,,
and the exogeneous

(172) áɣ-ʒásyd ' *It is hailing* '   ,,   ,,

(173) ámara-ʒakḵóyd ' *The sun is shining* ' ,,   ,,

(174) apʃá-ʒásyd ' *The wind is blowing* (sc. from *x* to here) ' [1]

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[1] The ʒa Directive is in fact here constant, even in narrative accounts of which the setting is elsewhere ; the source of the wind is thus classifiable, like that of other atmospheric phenomena, as Absolutely Elsewhere.

SUPPLEMENTARY NOTES

1. *The ' syllable ' in Abaza*

The statements here made on phonological structure have not exploited or defined the concept of ' syllable '. The term was used only in collocation with ' stressed ' and ' unstressed ' ; where thus employed it was in connexion with the establishment of vowel-systems, and one could possibly have spoken simply of stressed and unstressed vowels ; the term ' syllable ' was used, however, in recognition of the fact that the exponents of stress may extend beyond the bounds of the vowel articulation—though the precise limits of that extension are not statable.[1] Nowhere have words or complexes been stated as comprising a particular number of syllables ; from the statements given one could characterize them only as comprising particular numbers and combinations of C and V elements ; the concept of ' syllable ' was not introduced, simply because it was not found necessary.

If one were asked how many syllables there are in, say, **ygʸyzdmlrɵtxd**, one's reply would be that it depends how ' syllable ' is defined ; the answers will in any case be derivable from statements already made. If ' syllable ' is defined phonetically as a segment containing a vocalic articulation, or a peak of sonority, judgments will probably vary between *five* and *six* ([jig̩iːzdɪm]ⁱrɪtʰ(ᵊ)xd]), according to whether one hears a vocalic transition between [tʰ] and [x] ; if on the other hand one considers any consonant (in view of its transitions in some environments [2]) as the potential carrier of an ' inherent vowel ',[3] the form in question is a *hendecasyllable*. And if ' syllable ' is defined phonologically as containing a V-element, the form is *monosyllabic*.[4]

[1] Cf. J. R. Firth, *TPS*, 1955, p. 88.

[2] Thus in **srɵlɵd** there is no vocalic transition after [s] or [l] ; but there is after both in the Negative form **sgʸrɵlmɵd**.

[3] Cf. Hockett, *A Manual of Phonology*, p. 57 (on Bella Coola) ; and with reference to IE, Kurylowicz, *Études Indoeuropéennes*, I, p. 59 ; Hjelmslev, *Studi Baltici*, 6, pp. 45˙ff., 51 (quoted by Borgstrøm, *NTS*, 15, p. 138).

[4] Cf. Hockett, op. cit., p. 53.

The penultimate solution seems logically to lead to a reduction of the vowel-systems to a single term in all positions —or perhaps better, avoiding the establishment of one-term systems, to a complete elimination of vowels (and consequently of consonants). One would simply have syllables, to the number of the consonants in the present statement ; within the complex one syllable would bear main stress ; and any syllable would be of either ' open ' or ' close ' type. ' Open ' syllables would have exponents comprising a consonantal articulation followed by an open vocalic articulation ; and ' close ' syllables a consonantal articulation followed or not followed by a close vocalic articulation in accordance with the rules discussed on p. 142, but with the added specification of a close vocalic articulation in stressed position.[1]

On this interpretation the example discussed above would be represented as **yg^{y}yzdmlŕtxd** ; and other examples restated (using subscript $_.$ to indicate ' openness ') as follows :—

> ylólahad $>$ yḷ̣hd
> yg^{y}ɣahódamh^{w}d $>$ yg^{y}ɣ̣ḥ̣dmh^{w}d
> yɣawásh^{w}d $>$ yɣ̣ẉsh^{w}d

Examples of the type discussed on p. 143 could be represented with the aid of a grave accent as follows :—

> dlódgəld $>$ dídg̀ld
> dsáyɣəc^{y}d $>$ dṣyỳc^{y}d

In other than endogeneous verbal complexes a zero term would be required in the system of initial syllables, as a carrier of ' openness ' without a consonantal articulation ; a form such as **ah^{w}a-rzósc^{y}pab** might then be represented as **ǂḥ^w-rźsc^{y}pb**.

If such an extension of the term ' syllable ' were felt to be misleading, it might be replaced by some other term carrying less traditional associations. There are evident objections to

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[1] The terms ' open ' and ' close ' as here used would thus to some extent combine the two meanings of each of these terms as traditionally employed, viz. with reference both to vowel quality and to syllable structure.

the use of the term ' character ' [1] ; and one would prefer a term with the diverse applications of the Arabic ' ḥarf ' (with its properties of ' ḥarakah ' and ' sukuun ').[2]   The transcriptions here suggested, despite their Roman typographic basis, can hardly fail to evoke a reminiscence of Arabic conventions ; and one is tempted to conclude that the early use of the Arabic script for the representation of Abaza may have had much to commend it from the standpoint of phonological structure.

2. Abaza and Indo-European

It is perhaps unnecessary to emphasize that no suggestion is made of any genetic relationship between Indo-European and Caucasian. But it seems worthy of note that the further one pursues the structural analysis of Indo-European (whether viewed as a formulaic abstraction or as a reconstruction), the nearer it approaches to a phonological typology [3] such as is represented by Abaza. The following outstanding features may be mentioned, of which (a) is part of traditional doctrine :

(a) The establishment of three velar series for IE (*k, $\hat{k}$, k^w, etc.) is paralleled by similar triadic series in the uvular, velar, and prepalatal articulations of Abaza.

(b) The reduction of the IE vowel-system to a single term [4] recalls the Abaza systems of two terms in stressed and one term in unstressed syllables.

(c) The postulated IE ' laryngeals ', voiced and voiceless, and associated with variations in vowel-quality, find a parallel in the pharyngals of Abaza ; and it is notable that a ' distinctive feature ' analysis of the reflexes in the IE languages leads

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[1] Less restricted in its usage is the Chinese equivalent : see M. A. K. Halliday, ' Grammatical categories in Modern Chinese ', *TPS*, 1956, § v. 2 ; cf. also the uses of the Indian ' akṣara '.

[2] Cf. M. H. A. El Saaran, *A Critical Study of the Phonetic Observations of the Arabic Grammarians* (Ph.D. Thesis, London, 1951), Ch. I.

[3] Cf. T. Milewski, ' Comparison des systèmes phonologiques des langues caucasiennes et américaines,' *Lingua Posnaniensis*, V, 1955, pp. 136 ff.

[4] Cf. Lehmann, *Proto-Indo-European Phonology*, pp. 111 f. ; Borgstrøm, *NTS*, 15, pp. 137 f. ; Hjelmslev, *Mél. Pedersen*, p. 43 ; Sweet, *TPS*, 1880–1, p. 161.

to the suggestion of a system expanded beyond the three terms of the ' classical ' doctrine, by the inclusion of a labialized term or terms.[1] As long ago as 1880 Henry Sweet had in fact suggested the value of a labialized pharyngal for one of de Saussure's ' coefficients sonantiques '.[2]

(d) A more controversial suggestion, which would ultimately make the IE vowels entirely prosodic, culminates in a rule that, ' in word forms containing three or more consonants, a vowel was sounded . . . after every second consonant counting from the end of the word '[3] ; the similarity of this formulation to the ' two-consonant rule ' stated above (p. 142) is striking.

It is not proposed to enter into discussions of ' phonologische Sprachbünde ', leading to a renewal of ' Urheimat ' speculation[4] ; but when the IE analysis has led to so suggestively close a parallel, one may legitimately look to the living language to lend verisimilitude or otherwise to the reconstructional value of one's IE formulae.[5] Certainly a language of this type renders invalid such statements as that of Hirt :

' Über die Natur des k^w ist man noch nicht im Klaren. Man spricht von Labiovelaren, Velarlauten mit Lippenrundung. Das sind aber Laute, die es so gut wie gar nicht gibt '[6] ; and tends rather to support the view that

' Angesichts der häufigen Kompliziertheit von Lauten und Formen der Primitivsprachen (!) wäre vielmehr zu glauben,

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[1] Martinet, *Word*, 9, pp. 253 ff.

[2] loc. cit.

[3] Borgstrøm, *NTS*, 16, p. 136 ; cf. *Word*, 10, p. 282.

[4] Cf., however, Kretschmer, *Anz. d. phil.-hist. Kl. d. Akad. d. Wiss. in Wien*, 1943, pp. 36 ff. ; Brandenstein, *Frühgeschichte und Sprachwissenschaft*, p. 134.

[5] Without at the same time losing sight of the principle (expressed by Borgstrøm, *Word*, 10, p. 276) that ' all reconstructive procedures are likely to yield an over-simplified picture of the reconstructed system '.

[6] *Die Hauptprobleme der indogermanischen Sprachwissenschaft*, p. 161. Likewise the phonetically uninformed scepticism of W. Petersen, *JAOS*, 59, p. 197 n., ' If these (sc. $*\vartheta_1$, ϑ_2, ϑ_3) were originally consonants with no vocalic infection, where did they get the varying vocalic resonance presupposed by the qualities of the resulting long vowels ? ' (with which contrast Sweet, loc. cit.).

dass die drei Reihen auf noch mehr Lautserien zurückgehen, als umgekehrt '.[1]

And the prepalatal affricate series of Abaza, with its correlations of palatalization and labialization, may be suggestive with regard to the troublesome and variously symbolized *$\hat{k}p$, $q^u ph$, etc., a monophonematic interpretation of which has recently found favour.[2]

3. *On Metalinguistic Style*

It seems desirable to acknowledge and account for certain turgidities of expression in the statements here presented (e.g. the rule stated on p. 142 ; cf. also p. 156).

One is well acquainted with so-called grammatical statements of the type : ' The first person singular pronoun is *I*.' But the comfortable days to which such pronouncements belonged are now past. One need not criticize the use of the situationally derived terms of person and number as epithets of the grammatical category ' pronoun ' ; the metaphor is probably admissible, provided that it is understood that the situation provides only *labels*, and not *criteria*, for grammar. *I* on the other hand is a letter of an orthographic transcription, and it is certainly an overstretching of the use of the copula to express thereby a relationship between grammatical analysis and English spelling. To avoid such infelicities one may say, less briefly but more precisely, that the pronoun has exponential phonic data (viz. [ai]) which are indicated in the orthographic transcription by *I*. This is at least preferable to a form of expression such as ' The . . . pronoun is *I* ', which is logically comparable with saying of *Potage Parmentier* that ' The soup is chips '.

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[1] Pisani, *Allgemeine und vergleichende Sprachwissenschaft—Indogermanistik*, p. 51 (criticizing the attempts of Kurylowicz and Safarewicz to reduce the velar series : as also Meillet, *Introd.*, pp. 91 ff.) ; cf. Martinet, op. cit., p. 267.

[2] Benveniste, *BSL*, 38, pp. 139 ff. ; Martinet, op. cit., pp. 265 ff. ; Lejeune, *Traité de Phonétique Grecque*, pp. 31 ff. ; cf. Allen, *Phonetics in Ancient India*, pp. 78 f.

As linguistics becomes more aware of its own internal rela-
tions, it is finding the structure of ordinary language inadequate
to their expression ; sooner or later this strained metalanguage
must be replaced by quasi-algebraic forms of statement [1]
(as already in Pāṇinean grammar and in Glossematics).
Suppose, for instance, that a convention had in fact been
established whereby situational (contextual) statements were
enclosed in parentheses, grammatical statements in braces,
phonic (exponential) statements in brackets, phonological
statements between obliques, and orthographic transcrip-
tions in quotes ; and that the relation between phonic and
other statements (including orthographic transcriptions) were
expressed by an arrow with its head to the former. Then a
full statement of the present example might take some such
form as

$$\{ \text{P}^{(1s)} \} \longrightarrow [\text{ai}] \longleftarrow /a^{\text{y}}/$$
$$\longleftarrow \text{ ' I '}$$

or, if it were not relevant to specify the phonic data or the
phonological analysis, simply

$$\{ \text{P}^{(1s)} \} \longrightarrow \longleftarrow \text{ ' I '}$$

By means of such symbolisms linguistic statements may
succeed in combining conciseness and precision [2]—which
virtues in the present uneasy interregnum come near to being
mutually exclusive.

Since the completion of this article, the kind co-operation of Prof. J.
Vachek in Brno has procured for me a copy of A. N. Genko's excellent
study, Абазинский Язык: грамматический очерк наречия тапанта,
Moscow, 1955 († : the work was completed in 1934), the phonetic and phono-
logical sections of which it is hoped to review in an early number of *Studia*

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[1] Cf. J. H. Woodger, *Biology and Language*, p. 9 ; E. H. Hutten, *The
Language of Modern Physics*, p. 18.
[1] The employment of symbols for *variables* (e.g. C, V) is well-established
in linguistics (cf. Jespersen's *Analytic Syntax*) ; it is for the *relations*, the
' logical constants ' of linguistics, that symbols are lacking. It is of course a
prerequisite of any such symbolization that its users should understand
the nature of the relations symbolized, and this may largely account for the
present position ; cf. Hutten, op. cit., p. 14.

Phonetica.   Genko, employing the Cyrillic orthography adopted also by Serdiuchenko, fills the gaps in Coln. 3 of Table 2 as follows : λ = лӏ, φ = шь (= Kab. *x*), φ^{w} = шьв (= Kab. *xy*); he also notes the gap corre-sponding to $*q^{y}$ (see Table 1).

Through the kindness of Prof. Vogt I have also been able to borrow from the library of Instituttet for Sammenlignende Kulturforskning in Oslo a copy of Lomtatidze's ა�ფხაზური ენის ტაპანთური დიალექტი, Tiflis, 1944 (lithog.). A further copy has now been obtained for me from the Georgian Academy through the co-operation of the Oriental Institute of the Československá Akademie Věd in Prague, whose continued searches for some of the less accessible publications I acknowledge with gratitude.

Further relevant publications since received are Serdiuchenko's Основные грамматические особенности языков западного Кавказа, Moscow, 1955; and (published by the Академия педагогических наук РСФСР) Родной и русский языки в школах северного Кавказа, 1955 (articles by Serdiuchenko and N. B. Ekba; table of the 'New Abkhaz Alphabet' [Аҧсуа алфавит ҽыц] on pp. 142 ff.) ; Родной и русский языки в национальной школе, 1953 (article by Serdiuchenko).