

Balto-Slavic Factitive-Iteratives
Bill J. Darden

Balto-Slavic, like most IE dialects, has a class of factitive-iteratives with o-grade ablaut. In Balto-Slavic these verbs have infinitive stems with an *-ī-* suffix. Several items in the oldest layer of the vocabulary agree in both form and specific meaning, e.g. (Russian/Lithuanian) *prosit'/prašyti* 'ask'; *gonit'* 'drive'/*ganyti* 'take care of cattle'; *brodit'/bradyti*[dial] 'wade'; *dělit'/dailyti* 'divide'; *lupit'/laupyti* 'tear off'; *vodit'/vadyti* 'lead'; *vožit'/važyti* 'transport'; *měsit'/maišyti* 'mix'; *měnit'/mainyti* 'change'; *služit'/slaugyti* 'serve'; *vartyti/vorotit'* 'turn'. The present tense forms differ. The Baltic forms have a present stem with **-ā-* ([3rd. sing.] *prašo* < **prošā-*), while Slavic has a present in *-ī-*. (*prosīti*) In Skt. and Greek this class of verbs has present stems with a thematic *-eje-* suffix. The Germanic, Italic, and Celtic factitive/iteratives might possibly agree with Greek and Skt., but because of contractions, it is difficult to be sure. There is no way to phonologically derive the Baltic or Slavic reflexes from these formations. Skt. and Germanic show *-t-* derivatives from these verbs with a preceding short *i*. These are obviously similar to the Balto-Slavic infinitives with long *ī-* plus *-t-*, but again there is no possibility of phonological derivation. (cf. Brugmann 1888, Vol IV, 318-346)

Baltic and Slavic do share some typological similarities with the rest of non-Hittite IE however. In each language, there are similarities between the causative-iteratives and denominal verb formations, with possible differences in accent. The Slavic suffix *-ī-* forms (primarily transitive) denominal verbs. One of the putative sources of the Baltic *-ā-* is a denominal suffix, and in Modern Lithuanian the suffix *-in-*, with differences in accent, forms both transitive denominals and factitives. This connection is not accidental. If the factitive/iteratives were originally denominal, we can easily account for the o-grade ablaut by assuming an o-grade deverbal noun as an intermediate stage (Kurilowicz 1968: 77).

In Skt. denominal verbs, like the factitive/iteratives, were inherently non-aorist stems. Slavists who are unfamiliar with the arguments over the meaning of the aorist/imperfect opposition in PIE can think of the denominals as being inherently imperfective--which they still are in Baltic and Slavic in their primary unprefixated form. This means that insofar as they were associated with verbal meanings which naturally included accomplishments or achievements, they could be given an iterative interpretation, much like derived imperfectives in modern Slavic languages. Even derivatives with the meaning of activity verbs were opposed to simple non-derived activity verbs, and either always had or acquired a meaning of iterativity. Denominals with iterative meaning, derived from deverbal nouns, could easily be reinterpreted as directly deverbal iteratives. The accentual differentiation from true denominals can be secondary.

We could assume that Baltic and Slavic used different denominal formations from the rest of IE, but the basic principle remained the same. The fact that this basic principle has continued to operate can be seen in the fact that both Baltic and Slavic have continued to produce iteratives and derived imperfectives using suffixes which were originally used for deriving verbs from nouns (*-āje-*, *-*auje-*, etc.)

At least for Slavic, if not for the rest of the IE languages, we can argue that the class of factitive/iteratives was a single class of verbs, not two. The basic meaning seems to have been to engage iteratively in agentive activity. I.e. this is a class of 'active' verbs in the sense of Klimov. In most cases, this meaning results in a transitive verb. If the

basic verb is an intransitive change of state verb like *meret'* 'die', or a stative like *ležat'* 'lie', then the result of the addition of agentive activity is a factitive *morit'* 'kill', or *ložit'* 'lay'. If the verb already means to engage in agentive activity, as is the case of motion verbs like, *idti, polsti, brestī, vesti, vezti*, then the addition to the meaning may be merely iteration. An intransitive active verb can stay intransitive. In Vaillant's list of Slavic verbs (1950-74, Vol. III, 410-14), the only intransitive iteratives are from motion verbs. He lists *blōditi* as a derived iterative, but in the intransitive meaning 'get lost', it has the accent of a denominal, not an iterative/factitive (end stress). In the transitive meaning 'spoil (a child)' in S.C. it has the accent of a factitive *blūditi, blūdīm*. The basic meaning of active verb does not exclude the possibility of verbs with causative meaning, although this class does not include three place causatives from transitive verbs. Meanings which can be read as causatives of agentive verbs are rare. Vaillant (III, 417) lists *poiti* 'give to drink' and *doiti* 'milk, suckle'. The former is from *piti* 'drink', while the later is relatable to Skt. *dháyati*, Latv. *dēt* 'suckle'. The unprefixated forms of these verbs in Russian, S.C. and Slovenian show denominal accent (pres. R. *doiš, poiš*, S.C. *dōjīm, pōjīm*, Sln. *dojīm, pojīm*.) This may be secondary. Certainly we have Skt. *pāyáyati*, Ger. *tränken* 'give to drink', Vedic *dhāpáyati* 'suckle', OHG *tāen* 'suckle'. These show that such semantic configurations are possible.

Baltic replaced the factitives by verbs with the suffix *-in-*, or *-dī-*, and there are innovative true 'passive' causatives with the suffix *-din-*. The survivals of the older layer, with *-ā-* presents, o-grade ablaut and no additional suffix, are almost exclusively iteratives, or verbs with no apparent source. We find a few cases of old factitives surviving as reflexives, as *pa-si-baudyti* 'wake up'. Within this archaic layer, we find the same tendency for verbs to be transitive or activity verbs. Skardžius (1943: 529-34) provides a substantial list. The great majority are transitive active verbs. One transitive verb, *matyti* 'see' is not an active verb, but it probably originally meant 'watch'. (Note Slavic *sūmotriti* 'watch'. Both are relatable to the IE root **meH-* 'measure', which survives in Lith. *matas* 'measure' (**mHtos*). This is one of the few cases where we can make a reasonable argument that some verbs of this class in Baltic are denominal.) All but one of the intransitives in Skardžius' list are motion verbs: *brodyti* 'wade', *landyti* 'crawl', *žangyti* 'stride', *plaukyti* 'swim, sail', *slandyti* 'glide, hover'. He includes one activity verb which in modern thought would not be agentive: *snaigyti* 'snow lightly'. Metaphorically, at least, the language often treats natural phenomena as impersonal active verbs. They can even be transitive, as in: *kelią užsnigo* (road-acc. snowed over - past active) "The road was blocked by snow."

In this study, what will interest us is the differences between Baltic and Slavic. I happen to believe in Balto-Slavic as an entity, and I would like to believe that at one time both languages shared the same paradigm. There are several reasons to believe that this should be true. Baltic and Slavic share the innovation of forming the infinitive with a long *-ī-* suffix. They share a past active participle in **-jus-* (OCS fem. *prošīši*, Lith. *prašiusi*) and, assuming that the Lithuanian simple past has a stem related to the Slavic imperfect, they share an imperfect stem **-jē-*, (OCS *proša-aše*, Lith. *prašė-*). It is therefore surprising that the present tenses should look so different.

In the short time available, I can't review the various attempts that have been made to account for the Slavic present. I will just say that I have found none that assumes that Slavic once had a present like that of Baltic. I am going to offer one.

Both the *-ī-* conjugation in Slavic and the *-ā-* conjugation in Baltic are called "half thematic" by Stang (1942:22-30;143-154). To be thematic a verb has to have an ablauting e/o suffix intervening between the root and the ending. PIE had no such thing as a suffixal *-ī-* or *-ā-* serving the same function as the *-e/o-*. It is likely that some of the endings of the thematic inflection were originally different from the active athematic inflection, but the only difference which survives in Slavic is the first sing. thematic *-ǫ*, vs. athematic *-mī*. The only thing the *-ī-* conj. shares with the thematic inflection is this 1st sing. ending. (It is *-ǫ* rather than *-mi*.) It has no theme vowel (e/o). Moreover, the optative (imperative) in **-ī-* cannot be traced back to the thematic optative in *-oi-*. It must come from the long *-i-* associated with athematic inflection. It is also important to note that in Slavic terms the first sing. *-ǫ* is just an ending; it is not a dimorphemic composition of a theme vowel *-o-* plus an ending. It therefore could easily shift from paradigm to paradigm. There are other examples of original athematic inflections which have acquired the originally thematic 1st. sing *-*ō*, including the Baltic short *-i-* inflection, the Lithuanian future, and perhaps the Germanic optative of strong preterits. It seems likely then that we want to trace the Slavic inflection to an old athematic paradigm.

The Baltic **-ā-* inflection looks nearly as athematic as the Slavic *-ī-* conjugation. The first and second sing. endings are based on those of the thematic inflection, but the rest of the present paradigm is built by adding the endings directly to a stem in *-ā-*. e.g.:

prašau (<prošā-ō)	Prašōme
prašai (<prošā-ei)	Prašōte
prašō (<prošā)	

In Germanic, Latin and Greek, we find classes of denominal verbs with a suffix *-ā-*. In all these language there seems to be variation between apparent athematic inflection and thematic inflection with *j* plus the theme vowel added to the long vowel (cf discussion in Guxman et. al. 1962-6, Vol IV: 378-385). Lithuanian has the same variation. In addition to the 'half-thematic' *-ā-* inflection, it shares with Slavic a productive class of denominal verbs with the suffix *-ā-je-*. The seemingly athematic inflections have other possible interpretations. However, Hittite has an unambiguously athematic suffix *-ah-* which forms denominal factitive verbs. Since *-ā-* comes from **aH-*, we have clear evidence for an IE class with this shape.

Although verbs with **-ā-* are normally denominal, there are examples of apparent deverbal formations in other IE languages. Germanic is the branch of IE which is lexically closest to Balto-Slavic. Normally it is the verbs of the Germanic Class I weak verbs which are compared to the Indo-European factitive iteratives. However, Class II, which is made up of verbs with the *-ā-* suffix, has a few deverbal formations (Guxman et al, vol IV: 180). Several of them have Balto-Slavic cognates or parallel formations. These include: Old Saxon *frāgon* Lith. *prašyti* R. *prosit* 'ask'; OS *giwaldon*, Lith. *valdyti* 'rule'; OHG *lehhôn*, Goth. *bilaigōn* Lith *laižyti* 'lick'; ON *vaga*, OE *wagian*, OHG *wagōn*, Lith. *važyti*, R. *vožit* 'transport'; OHG *weibōn* 'rock', Lith. *vaipytis* 'grimace'; OHG *sagōn* 'say' (from De Vries), Lith *sakyti* 'say', R. *sočit* 'seek'; OHG *manōt* 'understands', Lith. *manyti* 'think of', Latv. *manīt* 'take note of'. There is also Slavic *kupiti* 'buy', apparently borrowed from Gothic *kaupōn* 'conduct business'.

There are a set of interlocking connections between the Slavic \bar{i} - and the Baltic \bar{a} - inflection. In the descendants of the PIE (athematic) perfect, the class of *mīnēti, mīniš*, Lith. *minėti, mini*, the Slavic long \bar{i} - is related to Baltic short $-i-$. The source of this inflection is fairly well understood, although I don't have time to go into it in detail. Basically, the paradigm was rebuilt from the third person. The perfect, 3rd. sing $-e$ plus the present marker $-i$ yield Slavic long \bar{i} -. In the third plural syllabic n plus t yields $-inti$, which could be morphophonemically $-\bar{i}nt-i-$. The long \bar{i} then spreads throughout the paradigm. In Baltic the short $-i-$ of the $-int$ 3rd. pl. first spread throughout the plural, then to the third singular. Within this class in Baltic, $-i-$ presents are in variation with \bar{a} -presents. There are indications of an older paradigm with singular \bar{a} -, plural with $-i$ č (Latv. dial. 3rd. per. *zina*, 1st. pl. *zinim*) This is the result of ablaut within the paradigm. The long \bar{a} - of the third sing. is from stem-final $*-oH_a+$ the perfect ending $-e$. The plural had zero grade, so the laryngeal disappears between a consonant and a vowel. The short i in the plural then comes from the third plural syllabic $n + t$., as it did in the rest of the perfects. Cf. Kuryłowicz (1964: 80-84), Jasanoff (1978: 101). Schmalstieg (1959), Endzelins (1928).

Although I certainly have not proved it here, I will ask you to accept the claim that in the class of old perfects, we find Slavic long \bar{i} - inflection and both short $-i-$ and long \bar{a} - in Baltic. We find one case of athematic \bar{a} - in Slavic in this class--the verb *imamī*, 'have' which has the semantics of a perfect from $*im-ti$ 'take'.

We can represent the interlocking relationships in the following diagram:

	Factitive-Iteratives	Old Perfects
Slavic	\bar{i} -	\bar{i} - (<i>imamī</i>)
Baltic	\bar{a} -	\bar{a} -/ i -

It is easy to see that a blanket replacement of \bar{a} -presents by \bar{i} -presents would handle two aspects of the differences between Baltic and Slavic.

I am going to propose a Balto Slavic paradigm for the factitive iteratives as:

Present stem:	wodā- (athematic)
Optative	wodī-te (\bar{i} - spread to singular from plural)
Infinitive aorist stem-	wodī-
Imperfect stem	wodjē-
Past part.	wodjus-

Note that all of these forms are attested in one or both of the languages. The present stem is found only in Baltic, while the optative is found only in Slavic. The other stems are in both, although the infinitive/aorist stem is only used for the infinitive in Baltic. The Baltic athematic present apparently justifies the Slavic athematic optative in \bar{i} -.

There are some problems with this reconstruction. In Balto-Slavic terms, it is very odd for the optative (imperative) not to have exactly the same stem as the present. (The actually attested optatives in Baltic have $-ai-$, not \bar{i} -.) However, the single surviving verb with \bar{a} - present in Slavic, *imamī*, is morphologically odd precisely in that it does not have an imperative based on the present tense stem. It has an imperative *imēi*, based on the infinitive/aorist stem $-imē-$ plus $*-joi-$. This cannot have been the original

imperative. It probably replaced an older proper athematic imperative which would have been sing. **jīmlī*, pl. *jīmite*. We thus have an argument for the existence of a paradigm with an overt *-ā-* suffix **only** in the present.

In superficial IE terms, we could justify saying that the optative and the present did have the same stem. The suffix was **-aH_q-*. The optative suffix (**-jē-/-ī-*) was added to the zero grade of the preceding element. The zero grade was simply *-H-*, and the laryngeal in this environment would disappear without a trace.

In a less superficial treatment, however, we still have a problem in IE. Secondary suffixes of this type are not supposed to ablaut--particularly when the suffix is added to the o-grade of the root. However, we have already seen evidence for ablaut in *-ā-* presents in Baltic--namely the Latvian paradigm *zina, zinim* 'know' mentioned above. (The evidence that *zina* has a **secondary** suffix is the fact that the vowel is **ā*, not the etymologically correct **ō* from the stem-final laryngeal.) Moreover, there is an almost exact parallel to this ablaut pattern in Greek dialects, and a near parallel in Tokharian.

We mentioned above that in Greek there is variation between athematic inflection of denominal derivatives with *-ā-*, and thematic inflection with **-āje-*. In Greek, the intervocalic *j* disappeared, resulting in contraction of the two vowels. Since this results in the absorption of the thematic vowel, it is easy to believe that the athematic inflection might be secondary. However, some dialects have an athematic optative as well. Buck (1928: 114) cites opt. *sulaiē* from the stem *sulā-*, and *oikeiē* from *oikē-*. These are exactly like the inherited athematic optatives *histaiē* from *histē-* < **sistā-* and *titheiē* from *tithē-*. Here the short *a* and *e* before the optative suffix *-iē* represent the Greek zero grade of the long vowels of the stem. This then exactly parallels the putative relationship between Baltic present **vodā-*, and Slavic optative *vodī-*.

In Tokharian the optative is built on the subjunctive stem, rather than the present stem (Krause and Thomas 1960: 221, Adams 1988: 51). The Tokharian subjunctive is not the descendant of the PIE subjunctive. It is at least in part made up of forms which were once indicative forms and have been replaced in their indicative use by new formations (Adams 1988: 50-1). The optative itself does reflect a directly inherited PIE form, with the **-ī-* of the plural and dual generalized throughout the paradigm. Of particular interest are the subjunctives with the suffix **-ā-*. In Tokharian A these stems have the same relationship with the optative as we have postulated for Balto-Slavic. From the stem *tārk-* 'release' we find Tokharian A 2nd sing. present *tārnāt* (Adams 1988:70), subjunctive 2nd. sing. *tarkat* < **torkāta*, optative 2nd. sing. *tārkīt* < **trkīta* (Adams 1988:80).

There are further interesting formal parallels between the Tokharian *-ā-* subjunctive and the Baltic *-ā-* presents. Both are connected to perfects. We have noted above the fact that many Baltic presents with *-ā-* are the descendants of perfects. This suffix is only marginally used to form presents in Tokharian. It is used to form preterits. (Baltic also has *-ā-* preterits.) One can speculate as to whether this suffix was originally a preterit suffix, or, as Benveniste (1961) suggests for Latin and Celtic, was a modal form which spread to the preterit. The Tokharian preterit itself represents a merger of the PIE perfect and aorist/imperfect. Adams notes that the subjunctive in *-ā-* is often formed from historically **perfect** stems. These formations take two forms. In one paradigm type, the *-ā-* is added directly to the perfect stem, preserving the old pattern of ablaut, with o-grade in the singular, zero grade in the plural. **Tarkā-* is of this type, with (2nd.) sing *tarkat*, pl. *tārkac*. Here *tark-* represents o-grade, while *tārk-* represents zero grade.

Another pattern is to retain the o-grade vocalism throughout. This paradigm is very poorly attested, but Adams cites evidence for a stem *paikā-* 'write'. This is formally a parallel to the Lith. derivative *paišyti, paišo* 'draw'. While Adams may be correct in relating these forms to perfects, with analogical leveling of the ablaut, they might also have the same source as the Baltic iteratives.

The Greek and Tokharian parallels should certainly encourage us to think that such a paradigm was possible in Balto-Slavic. We know that ablaut stayed productive for a long time in Balto-Slavic, and that new patterns of ablaut evolved. We can hardly discount the possibility that ablaut or the patterns which resulted from ablaut might spread to secondary suffixes--perhaps in this case through the merger of the two classes with *-ā-* presents. In this case the resulting pattern which we are talking about is the presence of a long vowel suffix in one stem of a paradigm and its absence in another. There are certainly plenty of examples of that kind of stem variation in suffixation in Slavic. The oddity here is that the long vowel is in the present, not in the aorist, and that may have encouraged its elimination.

With these qualifications, we can argue that the paradigm given above is reasonable for Balto-Slavic. Obviously the present stem is quite different from the rest of the paradigm, all of whose stems contain a long *-ī-* or a *-j-* which could come from *-i-* before a vowel. Significantly, there was already, in the old perfect class, a present inflection based a *-ī-* suffix. We could simply propose a paradigmatic leveling. A leveling from the aorist is, however, unlikely. Differences between the aorist/infinitive stem and the present stem were not only tolerated, but encouraged. If the aorist stem were used as the basis of the present formation, we would probably expect a suffix *-je-* suffix added to the aorist stem. This is what we do find in the replacement of *imam* by *imeju* in Russian. However, if we can justify the optative in *-ī-*, it might be a better source of the present *-ī-*. Optatives are supposed to have the same stem as the present. Formally, the *-ī-* optative has the same relationship to the *-ī-* present as the thematic imperfect has to the thematic present- i.e. the *-ī-* present looks like a form derived from the opt. by adding the present marker *-i* in the second, third sing and third pl., adding *-ō* in the first sing:

Imp:	neses	neset	nesont	Opt.	prošīs,	prosīt,	proshint
pres:	*nesesi	neseti	nesonti		*prošīsi	prosīti	proshinti

Depending on how we interpret Proto-Slavic phonology, we might even consider 1st. sing. *prošj-ō* to be a direct continuation of the original 1st. sing. optative **pros-jēm*. If the long vowel in a final syllable survived long enough to undergo the change of **ē* to **ā* after *j*, then this would yield the right results directly. At the very least, this would have produced **prosjē*, which might have merged with the thematic present ending from **-jōm*, and been subject to the same analogy which changed it to *-jō*. The actual optative first sing. which survives is from **-mi*, as in OCS *paděmī, bimī*. There is then a curious interaction between the optative and the present, with the optative taking the present athematic ending, and the present of the *-i-* conjugation perhaps preserving the optative ending. This kind of interaction certainly supports the argument for the more basic interaction which I have proposed.

It is certainly true that formally the optative had the 'secondary' ending characteristic of the past tense, and that we could convert those endings into present tense

merely by adding the enclitic particle *-i*. The formal relationship is however not be enough. We should have some evidence that it is reasonable to suppose that a present could be derived from an optative, or that an optative could be used for a past tense, which then would be a perfectly normal base for the present. The latter seems most likely. There is both typological evidence that optatives and other modals can be used as iterative indicatives (most often pasts), and concrete evidence that the IE optative developed such use.

We have so far referred to the modal form in question as 'optative'. In the literature there is considerable discussion over whether the basic meaning was optative or potential. Since there are purely potential uses, and in an optative, the propositional content is treated as both potential and wished for, 'potential' seems the more basic meaning. Even in historical Slavic, where this form is treated as an imperative, there are enough nonimperative uses that I have argued that the basic meaning at the dawn of historical Slavic was still potential (Darden forthcoming). Typologically potentials and conditionals are often relatable to iteratives. If an action is intermittent over a period of time, we can describe that situation by saying that the action was iterative over the time period, or potential at any time within the period. When the time reference is future (even if the morphological form may be present), there is even more overlap between indicative and potential. The use of the indicative which is most clearly distinct from the potential is the use to describe events or processes which are taking place at the time referred to. This use is precisely not available for a true iterative.

The morphological merger of iteratives and potentials is most common in the past tense. Benveniste (1951), citing parallel development of the English conditional with 'would' (e.g. "We would get up late when/if we could."), argued that the Latin and Celtic subjunctive in *-ā-* are related to an *-ā-* optative, and to the *-ā-* suffix which forms the imperfect in Latin. The Baltic *-ē-* preterit and the identical suffix used to form the imperfect stem in Slavic have been related to the PIE subjunctive (Szemerényi 1990: 279-80). In a case formally parallel to Slavic, Guxman et. al (1962-6, Vol IV:381-3) present a reconstructed Germanic *-ā-* present which has the same formal relationship to an *-ā-* optative as does the Slavic: simply replacing the 'secondary' endings by the 'primary' ones.)

Gołąb (1964a) argues that there is systematic ambiguity among the meanings of potential, counterfactual, and iterative in what he calls the Balkan conditional. This conditional, like that of English, is formally the past tense form of the future, and is found in several Balkan languages. Aronson, in his (1977) article on aspect and mood in Bulgarian, argues for a frequent morphological intersection between expressions of mood and expressions of iterativity. He notes a cross-linguistic tendency for conditionals and iterative pasts to overlap in form, citing forms from English, Serbo-Croatian, and Hebrew. In the body of his article, Aronson points out that the same ambiguity is found in dialectal Bulgarian. Similar connections between futures, past habituais, and counterfactuals in various languages are noted by Lazard (1975).

Aronson argues for a formal and categorial merger of the potential with the iterative present in Bulgarian. In this case the diachronic source of the form is the perfective nonpast. The use of the perfective nonpast to express iterative action is common in Slavic. The semantic progression was almost certainly from potential to iterative. Macedonian has similar phenomena, and is a closer formal parallel to what I am proposing, because in this case the formal expression of iterativity comes from a modal expression. Examples, and a review of the literature are found in Kramer's (1986,

Chapter IV, 74-98) book on Macedonian moods. According to Kramer, the modal particle *k'e* plus a past tense can indicate past iterative activity, future in the past, supposition, or contrary-to-fact conditionals. The same particle plus a nonpast can indicate iterative present, future, supposition, or real conditionals. From Gołab's work, it seems reasonable to assume that this development started in the past, then spread to the present.

The English 'future' with auxiliary 'will' provides similar examples. It normally has a future meaning, but in sentences such as: "Glass will easily break." it is potential or gnomic in meaning. In the sentences: "He will often get up as early as five," and "Whenever we have enough money, we will eat out," it is ambiguous between iterative and potential meaning. Ultimately, the ambiguity between iterative and potential meaning is encapsulated in the ambiguity of "whenever." When we are discussing concrete instances of an activity, it is iterative, when we are discussing general behavior, it is potential. Another English example, provided by Henning Andersen, is: "Boys will be boys." This, however, is better described as a general truth, although any general statement about activity can be interpreted as referring to repeated actions.

We find similar ambiguities in other modal forms, such as imperatives. "Clean up your room," can be a concrete request for action in the immediate future. It can also be a general commandment to be followed whenever necessary. As such, it is both iterative and potential. An optative expression: "Would that he cleaned up his room," or more archaically, "O that he clean up his room (every day)," has the same ambiguity. This can be taken as a wish about iterative activity in the present.

We thus have arguments that ambiguity between potentiality, iterativity, and generality can permeate a modal system. It is therefore typologically reasonable to postulate a morphological intersection between an optative and an iterative.

Most importantly for our argument, we have actually attested uses of the form of the optative in the function of iterative past in Indo-European languages (Szemerényi 1990:281, fn. 5). The most striking example is Takharian B, where the suffix of the IE optative is used with the present stem to form the imperfect, while it is still used with the subjunctive stem to form the contemporary optative (Adams 1988:51). Neisser (1927) noted difficulties in differentiating past indicative functions from potential in the past in Vedic. Pisani (1932), who found a unique preterit use of the optative form in epic Sanskrit, noted similar use in relative clauses in Avestan, and also traces the use to ambiguity between potential and iterative past meanings. Like almost everyone else, he compares it to English expressions with "would". The use of the form of the optative for an iterative past has been widely discussed as a phenomenon in Iranian (Szemerényi 1983:76). Edgerton (1962: 357, fn. 7) notes this use in middle Indic and Buddhist hybrid Sanskrit.

In Slavic itself we find widespread use of the form of the old optative (the modern imperative) to express indicative past functions. Miklosich (1883: 794-7) cites examples from every area of Slavic. They do not occur in older texts. However, we could argue that they might be survivals precisely because of their wide attestation in modern Slavic languages. Certainly, if we had no early Slavic documents, we would use the data from spoken languages to reconstruct such a use of the old optative. As Miklosich notes, they often convey the notion of sudden, unexpected action. A recent paper on Macedonian (Hacking forthcoming) however, shows iterative use in that language. Examples from her paper are: *Legni pa stani, mnogo pati praveč taka*, "He'd lie down, then get up; he did

this many times." *Jas izlezi, vlezi, a Elena gledaj, gledaj, no niv gi nemač*, "I got out and got in, Elena looked and looked, but there was no sign of them."

The imperative in these forms is treated as a non inflecting form with no agreement with the subject. While this could be due to the fact that the forms are new, occurring after the imperative had lost most person markers; it might also be understandable in terms of the history of the optative/imperative forms. Because of the loss of final consonants, the third person singular came to have the same form as the second person, e.g. *čitai, xodi, vedi*. When the third person "imperative" was lost, any survivals in idiomatic usage would look like non agreeing forms with a third person pronoun and a second person imperative form of the verb. In these idiomatic uses, this non agreeing form could have spread from the second and third singular to the rest of the paradigm.

We must seriously consider the possibility that these "indicative" uses of the form of the imperative have an ancient history. Whether they go all the way back to Balto-Slavic is impossible to prove, but, barring a synchronic explanation of such use of imperatives, we should at least go back to the time when these forms had optative meaning. It is significant to note that the surviving form with past meaning are precisely the form with unambiguous 'secondary' endings in the old optative paradigm.

Whatever we make of the preterit uses of the imperative in modern Slavic languages, we have actually attested changes of old optatives to nonpast indicatives in Russian (Rus. *dadim, edim*, Proto-Slavic *xotje-* 'want', maybe OCS *dežde- < děti*). Even though the change of *dadim* and *edim* is fairly late, one can argue that non imperative uses of the old optative had survived in Old Russian until very late (Darden forthcoming).

It therefore seems not at all unreasonable to think that the Slavic iterative present in *-ī-* developed out of an optative, and that therefore Baltic and Slavic may once have shared the same paradigm. In fact, if we push the development of an optative used as a past back into Balto-Slavic, we can account for another innovation in Balto-Slavic morphology--the infinitive.

It seems reasonable to assume that a development like that of Tokharian, with a functionally distinct imperfect in *-ī-*, predated the development of the present tense in Slavic. Baltic might have shared that innovation. We know that in Slavic, the old imperfect and aorist merged as a general past tense and, with the development of a new imperfect, this combined past tense became the Slavic aorist. If the hypothesis is correct that the Slavic imperfect stem is directly related to the Baltic preterit stem, then we can assume that Baltic and Slavic shared the development of a new imperfect. This can be taken to imply that Baltic also shared in the merger of the old aorist and imperfect. This new imperfect totally supplanted the old past tenses in Baltic. Fortunately or unfortunately, this allows us to speculate freely about the shape of the past tense stems which were eliminated.

We should not assume a Balto-Slavic s-aorist of the type of Slavic *prosixŭ*. We know that derived stems of this type had no aorists in Sanskrit, and probably not in PIE. A preterit (old imperfect) stem in *-ī-*, however, is not at all unreasonable. We have only to assume a development like that of Tokharian. This old imperfect stem could have served as the basis for the later development both the s-aorist and the present in Slavic. The evidence that such a preterit stem might have existed in Baltic as well is precisely the infinitive. We know that in Baltic and Slavic, the preterit and the infinitive generally share the same stem, and this is often opposed to the present stem. As we have noted, the

Balto-Slavic infinitives are built on a stem with a *-ī-* suffix. Rather than trying to relate this stem to the *-t-* derivatives with short *-i-* in Indo-Iranian and Germanic, we can simply assume that it is a normal formation from an optative turned preterit in Balto-Slavic.

Before concluding this discussion, there is one formal problem that we must account for. The present tense in *-ī-* is obviously segmentally identical to the optative in *-ī-*, with the addition of the present endings. However, the two forms differ in accentuation. Short-vowel stems of the factitive-iterative class had recessive accent in the present, with accent on the ending in the 1st. sing., accent on the stem in the rest of the paradigm. This is preserved in Russian, where we find: *prošú, prósiš, prósit, prósim, prósite, prósjat*. The imperative (old optative), however, has accent on the suffix, as in R. *prosí, prosíte*. Stang (1957: 108-9) successfully argued that the present accent on the stem is the result of an accent retraction--the so-called neoacute retraction. If we restore the accent to its original position, it agrees with the place of accent of the imperative.

There is still the question of why the accent retracted in the present. Stang attributes this to the presence of a difference in intonation. The optative suffix has acute intonation under stress--which is what we expect from a syllable with a vowel plus laryngeal sequence. In noninitial position long vowels under this accent were shortened, giving forms like Čakavian SC *nošī* (Vaillant Vol III: 518)). The present tense suffix, however, shows up as long, as in 3rd. sing. Čakavian *nóšī* (Vaillant Vol III:518). Since long vowels retain their length under the Slavic circumflex in Serbo-Croatian, Stang (1957: 169) suggested that the *i* was under the circumflex intonation, and that in part the neoacute was a retraction from an noninitial circumflex.

At best it seems that the present tense differed in intonation from the imperative. At worst, it might mean that the *-ī-* is of different origin. Original Balto-Slavic circumflex is supposed to be limited to occurring on long vowels of diphthongal origin. This could mean that the present tense morpheme is from **-ei-*.

First we should note that we do not have here an attested circumflex. We have length on an unstressed syllable. We can account for the length without referring to circumflex intonation. Whenever, a long vowel of a suffix was sometimes under the neoacute (where it mandatorily retains length), sometimes not, it is retained as long (Stang 1957: 45-6). An example is **-īnik-* in S.C. *čětnīk*. The vowel was under the neoacute from retraction from a final jer (**ī* or **ū*) in words like *důžnīk* (**dužīnik`ū*). The present tense morpheme did occur under the neoacute. There were three accentual types with this inflection (Stang 1957:108-9). We have seen the recessive type, which was characteristic of factitive-iteratives with short vowel stems. There was also a type with fixed stem accent, as in SC *vīdīm* 'see'. Significantly, there is an end-stressed type (denominal derivatives) which, whenever the final vowel was a jer, would have accent retraction with the neoacute on the present tense *-i-*. This is directly reflected by the (long) rising accent in Čakavian: *želin, želiš, želi, želīm, želīte, želé* (Stang p. 109). Note that length is generalized in all three paradigms. This generalization of length, when under stress other than the neoacute, might well have produced a noninitial, nonrising accent. This would be Stang's internal circumflex, but it would be an innovation, rather than an archaism. Slavic in general shows a tendency to retract the accent from such syllables, with the results of the retraction identical to the neoacute. Thus when **pītáješi* became *pítāš* through loss of intervocalic *j* and contraction, we get Čakavian *pítāš* (Stang 1957:123). Although it may be difficult to distinguish between the effects of the accent retraction in the various cases, we can distinguish between the patterns of retention of

length under the original accent. The length from the contraction of *-aje-* is preserved wherever length can be preserved in the various Slavic languages (Stang 1957:49), thus Čak. *pítāš*, Sln. *končāš* (R. *končaješ*), Cz. *čitāš* (R. *čitaješ*). The same is true of the *-ī-* of the present tense (Stang loc. cit.). Specifically, we find Cz. *mluvíš*, with length. Slovenian preserves length in general only under stress, as in *podíš*, but Stang is probably correct in claiming that the falling intonation on the stem of words like *míslíš* is due to earlier length on the following syllable. (Note *dēlaš* from *délaješ*.) These patterns differ from the pattern of length preservation under the unambiguous original Slavic circumflex. Under this accent, which was limited to initial position, length is preserved only in Serbo-Croatian and Slovenian, e.g. *grād* in both languages. In Czech, however, the original circumflex shows up as short (*hrad*). We thus have evidence that the length on the *-i-* in words like *prōsīš* is secondary, and so is the hypothesized circumflex intonation on the long syllable.

The suffix of the optative/imperative did not occur under the neoacute, and had no motivation for the generalization of length. It has the expected short vowel in attested Slavic. In the factitive-iteratives, the place of accent in the present, as reconstructed, consistently agrees with the accent of the imperative--a fact which is not true of the denominal *i-* conjugation verbs, nor of those which come from perfects. Thus, once we have accounted for the length in the present, the accentual pattern supports the claim that derivation from the old optative is possible.

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