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THE OLD PRUSSIAN, LATVIAN AND LITHUANIAN VERBAL CONJUGATIONS

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Before beginning an analysis of the Old Prussian verbal system I must say a few words about the orthography.*) In the past most specialists of Old Prussian seem to have thought that the scribes who copied the Old Prussian manuscripts were expert phoneticians with an ear acute as that of Professor Higgins of My Fair Lady fame. I propose, however, that the Old Prussian orthography is very inaccurate, reflecting the attempts of German ears to hear Baltic languages. Therefore the orthographic renditions must be interpreted. There is no certain way of interpreting these graphic renditions, but the most reasonable view is to compare the Old Prussian forms with those of the attested Baltic languages, Lithuanian and Latvian. I will agree that this method is dangerous also, but I believe that it is a less dangerous approach than to accept at face value the orthographic evidence. In a personal conversation with the great, but now deceased Lithuanian linguist Pranas Skardžius, the latter told me that he also believed that the Old Prussian forms must be interpreted.

I propose here to discuss certain of the Old Prussian verbal personal endings and to compare them with the verbal personal endings of Lithuanian and Latvian.

The first person singular ending is attested with certainty only for the verbal stem *es-* 'to be.' We encounter *as-mai* 'I am' (10 X), *as-mu* (2 X) and *as-mau* (1 X), the last three examples all being from the Enchiridion. (See Endzelin, 1944, 156-157) (Initial Baltic *e-* is frequently represented by *a-* in Old Prussian so therefore we find the stem of the verb *es-* frequently in the form *as-*.) Stang, 1966, 315, notes that the ending *-mai* looks very much like the Greek middle present ending attested, e.g., in the Greek form *phéro-mai* 'I carry.' It is possible, however, that the ending *-ai* represents an Indo-European perfect ending. In Old Church Slavic one encounters the 1st sg. form *věd-ě* 'I know' where the final *-ě* derives from **-ai* or **-oi*. Then perhaps the Baltic ending *-mai* derives from a contamination of the endings **-mi* and **-ai*. (See Endzelin, 1944, 156-157.) Further evidence for the existence of an ending **-mai* is thought to be found in such Old Lithuanian reflexive forms as *duo-mie-s* in which the 1st sg. ending *-mie-* could be derived from an earlier **-mai-*.

Now the fate of Indo-European **-ō* in Old Prussian is far from clear and it is possible that it was rendered by Old Prussian *ā*. Evidence for such an assumption might be Old Prussian *dā-t* 'to give' as compared to Greek *(dī-)dō-(mi)* 'I give,' Lithuanian *dúo-ti* and Latvian *do-t* 'to give' which seem to show an Indo-European root **dō-*. Now let us keep in mind the fact that orthographic *ai* in Middle Low German may well denote just a long vowel, cf., the writing *raid* for *Rad* 'wheel' and *jair* for *Jahr* 'year' as given by Lasch, 1914, 25. In addition it seems likely that Old Prussian scribal habits were derived from those of Middle Low German. Now if one supposes that the *-ai* in *as-mai* merely represents *ā* then the form should be transcribed as *(as-mā)* or *(es-mā)*. The forms *asmau* and *asmu* are in all probability only orthographic variants, possibly somehow reflecting the labialization of the preceding *m-*. Then we might rather see here a contamination of the old athematic ending **-mi* with the thematic ending **-ō*. The Old Prussian form would be paralleled then by actually existing forms such as *asmu* in Latvian dialects and *esmu* 'I am' in Lithuanian dialects. (See Gāters, 1977, 116 and Kazlauskas, 1968, 293.)

Before explaining the above Lithuanian form I would like to say a few words about a proposed Proto-East Baltic vocalic system which appears as given below:

ī	ū
ē	ā

In this system all of the so-called diphthongs are sequences of vowels, e.g., *ei*, *ai*, *au*, *uo* (=ua) and *ie*. In addition all long vowels can be analyzed as sequences of two short vowels, i.e., $\bar{e} = \bar{e}\bar{e}$, $\bar{a} = \bar{a}\bar{a}$, etc. From this analysis we can make the following conclusions: $\bar{e} = \bar{e}\bar{e}$, $\bar{a} = \bar{a}\bar{a}$, *ie* = $\bar{i}\bar{e}$, *uo* (orthographic o in modern Latvian) = $\bar{u}\bar{a}$. Note, however, that the following sequences *DO NOT* exist: * $\bar{e}\bar{a}$, * $\bar{a}\bar{e}$, * $\bar{i}\bar{a}$, * $\bar{u}\bar{e}$ as contrastive elements or sequences. In other words following \bar{a} and \bar{u} only \bar{a} (NOT * \bar{e}) is possible and following \bar{i} and \bar{e} only \bar{e} (NOT * \bar{a}) is possible. To put it still another way the contrast between \bar{a} and \bar{e} is neutralized in position following \bar{e} , \bar{a} , \bar{i} and \bar{u} . Thus finally we can write this neutralized \bar{e} and \bar{a} as A. In sum then: $\bar{e} = \bar{e}\bar{e} = \bar{e}A$, $\bar{a} = \bar{a}\bar{a} = \bar{a}A$, *ie* = $\bar{i}\bar{e} = \bar{i}A$, *uo* (Latv. orthographic o) = $\bar{u}\bar{a} = \bar{u}A$. This morphophonemic alternation can be seen then in the Lithuanian non-reflexive verbal endings as contrasted with the reflexive endings:

	<i>leņkti</i> 'to bend
1st sg. lenkiù	reflexive lenkiú-o(si) (-uA-)
2nd sg. lenki	reflexive lenkí-e(si) (-iA-)
1st pi. leņkiamē	reflexive leņkiamé(s) (-eA-)
2nd pi. leņkiate	reflexive leņkiate(s) (-eA-)

This means then that when the reflexive ending is added in the first and second persons the verbal ending is extended by the morphophoneme A. Perhaps then we could consider the allomorph of the reflexive -As(i) for the first and second person endings. In any case in a kind of general sort of way one can see at least some of the results of this alternation in Latvian also: I quote the following forms from Endzelin, 1923, 733:

lieku 'ich lege' (-u)	liekuôs (-uA-)
liec (-o)	lieciês (-iA-)

One may note that the preterite has used the same principle, even though the 2nd sg. preterite *liki* apparently derives from **likai* (to judge from the Lithuanian counterpart). Thus:

liku (-u)	likuôs (-uA-)
liki (-i)	likiês. (-iA-)

Even in modern Latvian the 1st and 2nd sg. preterite forms show the automatic alternation: -u/-uAsi, -i/-iAsi. To judge from the Lithuanian counterparts the 1st and 2nd plural reflexive endings are new and analogical to the singular.

Now to return to the Lithuanian form *duomies* one finds that the ending -mies does not reflect **mai* at all. Rather -mies is really just -mi (the expected athematic ending) plus -Asi (or -esi). A similar explanation is to be found in Kazlauskas, 1968, 292-294.

The following orthographic variants are attested for the 2nd singular ending: -sei, -sai, -se, -si. The difference between such forms as *assai* (attested 7 X) and *assei* (attested 4 X) 'you are' both from the Enchiridion reflects nothing more than orthographic variation. I would discount the connection between the final -sai and the Greek 2nd singular middle ending -sai.

I had previously not accepted the notion that the Baltic 2nd sg. ending -i, reflexive -ies(i) could reflect an Indo-European ending *-ei. I would no longer discount this possibility because according my current view originally there was no difference between the 2nd and 3rd singular of the Indo-European verb. This view published in 1977 is based partially on Rūke-Dravina's work on child language published in 1959 and Szemerényi's 1972 suggestion that ontogeny recapitulates phylogeny. According to Rūke-Dravina, 1959, at one stage in the development of the Latvian speaking child the 2nd person was still expressed by the 3rd person form. Szemerényi then suggested that the historical development of language might follow the actual development of child language. In any case there is good evidence from Hittite that the 2nd and 3rd person singular were not originally distinguished.

It would be possible then that there was at one time a Baltic 2nd sg. ending *-ei which corresponds exactly to the Greek 3rd sg. ending as in *phér-ei* 'he carries.'

Old Prussian does, however, have a 2nd sg. ending -si in one verb, viz., *giwa-si* 'you live.' This ending can be compared exactly with the -si of Sanskrit *jīva-si* 'you live.' (The Sanskrit form corresponds exactly to the Old Prussian form except that Sanskrit has palatalized the initial Indo-European velar *g^w- to j, pronounced like the j in English *jig*.)

It is possible then to propose that the ending -si was added directly to the stem *es 'to be' and that the resulting *es-si was simplified to es-i, the attested form in Lithuanian es-i' and Latvian es-i'. Possibly such forms as Old Prussian *assai* and *assei* are merely orthographic renditions of esi also.

For the Latvian and Lithuanian verbal forms one may think that in the verb es-i the -i was understood as the ending, since the es- is the verbal stem denoting 'to be' This -i then spread to other verbs replacing an earlier *-si which is attested in the Sanskrit and Old Prussian forms mentioned above. If this is the case such forms as Old Lithuanian *es-ie-gu*, *des-ie-s*, modern Lithuanian *jauti-es*, modern Latvian *jūti-es*, reflexive forms beside the simple non-reflexive forms *jauti*, *jūti*

respectively require an explanation. The explanation is easily supplied if we suppose that the reflexive ending was not just *-s(i)*, but rather *-As(i)*. Then one can propose an analogy with the 1st sg. ending, i.e., *-u : -uAs(i) : -i : x* and $x = -iAs(i)$ or in ordinary orthography *-ies(i)*. If the enclitic *-gu* was added the full form of the ending *-i* was felt to be *-ie*, i.e., *-i* was felt to be the result of a contraction of **ie*, whatever its real origin may have been. In fact then we cannot decide whether the original 2nd singular ending in Baltic was **-si* or **-ei* or a combination of both.

The Baltic languages do not distinguish number in the 3rd person, differently from most of the other Indo-European languages which distinguish at least a singular and a plural, sometimes even a dual number. In Baltic the form of the etymological 3rd singular is used for dual and plural function as well as singular function. The well known Indo-European 3rd singular ending *-t(i)* is attested, cf. Old Prussian *ast* 'is,' Lithuanian *ėsti* 'there is, there are,' Old Prussian *ēit* 'goes,' Old Lithuanian *eiti*, Latvian *iet* 'goes,' (In modern Lithuanian, of course, the 3rd singular form of this verb is *eīna* and the infinitive is *eīti*.) In addition to the ending *-t(i)* a zero ending (or no ending at all) is attested for the 3rd person of all the Baltic languages, cf., e.g., Old Prussian *(po-)sinna* 'recognize,' Lithuanian *žino*, Latvian *zina* 'knows.' An interesting phenomenon peculiar to Old Prussian and not found in the other Baltic languages as far as I know is the addition of the pronoun *-ts* presumably from **tas* 'this one, that one' to denote the 3rd person. We encounter, e.g., *asti-ts* 'is,' *poquoitē-ts* 'wishes,' *billā-ts* 'spoke,' *dīnkau-ts* 'thanked,' *limatz* or *lymucz* 'broke.' (See Endzelin, 1944, 158-159.)

Endzelin, 1944, 159, notes that the 1st plural form consistently ends in the letters *-mai*, e.g., *as-mai* 'we are,' *giwa-mmāi* 'we live,' *turri-mai* 'we have.' Kazlauskas, 1968, 295, suggested the possibility that originally there were the endings **-ma* and **-mi* which were contaminated to form the attested *-mai*. I suggest the possibility that */-ma/* could be represented by the spelling *-mai*. Although orthographic *-ai* may have in general denoted a phonemic long vowel */ā/*, there is no way in which we could be sure that a German could distinguish the difference in length in non-initial syllables (i.e. in syllables which for him would have been unstressed). The very fact that Old Prussian had a different kind of stress system from that with which he was familiar may have given the impression of length when there was indeed no length at all. Endzelin, 1944, 159, suggests that the ending *-ai* was taken over from the singular and substituted in the plural. He also gives the example from the Lithuanian Petkevičius catechism in which Old Lithuanian *esmi* is used with both singular and plural meaning.

Earlier I would have questioned the possibility of a 1st person singular form being used with a 1st person plural meaning. I would have objected that this is typologically quite strange.

At this point I should like to make clear my profound *distrust* of the notions of language typology and language universals. Let us suppose, for example, a certain linguistic phenomenon such as the existence of a nominal case system with seven or eight cases is attested in 20 languages whereas 200 languages do not show any case system. Does this mean that the probability of the existence of a case system in some reconstructed language is only one chance in ten? I would say not, because the existence of languages is dependent upon the existence of populations speaking these languages, not on the nature of the languages themselves. It is possible to imagine that populations speaking languages with case systems would be utterly destroyed by a plague or a war or some political crisis. In this case there would be no populations left at all speaking languages with nominal case systems. Could one say that this renders languages with case systems impossible? The number of attestations of a certain linguistic phenomena depends upon historical circumstances which have, as far as I can see, nothing to do with the structure of the languages. The German knights were quite successful in destroying some of the Baltic languages, but I don't think that this makes Baltic languages less possible in a typological sense.

In this regard I should like to quote Bernard Comrie who wrote, 1978, 393, that the scarcity of syntactic information has biased our view of the phenomenon of ergativity. According to Comrie (op. cit.) the availability of a description of the syntax of Dyirbal (an Australian language) . . . "has revolutionized our view of ergativity, since for the first time it has become apparent that there is a language with near-consistent syntactic ergativity." (I will explain briefly the phenomenon of ergativity, although it is not essential to the purpose of this paper. Most of the languages which we commonly know, e.g., most of the Indo-European languages such as Lithuanian, Latvian, English, German, Russian and Swedish are nominative-accusative languages, i.e., the subjects of both transitive and intransitive verbs are in the nominative case and the objects of transitive verbs are in the accusative case. Greatly oversimplifying, one can define ergativity as a syntactic phenomenon such that the object of a transitive verb and the subject of an intransitive verb are in one case (which can be called a patient case) and the subject of a transitive verb is in a different case, usually some kind of agentive case. An ergative language may have a case structure as illustrated in the sentences below:

The meat (patient case)	cooks. (intransitive verb)	
The man (agentive case)	cooks (transitive verb)	the meat. (patient case).

Now it is not only Dyirbal which shows these characteristics, but other languages as well. In any case there are certain other characteristics of Dyirbal which render it unique among ergative languages. It seems quite possible, however, that the Dyirbal population could have disappeared without a trace and our notions of ergativity would have remained unhampered by new facts. There seems to be no way of knowing, however, that the languages which do exist exhaust the number of possible languages. The mistake of specialists in language typology is to believe that the range of the existing

exhausts the range of the possible. Thus the existence of a certain linguistic phenomenon assures that the phenomenon is possible, but the lack of the existence of the phenomenon does not assure us that it is impossible.

An interesting sidelight, but not related to the main theme of this paper is the fact that the Basque language, probably one of the aboriginal languages of Europe, is an ergative language. It seems clear that the Indo-European invaders wiped out or assimilated other native populations of Europe, which may also have had ergative languages (providing that they were related to Basque). I trust that no one would wish to infer that since the Indo-European invaders spoke a nominative-accusative language such languages are more fit for survival than ergative languages.

Thus I cannot discount, as I did previously, the possibility that the 1st singular form could have been used as a 1st plural. Indeed, there even seems to be an example of this from English dialects. According to Wright, 1905, 297, in the English dialects of east and south Hertford, Kent, Surrey, Devon and Cornwall 'm is used as a predicate instead of are for the pronouns *we*, *ye*, and *they* and Wright gives as an example *wem* 'we are.' I would also like to note the fact that in Middle Persian the 1st singular and plural are sometimes expressed by the same form, at least orthographically. (See Henning, 1933i34, 232 and 235.) I would also point to the French dialect form *j'allons* (for *j'allais*) 'I went' in which the 1st plural verb replaces the 1st singular verb form.

In any event I would withdraw completely what I said in my *Studies in Old Prussian* (1976, 239) concerning the unlikelihood of the use of the 1st singular form with a 1st plural meaning. I must confess that I have been too much influenced by the common claim that the 3rd singular form is the starting point for all analogical developments. In some cases it is, but it is not always the case. Here as elsewhere the search for linguistic universals has been a brake on research, not a help.

According to Endzelin, 1944, 159-160, in Old Prussian the forms of the 2nd plural end in *-ti* or *-ty* (1st Catechism) about 80 times, in *-tei* nine times, in *-tai* eight times in *-te* four times and in *-ta* once. Berneker, 1896, 219, supposes that *-ti* goes back to an ending **-tē*, cf. the Lithuanian reflexive *-tēs* and Latvian dialect *-tē-s*. But as we have seen above the Lithuanian ending *-tēs*, Latvian *tēs* merely reflect the form *-te* plus *-As* and do not assume an earlier **-tē* which was an Indo-European inheritance. I suspect that all of the Old Prussian forms are merely orthographic variants.

If, however, the forms in *-tai* and the form in *-ta* are not merely scribal variants for *-tei*, one might suggest that they are old dual forms, cf. the Lithuanian dual ending *-ta*. There is little reason to suspect this from the actual occurrence of the forms in the Old Prussian texts. The chief reason for making such an assumption is that in general if the dual disappears as a productive category it may be confused in function with the plural for a time. Thus it is common to ascribe the Germanic 1st plural pronoun represented by English *we*, German *wir*, Swedish *vi* to an old dual form, cf. Sanskrit 1st dual pronoun *vayām* 'we two.' The other reason for positing a dual ending would be to explain a formal correspondence between a possible Old Prussian ending */-tā/* or */-ta/* and Lithuanian *-ta* (possibly, but not necessarily to be derived from earlier **-tā* which seems to be attested in the Slavic 2nd dual ending *-ta*). Endzelin, 1923, 554, writes that the Latvian 2nd plural ending *-tā-[s]* either reflects an original dual ending (the dual has disappeared as such in Latvian) and could be exactly equivalent to the Lithuanian reflexive 2nd dual ending *-tō-[s]*, nonreflexive *-ta*, Slavic *-ta*, or else the Latvian reflexive *-tā-[s]* is formed on the pattern of the 1st plural reflexive *-mā-[s]*. Endzelin also notes the Old Prussian 2nd plural imperative *seggīta* which occurs in the sentence (Trautmann, 1910, 61, line 7):

ious	Rikijai	seggīta	stansubban	Deigi
ir	Herrn	thut	dasselbige	auch

(German word order *auch dasselbige*)

"You masters do also the same."

Although it seems highly unlikely to me, I suppose that it could be argued that the ending *-tai* represented a dual ending in the following three collocations. The first two below are from the marriage service.

1. (Trautmann, 1910, 63, lines 34-35):

Stankisman kai	ious	wans abbai ēnstan	Salaūbai	boūsennien	podāuns astai.
Weil	ir	euch beide in den	Ehestandt		begeben habt.

'Since you have entered into holy matrimony . . .'

Since *astai* here used as an auxiliary for the perfect tense presumably refers to the man and woman who wish to be married, this might be understood as a dual form. However, at the end of the same line we encounter the imperative *kirdijti* 'hear' (referring to the same couple) with the customary ending *-ti*.

2. (Trautmann, 1910, 67, line 27) *taukinnons astai* 'gelobt habt, have plighted.' Again this appears to refer to the couple to be married.

3. (Trautmann, 1910, 75, line 35) *astai poquōtīuns* 'begert habt, have desired.' The sentence is directed to the child's godparents, possibly two.

Notice that in each of the three examples *astai* functions as the first element of an auxiliary verbal construction, but the second element (1) *podāuns*, (2) *taukinnons*, (3) *poquōtīuns* seems to be in the nominative singular masculine. In none of the other examples of the occurrence of verbs with the ending *-tai* for the 2nd person could a dual meaning be justified in any way. The only possible reason for positing an Old Prussian 2nd plural or dual ending */-tā/* would be the formal parallelism with the dual endings of Lithuanian and Slavic (and perhaps Latvian).

The Old Prussian verbal system did not differ very much from the verbal systems of the attested modern Baltic languages. Thus I would classify the Old Prussian verb by the same characteristics that are used for Lithuanian and Latvian. Fundamentally we have four conjugations in the three languages. The first conjugation of both Lithuanian and Latvian is the etymological **e/o-* or thematic conjugation and is represented by verbs such as Lithuanian *ima*, Latvian *jēm*, Old Prussian *imma* 'takes.' Unfortunately what is usually called the Lithuanian 2nd conjugation is called the Latvian 3rd conjugation and vice-versa. Thus Lithuanian *sédėti* is 2nd conjugation, whereas the Latvian counterpart, to judge by Gāters, 1977, 129, is *sédēt* 'to sit' of the 3rd conjugation. I have chosen the Lithuanian system for my classification of the Old Prussian verb and have called the cognate Old Prussian verbs 2nd conjugation verbs, cf. Lithuanian *mýliu mylėti* 'to love,' Latvian dialect *mīlu, mīlim*, and the Old Prussian 3rd person *milē* which I would transcribe as */mīlī/* in spite of its orthographic form. This conjugation is characterized by *-ī-* in the present tense as opposed to an infinitive in **-ētei*. (In the case of this particular verb the Old Prussian *milē* could reflect an original final *-ē* and be a contraction of a form which had passed into the **-ēja* conjugation, cf., e.g., Latvian *mīlēju*, etc. as quoted by Endzelin, 1923, 613.) But on the basis of evidence from Lithuanian and Latvian I assume that at least at one time a 2nd conjugation also existed in Old Prussian. This conjugation corresponds grosso modo to Slavic class IVB, i.e. the type of Old Church Slavic *viděti* 'to see.' The Lithuanian 3rd conjugation is characterized by a final *-ō* (deriving from Proto-Baltic **-ā* in the present tense). This is represented in the following verbal forms (2nd plural) Lithuanian *žino-te*, Latvian *zinā-t* 'you know' Old Prussian *ersinna-ti* 'you recognize.' Although the conjugation of the Latvian verb corresponds well with the Lithuanian cognate, the verb itself in Latvian is in a special category. (See Endzelin, 1923, 618.)

I have labeled the athematic conjugation represented by such verbs as *es-* (with the more frequent variant *as-*) as the fourth conjugation. This is an arbitrary label on my part.

I will return now to the thematic verbs which I label the 1st conjugation. From the Indo-European point of view the thematic vowel or the vowel which immediately precedes the verbal ending was **-o-* in all numbers of the 1st person and perhaps in the 3rd person plural. Elsewhere the thematic vowel was *-e-*. Note the conjugation of the Greek verb for 'to carry' given below:

Singular	Dual	Plural
1st phér-ō (from <i>*-o-m</i>)	None	phér-o-men
2nd phér-e-is	phér-e-ton	phér-e-te
3rd phér-e-i	phér-e-ton	phér-o-nti (Doric form)

(The thematic vowel is the vowel, either *-e-* or *-o-* which immediately follows the root *phér-* and precedes the verbal ending, 1st person singular *-m*, 2nd person singular *-is*, 3rd person singular *-i*, etc.)

If Indo-European **-ō* is indeed represented by Old Prussian **-ā* then such a form as *imma* found in the phrase (Trautmann, 1910, 67, line 22) *As N. imma tin N.* 'Ich N. neme dich N., I, such and such, take thee, such and. such' might be a 1st singular form */im-ā/* corresponding exactly to Lithuanian *imù* or Latvian *jēmu*, in which the final *-u* derives from **-uo* (which in turn comes from Indo-European **-ō* and corresponds very nicely with the Greek 1st singular ending *-ō* given in the paradigm above).

It is these etymological thematic verbs which represent the 1st conjugation of Lithuanian, Latvian and, in my opinion Old Prussian.

The 3rd person of such thematic verbs is well represented in Old Prussian, e.g., *ertrepp-a* 'transgress,' *senrīnk-a* 'gathers' which I would phonemicize as */sanrénka/* partially on the basis of the cognate Lithuanian word *sureñk-a* 'gathers.' Sometimes in the 3rd person if there is a preceding velar or labial consonant we find the final *-a* written as *-u* (probably showing labialization of the preceding consonant), e.g., *gīw-u* (although translating a 2nd singular) vs. *gīw-a* 'lives,' *polijnk-u* 'remain' vs. *polīnk-a* 'remains.'

In Lithuanian and Latvian (and I believe also in Old Prussian) the etymological difference between the **-e-* and **-o-* thematic vowels has been lost. It must be kept in mind that Indo-European **-o-* is represented by *-a-* in the Baltic languages and we find this vowel, where from the point of view of other Indo-European languages we find *-e-*, cf. Lithuanian *nėš-a-te*, Latvian *nēs-a-t* but Greek *phér-e-te* 'you carry.'

In Latvian and Lithuanian if the 2nd singular ending derives from **ei* and is to be compared with the Greek 3rd singular ending (*phér-)**ei*, then the thematic vowel **-e-* may be retained here. On the other hand we cannot be certain that the

Lithuanian 2nd singular ending *-i* derives from an earlier **-ei* (because, as we have seen above, the reflexive ending *-ies* may be analogical) and there is also the possibility that the East Baltic diphthong *-ie-* derives from **ai* as well as **ei*. Essentially, however, we find an *-a-* thematic vowel where other Indo-European languages have an *-e-* or an etymological representative of an Indo-European **e*. The reason for the unification of the thematic vowel in Baltic is to be sought in the loss of a **/j/* before a following */e/*. In addition to verbs of the type of Lithuanian *neš-a* 'he carries' there were also verbs which had a **/j/* following the root and before the thematic vowel. This **/j/* was lost completely in case a following thematic vowel **-e(-)* was present. E.g., a form **geid-j-e* would have passed to **geid-e* and the distinction between the **je/o-* and **e/o-* stem verbs would have been lost completely. Thus there would have been no way to distinguish verbs of the type **geid-e* from forms of the type **neš-e*. On the other hand the original distinction would have been maintained in those forms such as the 1st person plural which had an original *-a-* from Indo-European **-o-*, i.e., **geid-j-a-me* vs. *neš-a-me*. Thus to maintain this distinction the thematic vowel *-a-* replaced the *-e-* giving **geid-j-a* (to modern Lith. *geiðžia* 'he desires') vs. *nėš-a* 'he carries.' (See Schmalstieg, 1970.)

As in Lithuanian I suspect that in Old Prussian the phoneme */a/* was fronted following */j/* or a palatalized consonant. In Lithuanian, for example, a word such as *čia* 'here' represents */čë/*, i.e., a palatalized consonant followed by */e/*.

In a word such as Lithuanian *geiðžia* 'desires' the final *-a* represents a phonemic */e/*. It is just possible that the fronting of an old */a/* is reflected in such spellings as Old Prussian *gēid-e* and *giēid-i* 'wait.' Another verb in this category is Old Prussian *et-wiērp-ei* 'forgives' in which the final *-ei* might again represent */e/*. This also was probably originally a **je/o-* verb, cf. the Lithuanian 3rd person *verpia*, Latvian *vērpj* 'spins.'

On the other hand there seem to be clear cases where orthographic *-e* and *-ei* do not seem to represent a fronted vowel at all. One of the subvarieties of the 1st conjugation contains the suffix *-in-*. According to Endzelin, 1948, paragraph 379, these verbs are first of all causatives, cf., e.g., Lith. *auginù*, Latv. *aūdzinu* 'I bring up, rear (children),' Lith. *bridinu*, Latv. *bridinu* 'I cause to wade,' and iteratives, especially in Latvian, e.g., Latv. *virinu* 'I keep opening and shutting.' Now there is no reason at all to posit a **je/o-* conjugation for any of these verbs. The expected 3rd person form is attested, for example, in Old Prussian *saddinna* 'puts' which corresponds exactly to Lith. *sodina* 'plants.' On the other hand we actually encounter Old Prussian words with the same suffix such as the 3rd person forms *powaidinne* and *powaidinnei* 'means.' In this case the final *-e* and *-ei* respectively only stand for final */a/*. Not only does the etymological testimony of Lithuanian and Latvian suggest this, but also the orthographic rendering of the cognate Old Prussian 3rd person *waidinna* 'show.'

In the 1st person plural of the **e/o-* verbs of the 1st conjugation we would expect an etymological *-a-* (from Indo-European **-o-*, cf. the Greek 1st pi. *phér-o-men*) before the ending and, indeed, we do encounter such forms as *giw-a-mmai* 'we live,' but it should be pointed out that there exists also the form *giw-e-mmai*, although we have no cause to suppose that this verb was a **je/o-* thematic verb which would show the fronting of the */a/* to */e/*.

We have cause to suspect, however, on the basis of evidence from Latvian and Lithuanian mentioned above that the Old Prussian verb for 'to forgive' was a **je/o-* verb and we should expect an */e/* before the ending. We do perhaps find evidence for an orthographic rendering of */e/* by *-i-* and *-y-* in the following words: *etwērp-i-mai*, *etwerp-y-may*, *atwerp-i-may* 'we forgive.'

On the basis of Slavic and some very minor evidence from Latvian dialects I have called the 2nd Old Prussian conjugation that which has the suffix *-ī-* in the present conjugation (with the exception of the 1st singular which has the suffix **-j-*) and *-ē-* in the infinitive stem. The Slavic cognate verbs belong to class IVB, cf., e.g., 3rd sg. *vid-i-tŭ*, in which the immediate forerunner of the Slavic suffix *-i-* is **-ī-*, the latter form being the present tense of the infinitive *vid-ě-ti* 'to see' in which the immediate forerunner of the suffix *-ě-* is **-ē-*. The cognate class is represented in Lithuanian by such a verb as *gul-ė-ti* 'to be lying down' in which the *-ė-* of the infinitive also represents an earlier **-ē-* (as does Slavic *-ě-* above), but the forms of the present conjugation (with the exception of the 1st singular which has the suffix **-j-*) are represented with a short *-i(-)*. The short *-i* of the East Baltic forms may be the result of a shortening in word-final position in the 3rd person.

The results of this shortening were then transferred to other persons. Thus a form such as the Lithuanian 3rd sg. *gùl-i* 'lies' may derive from **gul-ī*. In Latvian, of course, the 3rd person final vowel was lost so we find the following paradigm in dialects (Endzelin, 1923, 611): 1st sg. *gul'u* (= Lith. *guliù*), 2nd sg. *guli* (= Lith. *guli*), 3rd person *gul* (= Lith. *gùli*), 1st pl. *gulim* (= Lith. *gùlime*), 2nd pi. *gulit* (= Lith. *gùlite*). The minor evidence for an etymological *-ī-* comes from Latvian dialect forms (Endzelin, 1948, paragraph 340): the participles *gulīms* 'slept,' *dzirdīms* and the 2nd plural form *negulīta* 'you do not rest.' In most dialects, however, we encounter a switch to the **jeo-* paradigm, cf. standard Latvian *gul'u*, *guli*, *gul'*, *gul'am*, *gul'at*.

The chief reason for supposing a long *-ī-* in Old Prussian (aside from the Slavic evidence, and the rather slim evidence from Latvian dialects) is that we find the macron on the *-ī-* of the present conjugation sometimes, or a macron on the *-ē-* which seems to stand for the vowel *-ī-*, cf., e.g., *seggītei* 'you do' (Trautmann, 1910, 61, line 1) or *seggēti* (p. 59, line 16), the same meaning. I think that I would be the first to agree that the orthographic evidence is not strong and it is indeed possible that Old Prussian had a short vowel (as attested by Latvian dialects and standard Lithuanian) in the present conjugation. For the infinitive stem in *-ē-* I believe the evidence is stronger, because there we have the complete agreement of East Baltic (cf. Lith. *-ėti*, Latv. *-ēt* and Slavic *-ěti*).

Although there are a few forms of this conjugation which seem to be used with a 1st sg. meaning it is not certain whether they are first singular forms or not. On the basis of the other Baltic languages one would expect perhaps *-ā (if indeed -ā is the Old Prussian outcome of Indo-European *-ō). It is possible then that the form *druwē* 'I believe' is to be phonemicized as /druv'ā/, but this is again pure speculation.

There do seem to be some 2nd singular forms attested, however. I would call attention, for example, to the form *druwēse* (Trautmann, 1910, 47, line 11 and 16) 'you believe' and the form *seggēsei* (p. 47, line 5) 'you do.'

I would phonemicize this ending as /-īsi/ and thus it would correspond almost exactly to the Slavic ending *-išī* (cf. Old Church Slavic *vid-išī*, Russian *vid-išb* 'you see.'). The ending would not, however, correspond to the 2nd singular endings of East Baltic, cf., e.g., Lithuanian *-(esi)*.

For the 3rd person of this class I would posit a zero ending, i.e., no ending at all, just the stem vowel which we have as the final element of all the Baltic conjugations except the thematic conjugation where we have *-t(i)*. As an example I would give Old Prussian *turri*, *turei*, *ture* 'has' which I would phonemicize as /tur-ī/, cf. Lithuanian *tūr-i* 'has,' Latvian *tur* 'holds.'

For the 1st plural I would give such examples as *turrimai* (which could be phonemicized as /turīma/) and (with the exception of the long vowel *-ī-* and the *-a* final) could be more or less compared with Lithuanian *tūrime* 'we have' and Latvian dialect *turim* 'we have' (see Endzelin, 1948, paragraph 341.) For the 2nd plural I would cite Old Prussian *turrite* which could be compared with Lithuanian *tūrīte* 'you have.'

For the 3rd conjugation the basis of classification is the present stem in *-ā-* and the further subdivisions depend upon whether the infinitive stem is in *-ī-* (for class 1) or in *-ā-* (for class 2). An example of a class 1 verb is Old Prussian *klausiton* 'to hear' and an example of a class 2 verb is *ersinnat* 'to recognize.' The first verb corresponds to Lithuanian *klausyti* 'to listen,' 3rd person *klaūso* and Latvian *klāsīt*, *klāsa* (see Endzelin, 1948, paragraph 344).

The second verb corresponds to Lith. *žinoti*, 1st sg. *žinaū*, Latv. *zināt*, 1st sg. *zinu* 'I know.' I know of no good examples of a 1st or 2nd person singular present tense form for any verb of the 3rd conjugation in Old Prussian. A good number of 3rd person forms seem to be attested, however. For example, the 3rd present *posinna* 'recognize' would correspond exactly to the 3rd person present Lithuanian *žino*, Latvian *zina* 'knows.'

A problem which arises here is the rendition of the 1st plural of this root. In one place we find *po-sinn-i-mai* (Trautmann, 1910, 23, line 20) where it translates German *Beten* 'we pray.' In another place we find the root in the word *er-sinn-i-mai* (Trautmann, 1910, 43, line 24) where it translates German *erkennen* 'we recognize.' Endzelin, 1944, 171, compares Latvian 3rd singular *zina* vs. the 1st plural *zin-i-m* 'we know' and writes that the Latvian participles *zinis* and *zinīt* 'knowing' speak in favor of the great age of this construction. (See Endzelin, 1923, 722.) Endzelin continues, 1944, 171, comparing the Sanskrit 3rd singular *jānāti* 'knows' and the 1st plural *jānīmāh* 'we know.' Endzelin, 1944, 172, finds good reason, however, to reject the direct comparison with Sanskrit and to propose an older 3rd plural in Baltic **žin-nt(i)* which passed to *žin-int(i)* with the automatic creation of an *-in-* from an earlier **-n-*. The **-i-* was then abstracted from this sequence and substituted in the 1st and 2nd plural forms, e.g., *zin-i-m* 'we know' replacing in some places *zin-a-m*. Endzelin then proposes that since in Latvian we find the forms *zin-i-m* 'we know' and *zin-i-t* 'you know' beside *zin-a-m* and *zin-a-t* respectively we can thereby explain the Old Prussian 1st plural *ersinn-i-mai* beside the 2nd plural form *ersinn-a-ti*.

I would indeed accept Endzelin's explanation for the Latvian forms, but we should also note that in the 2nd plural we find *ersinnati*. In view of the general faultiness of the transcription of the Old Prussian texts I would rather phonemicize *ersinnimai* as /er-zināma/ and *posinnimai* as /pa-zināma/ respectively.

In general I would present what I have to say as a possible scenario, rather than the absolute truth. I should like here to express my mistrust of such notions as *verifiability* and *provable conclusions*. There are obvious faults with the verifiability theory. For each verifiable statement one must construct a theory to verify it and then another theory to verify the theory of verification and on to an indefinite regression. Proof, of course, is just what one will accept as proof. Proof, like beauty, lies in the eye of the beholder. (Schane, 1976, 184.) One must always keep in mind that we don't know how many languages have disappeared, what kind of attestation there might have been if historical circumstances had been different. If only the modern Romance languages were left, it would surely be a provable conclusion that there were never more than two cases for the noun and four for the pronoun in the ancestor language. (Pulgram, 1959, 423) If the only surviving Indo-European languages were Hittite, German, French and Slovene one would certainly posit an Indo-European periphrastic perfect or pluperfect tense(Cf. Hittite Ú.UL *ku-iš-ki pa-an-za e-eš-ta* Sturtevant, 1951,148); German *Keiner ist (war) gegangen*; French *personne n'est (n'était) allé* Slovene *nihče ni* (from *ne je*) (*od*)šel. In sum then I would say that all linguistics (and perhaps all science) is speculation and that we may present perhaps degrees of likelihood, but never certainty. In the past we have spent our penny's worth of knowledge far too lavishly.

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