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IS SLAVIC A WEST BALTIC LANGUAGE?

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Comparative method so far has not been able to deliver a verdict in the Baltic and Slavic controversy, to wit: are Baltic and Slavic co-ordinate branches of IE, or are they subbranches of a Balto-Slavic branch. The volume of print addressed to this issue would easily fill a small library. This suggests that the problem is either extremely complicated, or relatively simple but unanswerable, or, that the question is incorrectly posed to begin with.

To eliminate potential misunderstandings, let us rehearse the main principle of subgrouping in comparative linguistics: shared innovation. The reason we call the central group of IE languages 'satem languages' is their adoption of an *s* or *š* pronunciation in IE words such as **k̑mtom* '100.' Languages which did not share in this change we call 'centum languages,' but there is a crucial difference between satem and centum. While the satem languages share an innovation, centum languages more-or-less just form the background. The reason we say that the Germanic languages constitute a separate branch of IE is a sound change of *p* to *f* (cf. Latin *pater* 'father' with Engl. *father*), of *k* to *h* (cf. La. *cornu*, Germ. *Horn*), and others. The remaining centum languages did not participate in these changes and, again, just constitute the background. We call languages that participated in this change 'Germanic' and postulate and reconstruct a Germanic proto-language. By way of contrast, notions such as 'non-Germanic centum' are not useful, and the notion of a 'non-Germanic centum' protolanguage is not theoretically defensible.

The reasons for the Baltic and Slavic impasse have to be viewed in the light of the above. Some dozen traits come up in the scholarly discussion as shared by Baltic and Slavic. Partisans of Balto-Slavic unity usually content themselves by listing these traits and by pointing out that at least some of these traits are innovations.¹ Opponents of BS unity as a rule emphasize that shared retentions are no proof of a special relationship, and that the innovations fall in one of two categories: those that are also shared by other branches, and those that are better taken as parallel developments.²

One such development in Baltic and Slavic is the rise of a definite adjective from an indefinite adjective and an inflected form of the pronoun *jis* 'this.' Thus, in Latvian *labs* means 'good' and *labais* 'the good;'; in OCS we have *dobro* 'good' and *dobroju* 'the good.' Contemporary Lithuanian shares this trait as well: *gėras* 'good' and *gerasis* 'the good;'; however, the Lithuanian development of a definite adjective stem as such is late. In the 16th c. the Lithuanian definite adjective is still fully analytic, e.g., Dat. pl. *pirmomisiomis* 'the first,' which consists of a fully inflected numeral stem and ending (*pirmomis*) and a demonstrative stem and ending (*jomis*). Accordingly, the Lithuanian development cannot date back to a Balto-Slavic protolanguage and has to be a parallel (albeit not necessarily independent) innovation.

If, however, we reject a Balto-Slavic protolanguage as non-demonstrable by means of the comparative method, the next logical question is: 'What shared innovations allow us to postulate a Baltic branch and a Baltic protolanguage?' The answer again is: none. From the comparative point of view, 'Baltic' in the sense of 'Latvian, Lithuanian, and Prussian' is just a name for 'non-Slavic,' comparable in theoretical validity to the imaginary 'non-Germanic centum.' Baltic in its current meaning is, in effect, the background against which Slavic can be defined, e.g., as 'the language which monophthongized *au* to *ū*, whereas Prussian, Latvian, and Lithuanian did not.' Yet the seemingly inevitable conclusion that Slavic, Prussian and East Baltic are three independent branches is not likely to satisfy anyone. Given the closeness of Prussian, Slavic, and East Baltic one is sorely tempted to find some reason to reduce these three branches to two or even one.

Some support for *not* separating Slavic, Prussian, and East Baltic comes from the following considerations. One commonly reconstructs East Baltic. One seldom, if ever, reconstructs Baltic, and for a very good reason—a protolanguage thus reconstructed is not strikingly different from the central IE dialect, shows internal dialect divisions, and is not exclusively shared by just Latvian, Lithuanian, and Prussian. In fact, if one adds Slavic information, the reconstructed 'Baltic' changes very little, if at all.³ While the above considerations do not lend support for an exclusively Baltic protolanguage, they also provide no reason to exclude Slavic from such a protolanguage, theoretically justified or not. In other words—whatever the validity of the term Baltic is, Slavic is a Baltic language.

Additional support for this point of view comes from an unlikely quarter—an examination of Latvian, Lithuanian, Prussian, and Slavic from a lexicostatistic point of view.⁴ We normally accom-

plish subgrouping via the comparative method, leaving lexicostatistics to deal with relationships between very remote languages, or cases where the number of languages to be subgrouped is very large. Here, however, a case will be made for using lexicostatistics when the languages in question are few, closely related, and well studied.

The hundred-word lists on which our observations are based are presented below. Latvian and Lithuanian are cited in modified orthography, Prussian in a normalized version,⁵ and Slavic in either an OCS (unmarked) or reconstructed (starred) form. A Prussian form was attested for only eighty-nine meanings; tallies involving Prussian have been adjusted to neutralize this fact.

	Latvian	Lithuanian	Prussian	Slavic
1 I	es	àš	as	azъ
2 thou	tu	tù	tū	ty
3 we	mēs	mēs	mes	my
4 this	šis	šis	šis	sъ
5 that	tas	tàs	stas	tъ
6 who	kas	kàs	kas	kъ-to
7 what	kas	kàs	kas	čъ-to
8 not	ne	nè	ni	ne
9 all	viss	vīsas	visas	vъsъ
10 many	daudz	daūg	tūlan	mъnogo
11 one	viēns	vīenas	ainas	edinъ
12 two	divi	dū	"dwai"	dъva
13 big	liēls	dīdis	debīkas	velikъ
14 long	garš	īlgas	ilgas	*dъlgъ
15 small	mazs	māžas	likutas	malъ
16 woman	siēva	môtē (-eris)	genā	žena
17 man	vīrs	vīras	vīras	mъžъ
18 person	cīlvēks	žmogùs	zmānents	*kilv-aikos
19 fish	zivs	žuvīs	zukans	ryba
20 bird	putns	paūkštis	pipelis	pъtica
21 dog	suns	šuõ	sunis	pъsъ
22 louse	uts	utēlē		vъšъ
23 tree	kūoks	mēdis		*dervo
24 seed	sēkla	sēkla	sēmen	sēme
25 leaf	lapa	lāpas		listъ
26 root	sakne	šaknīs	sagnis	korenъ
27 bark	mi za	žievē	sakstis	kora
28 skin	āda	óda	keuto	koža
29 flesh	gaļa	[mēsà]	mensā	męso
30 blood	asins	kraūjas	kraujā	kръвъ

31	bone	kaũls	káulas	kaulas	kostb
32	fat	tauki	taukai	taukis	tukb
33	egg	uõla	kiaušinis	pautas	aice
34	horn	rags	rãgas	ragis	rogb
35	tail	aste	uodegà		xvostb
36	feather	spalva	plũksna	plauks-	pero
37	hair	mati	pláukas	skebelis	*volzb
38	head	gaiva	galvã	galvã	*golva
39	ear	àuss	ausis	ausis pl.	uxo
40	eye	acs	akis	akis pl.	oko
41	nose	dẽguns	nõsis	nõsi du.?	nosb
42	tooth	zũobs	dantis	dantis	zqbb
43	tongue	mẽle	liezũvis	inzuvis	*inzũkos
44	mouth	mute	burnã	austo	usta
45	claw	nags	nãgas	nagutis	nogbtb
46	foot	kãja	kõja	naga	noga
47	knee	celis	kelys	klupstis	kolẽno
48	hand	rũoka	rankã	ranka	ruka
49	belly	vẽdẽrs	piĩvas	vẽders	*červo
50	neck	kakls	kãklas		šija
51	breast	krũts	krũtinẽ	kraklan	grqdb
52	heart	sifds	širdis	"seyr"	*sbrdbko
53	liver	aknas	kẽpenys	"iagno"	*ętro
54	drink	dzeft	gerti	pũt	piti
55	eat	ẽst	vãlgyti	ẽst	ẽsti
56	bite	kuõst	kašti		kqsati
57	see	redzẽt	matyti	vidẽt	vidẽti
58	hear	dziĩdẽt	girdẽti	kirdẽt klausĩt	slyšati
59	know	zinãt	žinõti	vaid-	znaĩti vedẽti
60	die	miĩrt	miĩrti	au-laut	*mertĩ
61	kill	nũogalinãt	užmũšti	galint	ubiti
62	sleep	gulẽt	miegõti	meigti	sĩpati
63	swim	peĩdẽt	plaũkti		plaviti
64	fly	liduõt	skristi		letẽti
65	walk	iẽt	eĩti	eit	iti
66	come	nãkt	ateĩti	pereit	grẽd-
67	lie	gulẽt	gulẽti		ležati
68	sit	sẽdẽt	sẽdẽti	sidons part.	sẽdẽti
69	stand	stãvẽt	stovẽti	stalẽt	stojati
70	give	duõt	dũoti	dãt	dati
71	say	sacĩt	sakyti	bilẽt	*rektĩ
72	sun	saũle	sãulẽ	saule	*sĩlnbko

73	moon	mēness	mēnuo	mēnins	luna
74	star	zvāigzne	žvaigždē	"lauxnos"	*gvězda
75	water	ūdens	vanduõ	undas	voda
76	rain	liētus	lietùs	"aglo/suge"	dǔždǔ
77	stone	akmens	akmuõ	stabis	kamy
78	sand	smilts	smiltis	"sixdo"	pěsǔkǔ
79	earth	zeme	žēmē	zeme	земѧ
80	cloud	mākuõnis	debesis	"wupyan"	*obvolkǔ
81	smoke	dūmi	dūmai	dūmis	дымǔ
82	fire	uguns	ugnīs	panu	огнǔ
83	ashes	pēlni	pelenaĩ	pelani	pepelǔ
84	burn	degt	dēgti		*žegti
85	path	ceļš	kēlias	"pintis"	pǔtǔ
86	mountain	kaĩns	kālnas	garbis	gora
87	red	safkans	raudõnas	varmins	čǔrvenǔ
88	green	zaļš	žālias	zaljan	zelenǔ
89	yellow	dzeĩtāns	geltõnas	geltainas	*žyltǔ
90	white	balts	bāltas	gailis	bělnǔ
91	black	mēļns	júodas	kirsnas	*čǔrnǔ
92	night	nakts	naktis	naktis	*noktǔ
93	hot	kafsts	kārštas	"gorme"	*gěrnǔ
94	cold	aũksts	šāltas	saltas	*xoldǔnǔ
95	full	piļns	pilnas	pilnas	pǔlnǔ
96	new	jaũns	naũjas	naunas	novǔ
97	good	labs	gēras	labas	dobrnǔ
98	round	apaļš	apvalùs		krqqlǔ
99	dry	sāuss	saũsas	sausas	suxǔ
100	name	vārdš	vaĩrdas	emnens	*jǔmǔ

The customary count of word matches by language pairs yielded the following percentages:

	Latv	Lith	Pr
Slav	47	49	59
Pr	51	57	
Li	68		

These figures suggest a dialect chain in the following areal configuration:

		Latvian
Slavic	Prussian	Lithuanian

but do not provide a basis for subgrouping, other than putting Latvian and Lithuanian together as East Baltic—an utterly non-controversial point. There is certainly nothing in these figures

to suggest a special status for Slavic. On the basis of lexicostatistics, Slavic is plainly another Baltic language, closest to Prussian, but no closer than Prussian is to Lithuanian.

Normally our inquiry would end at this point, since innovation is not a lexicostatistic concept. We know, however, a great deal about these languages. Thus, in the case of word 55 'to eat' we can state with certainty that *válgyti* is a Lithuanian genteelism, along the lines of 'to partake of refreshment,' relegating the old word *ésti* to the meaning 'eat, said of animals.' There is no reason why we cannot use this sort of comparative evidence in conjunction with lexicostatistics to further clarify the relationship between the four languages.⁶

Within the confines of the 100-word list, this means looking at subsets of words where one language disagrees with the other three. There will be four such lists. We should likewise look at instances where two languages jointly disagree with the other two. There will be six such lists.

Addressing ourselves to the first set of lists, where one language disagrees with the other three, the Lithuanian list is the shortest, consisting of one item only, which has just been discussed.

Latvian is the odd language out on six occasions: words 14, 29, 30, 41, 43, and 96. Of these, only 30 represents an ancient retention; the rest are Latvian innovations.

Prussian is the only language to disagree on five occasions: 60, 69, 74, 77, and 82. Two of these disagreements could be Prussian innovations: 60 and 69; the rest are indisputably ancient.

Slavic is the only language to disagree on six occasions: 11, 17, 19, 21, 26, and 73. Of these, 11 and 73 seem ancient; the rest look like innovations.

Given the small numbers, little can be concluded from the above. Lithuanian is apparently least likely to innovate on its own. Prussian and Slavic between them retain the old word in five instances, whereas Latvian and Lithuanian between them do so on only one occasion.

Looking at words shared by two languages only, let us first look at Latvian and Slavic. Only two words appear on this list: 18 and 42. In 18, the Slavic form is more likely to be an innovation, and the Latvian form may well be a loan from Slavic. In 42, both *dant-* and *zanb-* are comparably ancient shapes for 'tooth.'

Lithuanian and Slavic share no forms.

The list shared by Prussian and Slavic is impressive: 16, 24, 44, 45, 46, 54, 59, 86, 91, 100. Of these ten, eight are almost certainly conservative, namely: 16, 24, 44, 46, 54, 59, 91, and 100.

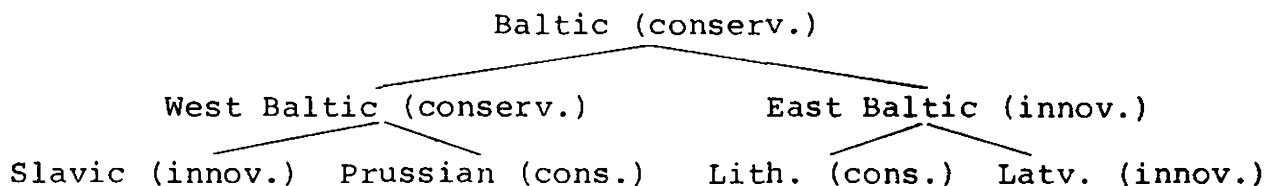
In the word for claw, the *t*-suffix could be an innovation, as could be 86.

A comparably large list links Latvian and Lithuanian: 15, 24, 45, 46, 54, 59, 76, 79, 100. Of these, 15, 24, 46, and 100 cannot be ancient; truly old are only 45, 59, and 79.

The remaining two lists—Latvian-Prussian (with two words) and Lithuanian-Prussian (with four) add little to the above. In the Latvian-Prussian list, 61 could represent independent innovations, proceeding from 'to finish' to 'to kill.' In 97, however, Latvian and Prussian make up the background, against which Li. *gēras* is an innovation.

In the Lithuanian-Prussian list (18, 42, 62, and 66), only 66 looks like a clear innovation.

The overwhelming impression is that we have to do with the following genetic relationship:

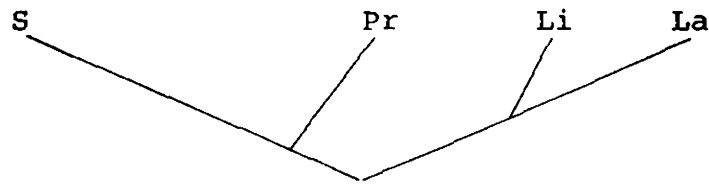


Some notes of caution need to be added. Since the Slavic in this discussion dates from about AD 900 and the remaining languages from about AD 1500, the numbers that involve Slavic are apt to be somewhat higher than warranted. We must also keep in mind that Baltic as a branch is a much more tenuous concept than, say, Germanic. Within Baltic, furthermore, West Baltic is less of a unity than East Baltic (again by virtue of WB being the background against which EB has innovated). Finally, within WB, while Slavic can be positively defined, Prussian cannot.

Caution aside, the main points of this article seem to stand. Slavic is a West Baltic language,⁷ at least in the absence of more attractive alternatives. And when comparative method leads to equivocal results, lexicostatistics can provide a reason for subgrouping even well-studied languages.

* * *

Is there any reason to retain the term Baltic in its established sense?—Probably so, in view of the fact that Slavic has evolved very rapidly away from its West Baltic origins, and that contemporary Slavic languages look very different from Prussian, Lithuanian, and Latvian. One possible visual representation of the internal relationships within the Baltic branch is as follows:



where the lines indicate early divisions in the dialect group, and the notches in the envelope indicate current distance.⁸ Furthermore, the profession of linguists that study this branch is divided into those that study Prussian, Lithuanian, and Latvian and call themselves Baltists; and those that study Slavic and call themselves Slavists. This reflects a division of labor and not one of principle (cf. Anthropology and Sociology.).

Shouldn't the ambiguity between Baltic (in the wider sense) and Baltic (in the narrower sense) be cleared up by re-naming Baltic (in the wider sense) as Balto-Slavic—a term long proposed for just this configuration? There are no *à priori* objections to this; however, if a branch has subbranches called East Baltic and West Baltic, its obvious name should be Baltic. Furthermore, 'Balto-Slavic' would carry with it the suggestion that the branch is composed of two subbranches, 'Baltic' and 'Slavic.' No confusion should arise in practice, since discussions of 'X as an innovation in Baltic' will hardly ever come up, in either the narrower or wider sense.

Accordingly, I suggest that we should give the term Balto-Slavic the decent burial that it deserves, and leave it to the practice of the scholars of the profession to evolve an alternative nomenclature, if such should prove necessary.

NOTES

1. Thus, Oswald Szemerényi lists fourteen purported innovations in his "The problem of Balto-Slav unity—a critical survey." *Kratylos* 2.97-123 (1957).
2. As, e.g., Alfred Senn in his "The relationship of Baltic and Slavic," pp. 139-51 in Henrik Birnbaum and Jaan Puhvel, eds, *Ancient Indo-European Dialects*. Berkeley and Los Angeles: University of California Press, 1966.
3. There seems to be very little disagreement on this point. Cf. Senn, p. 143: "I could admit the term 'Balto-Slavic' in the sense of 'Baltic and Slavic' and in the meaning of 'Proto-Indo-European of Northeastern Europe in its last phase.'" Cf. also Chr. Stang in his *Vergleichende Grammatik der Baltischen Sprachen* (Oslo, 1960), p. 20: "Welcher Schluss soll nun aus allen diesen Fakten gezogen werden? Wohl dieser, dass in nachindoeuropäischer Zeit ein balto-slavisches Dialektgebiet existierte, das gewisse Variationen umfasste, und das vielleicht niemals ganz homogen war..." "Methodisch bedeutet dies, dass man kein Recht hat, in allen Fällen mit baltoslawischen Grundformen zu rechnen."

4. There have been previous applications of lexicostatistic techniques to Baltic and Slavic individually: I. Fodor, 'The validity of glottochronology on the basis of the Slavonic languages,' *Studia Slavica* 7.295-346 (1962); Hilda Radziņa, 'Methods of lexicostatistical comparison in linguistic research'—a paper given at the Fourth Conference on Baltic Studies (Chicago, 16-19 May 1974); V. Urbutis, 'Kaip senos lietuvių ir latvių kalbos,' *Kalbotyra* 4.381-6 (1962).
5. The normalized Prussian version mostly follows the phonemicization of Wm. R. Schmalstieg, *An Old Prussian Grammar* (University Park: The Pennsylvania State University Press [c. 1974]). Prussian forms cited in quotation marks are written as they occur in text.
6. A short etymological commentary, keyed to the numbers in the 100-word list, follows. (13) La. *dīzs* still means 'big' in the SW; in Standard Latvian *dīzs* now means 'grand.' Pr. *debīkas* corresponds to OCS *debelъ* 'stout.' (14) La. *iļgs* has narrowed to mean 'long in duration.' Lakenames in *ilg-* suggest that *ilgs* used to mean 'long' in general. (20) Li. *putýtis* means 'chick.' La. *pipele* means 'penis,' *paīpala*—'quail.' (23) The old word for tree has to be **dervo*. Li. *mēdis* has cognates in La. *mežs* 'forest,' Pr. "median" 'forest,' Latin *medius* 'middle,' Slavic *meža* 'boundary.' (24) Old Li. has *semuō* 'spring sowing,' E. Li. has *sēmenys* pl. 'linseed.' (29) La. *mīesa* 'flesh' is beginning to get restricted to idioms. Li. *mēsā* may have been reshaped under Belorussian influence; Zem. *meisa*, however, is inherited. (33) In SW Latvian, *pāuts* still means 'egg.' Elsewhere La. *pāuts* means 'testicle.' La. *uōla* 'egg' probably etymologizes as 'pebble.' Li. *kīausīnis* probably etymologizes as 'shell.' (41) La. *nāss* 'nostril.' (44) La. *puņns* 'snout, animal nose.' Pr. *austo* and Slavic *usta* are duals, conceivably 'lips.' (47) La. *klupt* 'to stumble and fall.' (51) La. *krēkls* means 'shirt.' Is the Prussian form an eliciting mistake? (53) Li. *kēpenys* 'liver' is to *kēpti* 'to bake' as Russian *pečeno* 'liver' is to R. *pečь* 'to bake.' (55) La. *valgs* 'fresh and moist.' (57) Li. *regēti* is also glossed as 'to see.' La. *matīt* means 'to (barely) perceive.' Sl. *svmotriti* means 'to look.' (58) The *gird-/klaus-* distinction is probably the same as between 'hear' and 'listen;' both Prussian forms are glossed as 'hören.' (59) Slavic *znati* and *vedēti* may have differed along the lines of German *kennen* and *wissen*. (61) La. and Pr. *gal-* 'end,' Sl. *bi-* 'beat,' Li. *muš-* 'beat.' (62) La. *mīegs* 'sleep,' Slavic *sopnati* 'to dream.' La. *gulēt* also means 'to lie.' (63) Competing forms include Latg. *maūt* 'to swim,' Li. *māudyti* 'to bathe.' (64) Latgalian has no special verb for 'to fly'; birds run (*skrīn*) through the air; Li. *skrīsti* is cognate. (66) Li. *nōkti* represents a later meaning than 'to come.' Li., Pr. and Latg. use the 'go hither' strategy: *ateiti, pereit, atīt*. (73-74) Sl. *luna* and Pr. "lauxnos" are cognates; "lauxnos" is glossed as 'Gestirne.' (80) In La. *mākt* means 'to overwhelm.' Li. *debesis*, La. *debesis* 'sky' continue the old 'fog' word, cf. Gk. *néphos*. La. *apvilkties* 'to cloud over.' (87) La. *ruds* 'ruddy'; Pr. and Sl. have 'worm' semantics—cf. vermillion and Sl. *žbrvo* 'worm.' (91) Li. *mēlynas* 'blue.' La. *juōds* 'demon.' (93) La. *gars* 'steam.' (96) Here Latvian has innovated in replacing 'new' with 'young.' (97) Li. *labas* now means 'decent, fine.' (98) The La. and Li. forms are derived from **vel-* 'to roll.' (100) East Baltic has innovated in replacing 'name' with 'word.'
7. This proposition is not new. It has been adumbrated in print and has surfaced in private conversations and at international meetings of Slavic and Baltic linguists. It is my understanding that the topic was recently discussed at the Ninth International Congress of Slavists in Kiev in 1983.

8. Following somewhat the visual presentation suggested by Franklin C. Southworth, 'Family-tree diagrams,' *Language* 40.557-65 (1964), but not his method; he uses the envelope to represent late shared innovations; such are not available for Prussian, Latvian, and Lithuanian.

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